

How do interest rate differentials impact on euroization

Evidence from the OeNB Euro Survey

Julia Woerz
Foreign Research Division, OeNB

Bank of Albania, May 4, 2017

The views expressed are those of the author and do not necessarily reflect the views of the Oesterreichische Nationalbank or the Eurosystem.

<https://www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html>



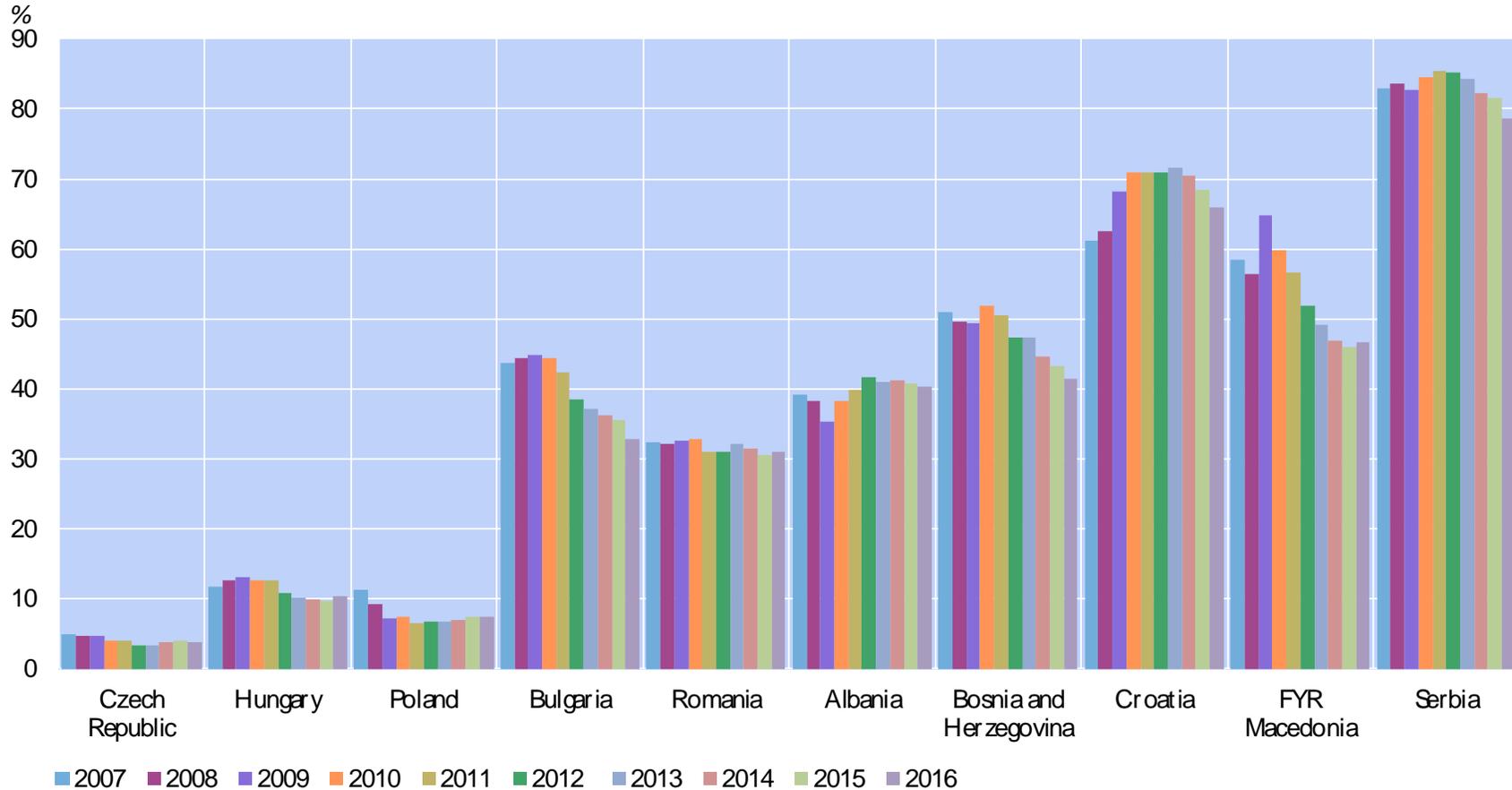
Overview

- **Euroization in Central, Eastern and Southeastern Europe (CESEE)**
- **Impact of (very) low interest rates on**
 - **Saving and borrowing decision**
 - **Choice between local and foreign currency**
- **Empirical evidence from OeNB's Euro Survey**
- **Policy implications**



High and persistent degree of asset euroization in SEE

Euroization index for the household sector or



Source: National central banks and OeNB Euro Survey.

Note: Euroization index = (euro cash + foreign currency deposits) / (total cash + total deposits).



What we know about drivers of euroization in SEE

Deposit substitution

...seems to be largely demand-driven

... households have broad access to a wide range of savings products in domestic and foreign currency

...is strongly related to monetary expectations (= insurance)

... but habits and/or network effects also play a significant role

Monetary expectations are influenced both by **past financial crises** as well as by **current policies** and quality of **institutions**

... surprisingly, there are no differences between age cohorts

Loans euroization

Demand and supply driven

Demand factors: most borrowers **had a choice** regarding the loan currency

- Lower interest rates
- Lack of trust in the local currency, inflation and exchange rate volatility
- Expectations of euro introduction
- Lack of knowledge of FX risk

Supply factors:

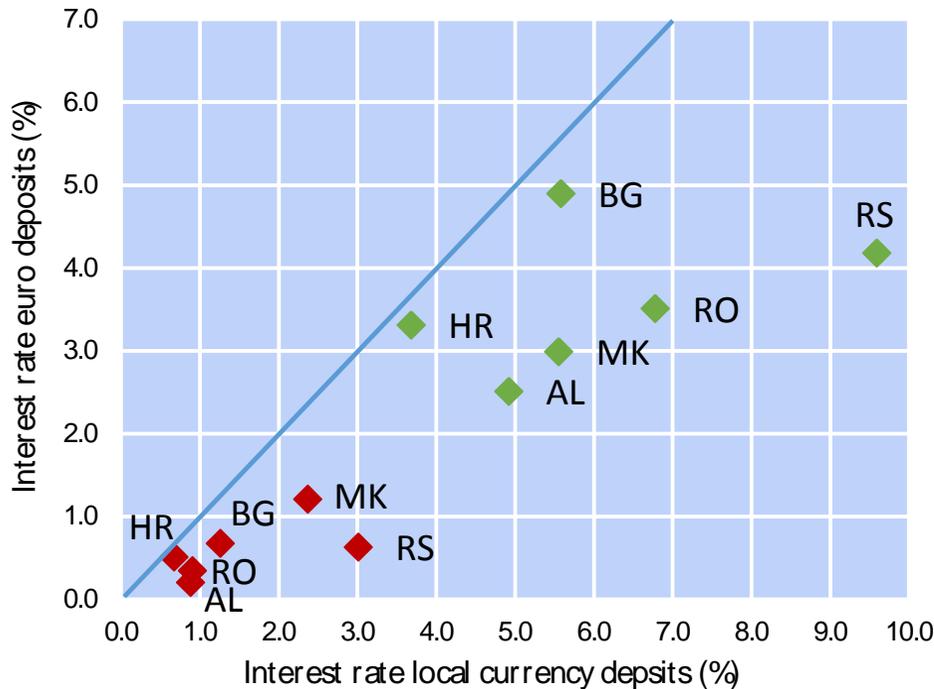
- Households' preference for FX deposits
- No significant effect of foreign funding



Decline in interest rate spreads between LC and EUR deposits

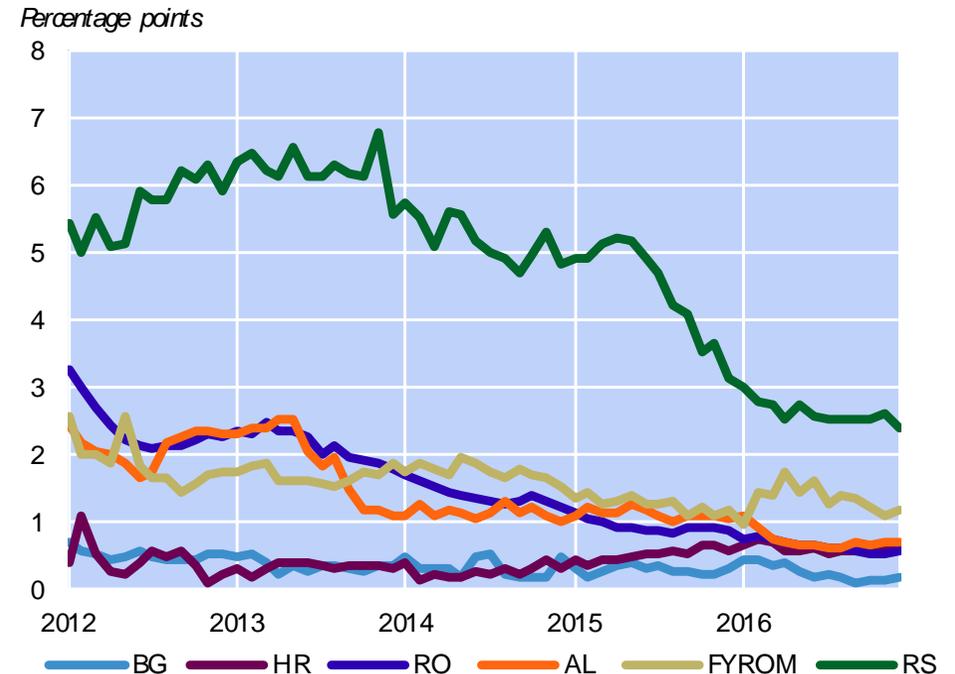
- ← Successful macroeconomic stabilization
- ← Spillover of negative interest environment

Interest rates for household deposits in SEE



Source: National central banks. Note: red dots = 31.12.2016, green dots 31.1.2012.

Interest rate spread on household deposits 2012-2016



Source: National Central banks own calculations.

Note: Interest rate spread on household deposits with agreed maturity, local currency vs. EUR



Theoretical considerations (I)

Impact of (very) low interest rate ...

- **Saving decision** → cash hoarding vs. deposits
 - ...reduces opportunity cost of cash hoardings → might increase cash hoardings
 - Preference for saving in cash is mainly related to mistrust in banks and weak institutions as well as network effects in the use of the euro for domestic payments → recent advances of trust in banks in some SEE countries
- **Borrowing / lending decision**
 - ...reduces cost of borrowing for households → might increase **demand for new loans**
 - ...compresses interest margin for banks → which might **increase volume** of lending
 - But some banks in SEE rather deleverage than increase lending → alternative forms of **non-bank lending** could gain market share



Theoretical considerations (II)

Impact of compressed interest rate spread between LC and EUR...

- **Saving decision**

- Majority of SEE households insure themselves against **purchasing power risk** through saving in euro
- Compressed spread reduces insurance premium for holding EUR deposits → saving in EUR even more attractive
- Yet, some household might rather search for yield → prefer relatively higher remunerated LC deposits

- **Borrowing / lending decision**

- For households: borrowing in FX less attractive, if the **FX risk** is perceived correctly
- Banks: compensate for the decline in the spread through an **increase in the volume** of lending

- If EUR deposits increase: banks have an additional incentive to increase lending in EUR

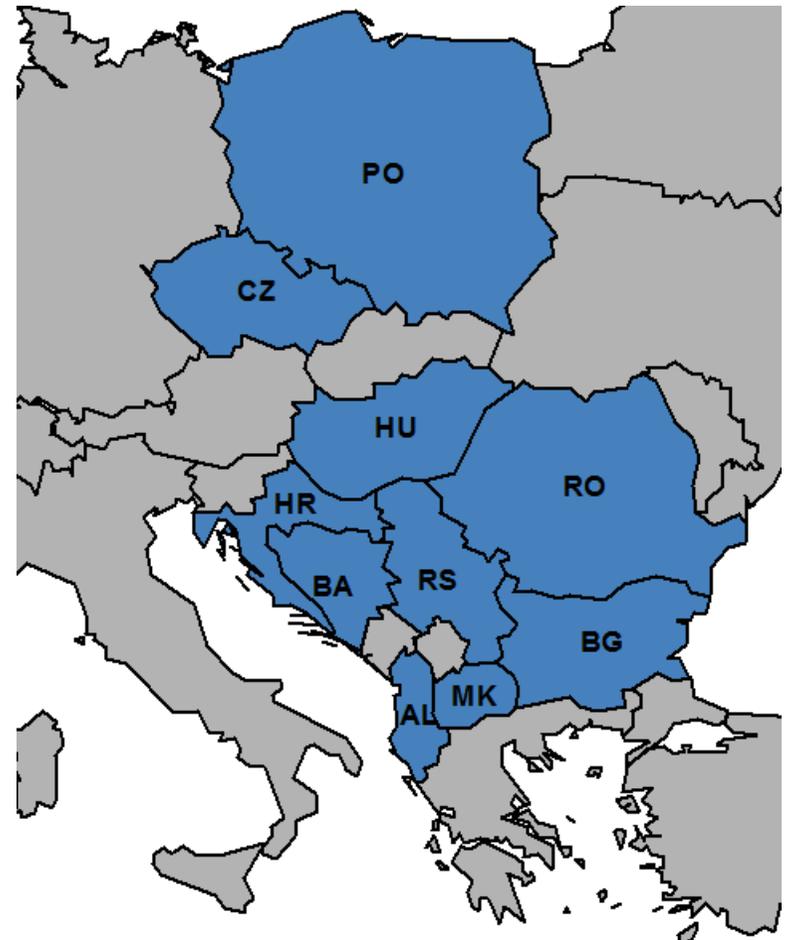


A representative survey of CESEE households

- Currently, the **OeNB Euro Survey** is conducted in the following ten countries:
 - 6 EU Member States: Bulgaria, the Czech Republic, Croatia, Hungary, Poland, Romania
 - 3 EU candidate countries: Albania, the former Yugoslav Republic of Macedonia, Serbia
 - 1 EU potential candidate country: Bosnia and Herzegovina
- Surveys are conducted in October/November. The first survey wave was in fall 2007
- Samples consist of 1,000 randomly selected respondents per country and represent the population over 14 years
- Samples are representative with respect to age, gender and regional distribution

Unique information on HH saving and borrowing **Harmonized design**

- Allows cross-country comparisons
- Allows identification of causal relationships
- Regional data and geographic coordinates of PSU

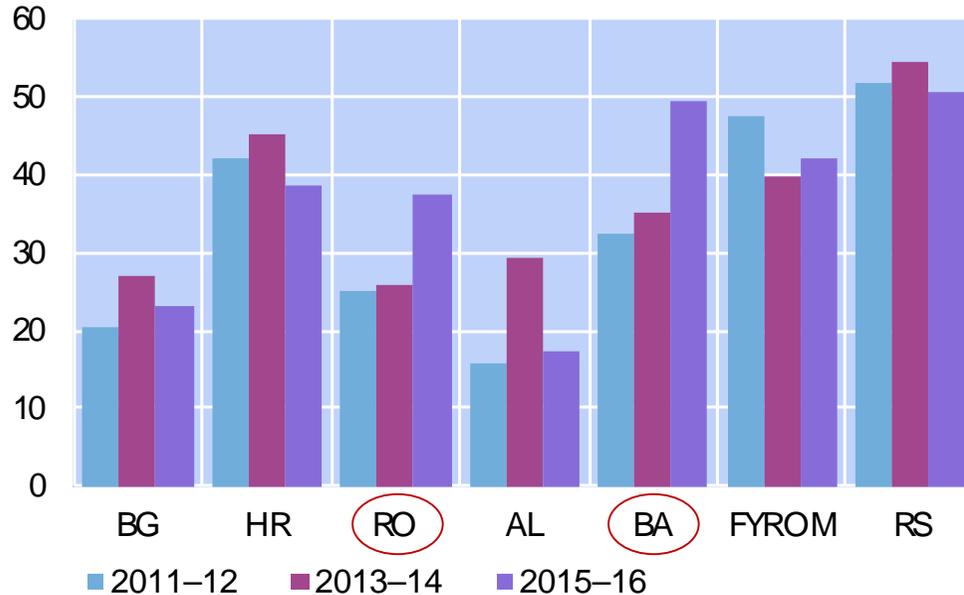




Some increase in cash holdings

Cash preference over time

% of respondents with savings deposits

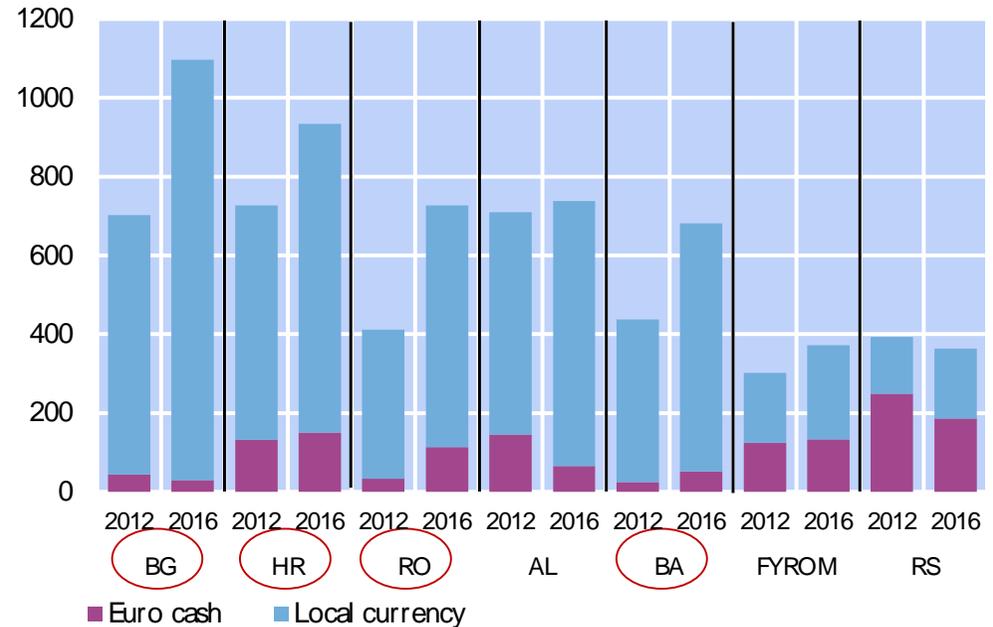


Source: OeNB Euro Survey.

Note: Percent of respondents who have a strong cash preference, derived from the statement "I prefer to hold cash rather than a savings account."

Real cash holdings per capita

in EUR



Source: National central banks, OeNB Euro Survey.

Note: Per capita holdings in local currency and euro projected for the population 15 years and older; adjusted for inflation.

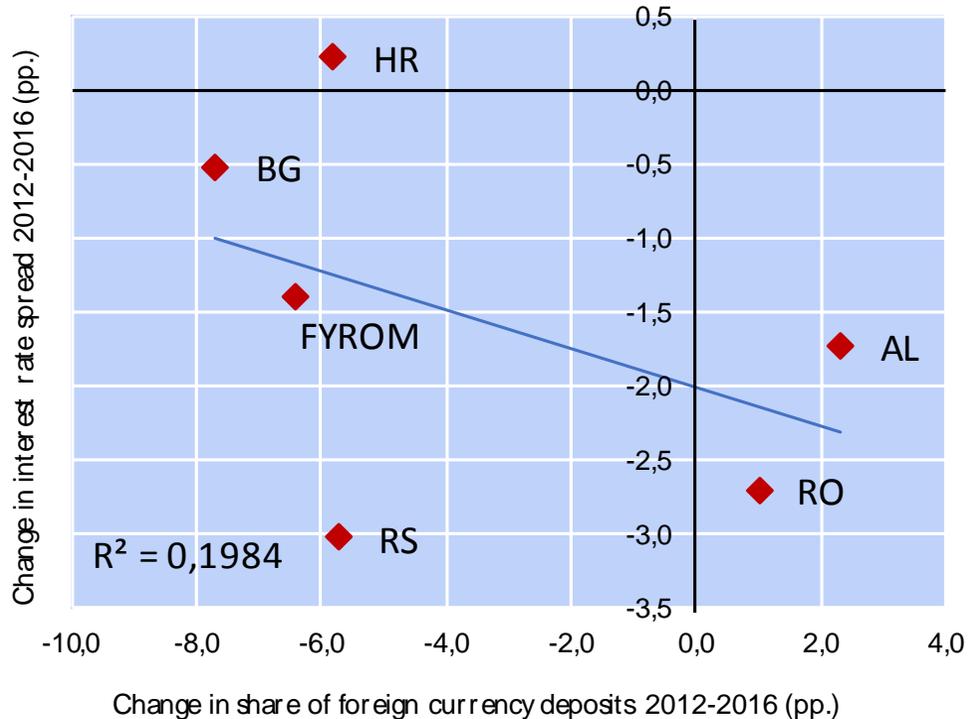
Combination of **weak institutions, lack of trust in banks and network effects** in the use of euro cash renders behavior of people to save in cash rather persistent. (Stix, 2013, JBF)

- Additional factors:**
- Very low level of interest rates on deposits: BG, HR, RO and AL
 - Banking turmoil or political tensions: BG and RO



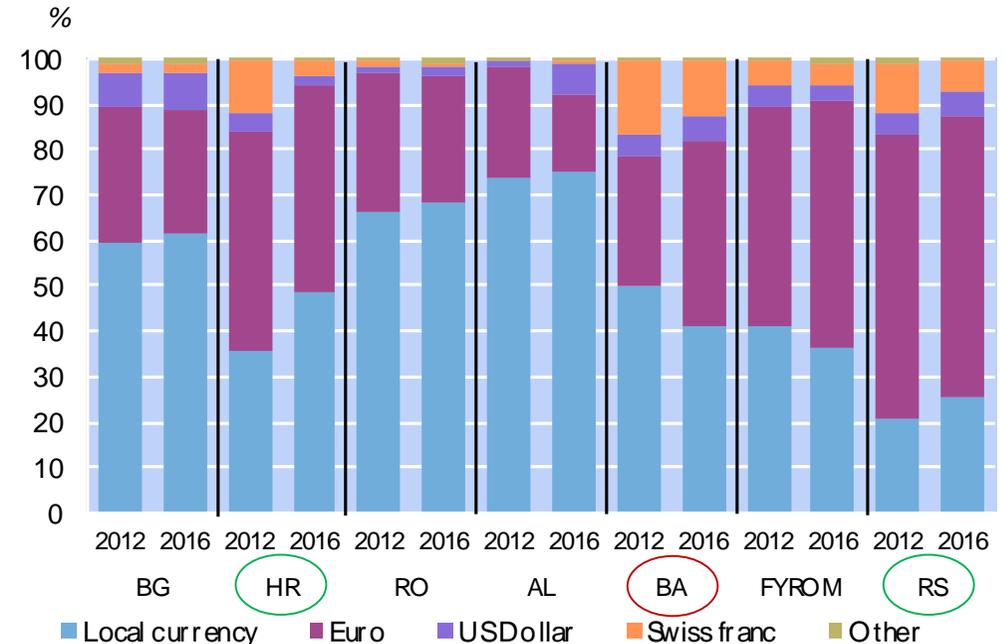
Impact on deposit substitution mixed across countries

Maintaining the spread associated with de-euroization



Source: National central banks, own calculations, household sector.

Preference for foreign currency deposits



Source: ÖNB Euro Survey.

Note: Answers refer to the question: "Suppose you had 2 average monthly salaries to deposit in a savings account. Would you choose to deposit this amount in ...". Respondents answering "Don't know" or "No answer" are excluded.

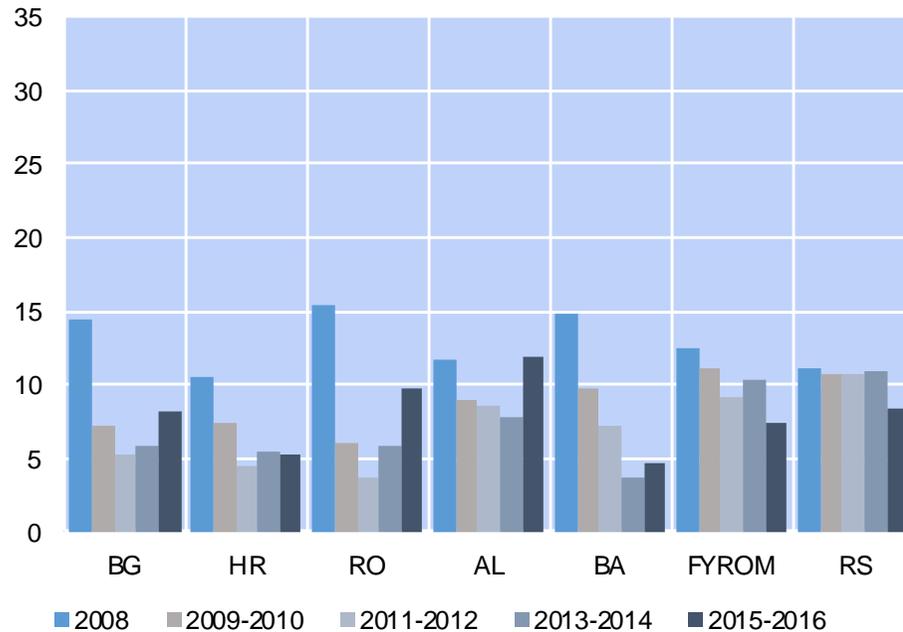
Simple time series regression: $change\ fx\ share = spread + inflation + change\ fx + vola\ fx$
→ Significant effects of *spread* for HR, FYROM and RS; but insignificant for AL and RO.



Crisis impacted household loan demand in general Yet recent rebound is tilted towards FX borrowing

Do you plan to take out a loan within the next year?

% of respondents (period average)

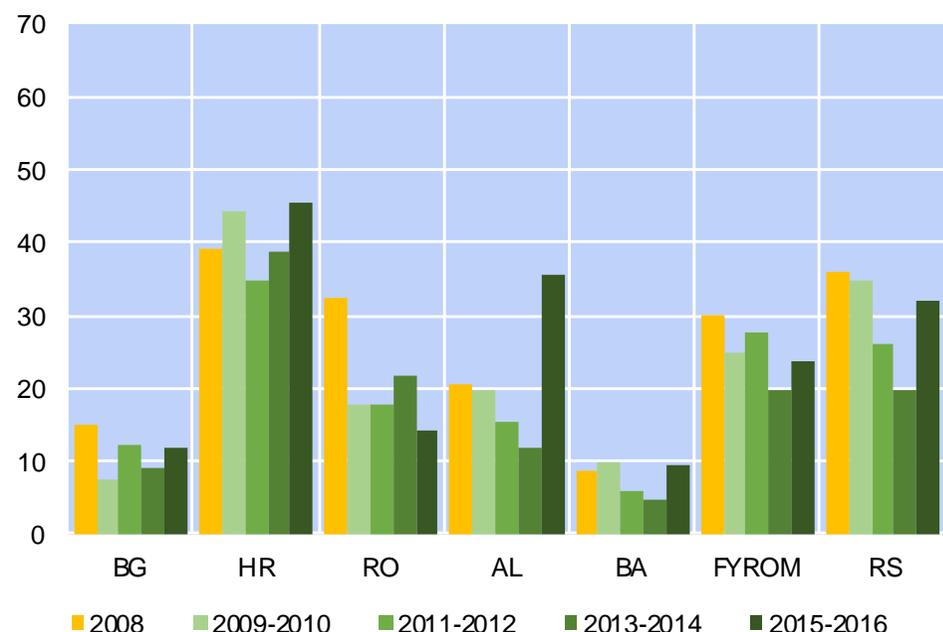


Source: CeNB Euro Survey.

Note: Respondents answering "Don't know" or who refused to answer are excluded.

Do you plan to take out a FX loan within the next year?

% of respondents planning to take out a loan (annual average)



Source: CeNB Euro Survey.

Note: Respondents answering "Don't know" or who refused to answer are excluded.

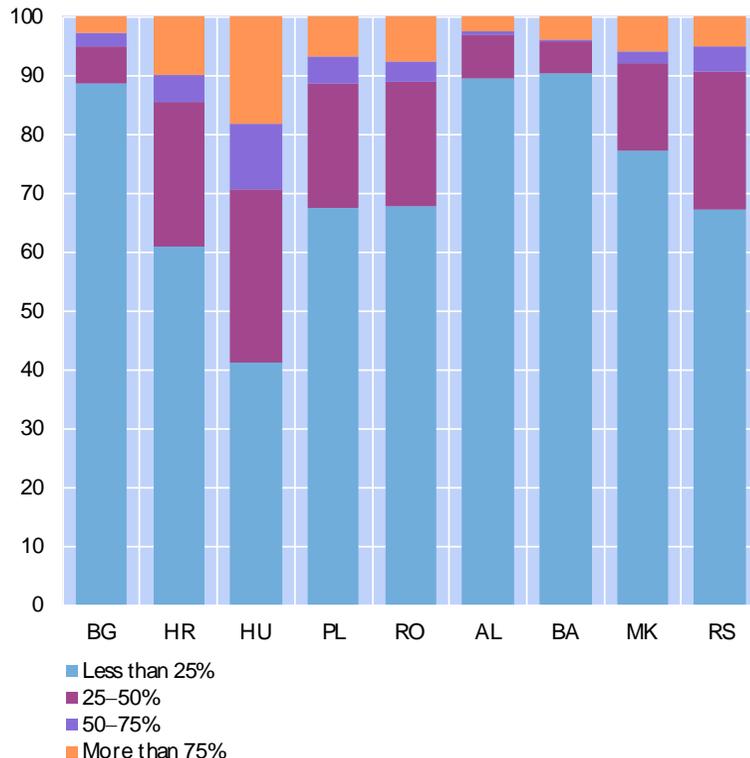


Recent measures of FX debt relief increase demand for FX loans in CESEE

Expectations of government bailout

What are the chances that the government will help borrowers who are in trouble with their loan?

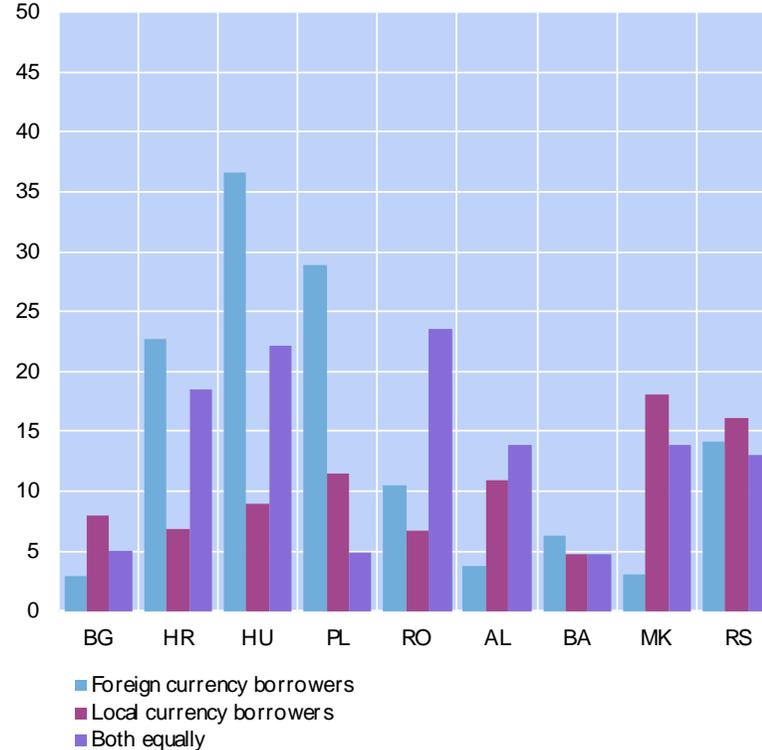
% of respondents



Source: Beckmann (2017) based on OeNB Euro Survey, fall 2015.
Note: Abbreviations represent the two-digit ISO country code.

Is the government more likely to help local currency or foreign currency borrowers?

% of respondents





Policy implications for de-euroization and financial stability

- Compressed interest rate spread **fosters deposit euroization** → raise the „insurance premium“ for FX savings (reserve requirements, tax, etc.) but be aware of the alternative: euro cash hoardings
- Compressed interest rate spread **increase supply and demand for FX loans**
 - Micro-prudential supervision of lending practices
 - Raise potential borrowers' awareness of the FX-risk (communication!)
 - Regulate FX lending, such that only hedged borrowers or unhedged borrower with sufficient risk bearing capacity can borrow in FX
 - Higher provisions for FX loans
- **Increase in real cash holdings** per capita → raise public knowledge about the deposit insurance schemes



Selected OeNB Euro Survey publications

Deposit euroization and euro cash holdings

- Brown, M., Stix, H. 2015. The Euroization of Bank Deposits in Eastern Europe. *Economic Policy* 30(81), 95–139.
- Stix, H. 2013. Why do people save in cash? Distrust, Memories of Banking Crises, Weak Institutions and Dollarization. *Journal of Banking and Finance* 37(11), 4087–4106.
- Scheiber, T., Stern C. 2016. Currency substitution in CESEE: Why do people prefer euro payments? *Focus on European Economic Integration*, Q4/16, 73–98.
- Beckmann, E., M. Hake and J. Urvova. 2013. Determinants of Households' Savings in CESEE, *Focus on European Economic Integration* Q3/13, 8–26.

Foreign currency loans

- Beckmann, E. 2017. How does foreign currency debt relief affect households' loan demand? Evidence from the OeNB Euro Survey in CESEE. *Focus on European Economic Integration* Q1/17, 8–29.
- Crespo Cuaresma, J., Fidrmuc, J., Hake, M. 2011. Determinants of foreign currency loans in CESEE: A Meta-Analysis. *Focus on European Economic Integration* Q4/14, 69–87.
- Fidrmuc, J., Hake, M., Stix, H. 2013. Households' Foreign Currency Borrowing in Central and Eastern Europe, *Journal of Banking and Finance*, 37(6), 1880–1897.
- Beckmann, E., Roitner, A., Stix, H. 2015. A Local or a Foreign Currency Loan? Evidence on the Role of Loan Characteristics, Preferences of Households and the Effect of Foreign Banks. *Focus on European Economic Integration*, Q1/15, 24–48.
- Stern, C. 2017. Fintechs and their emergence in CESEE. *Focus on European Economic Integration* Q3/17. forthcoming.

Further publications

Thank you!

Information on the OeNB Euro Survey is provided at

<https://www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html>

Negative Euro Area Interest Rates and Effective De-euroization Strategy

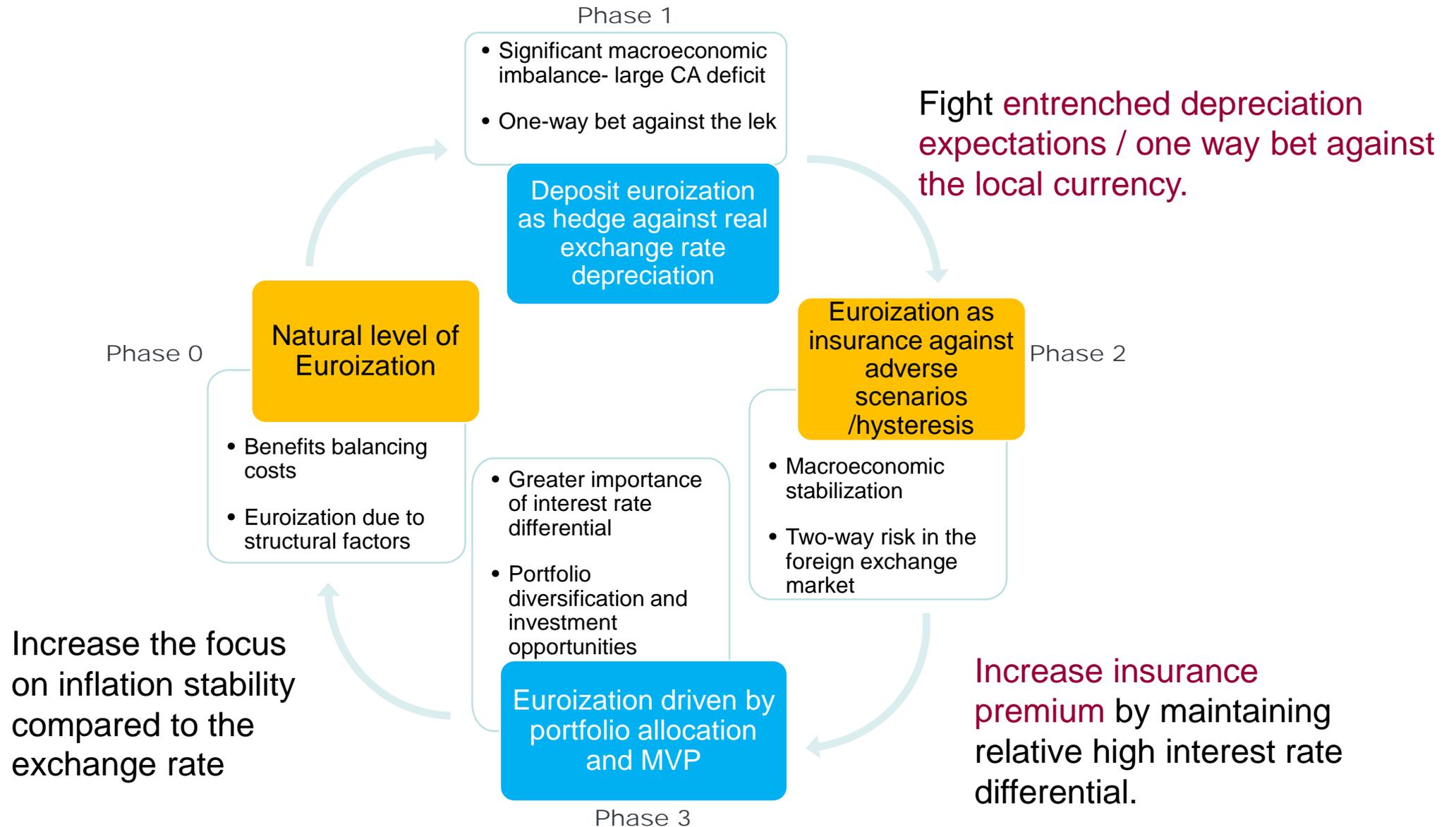
Romain Veyrune

Monetary and Capital Markets Department

5/4/2017



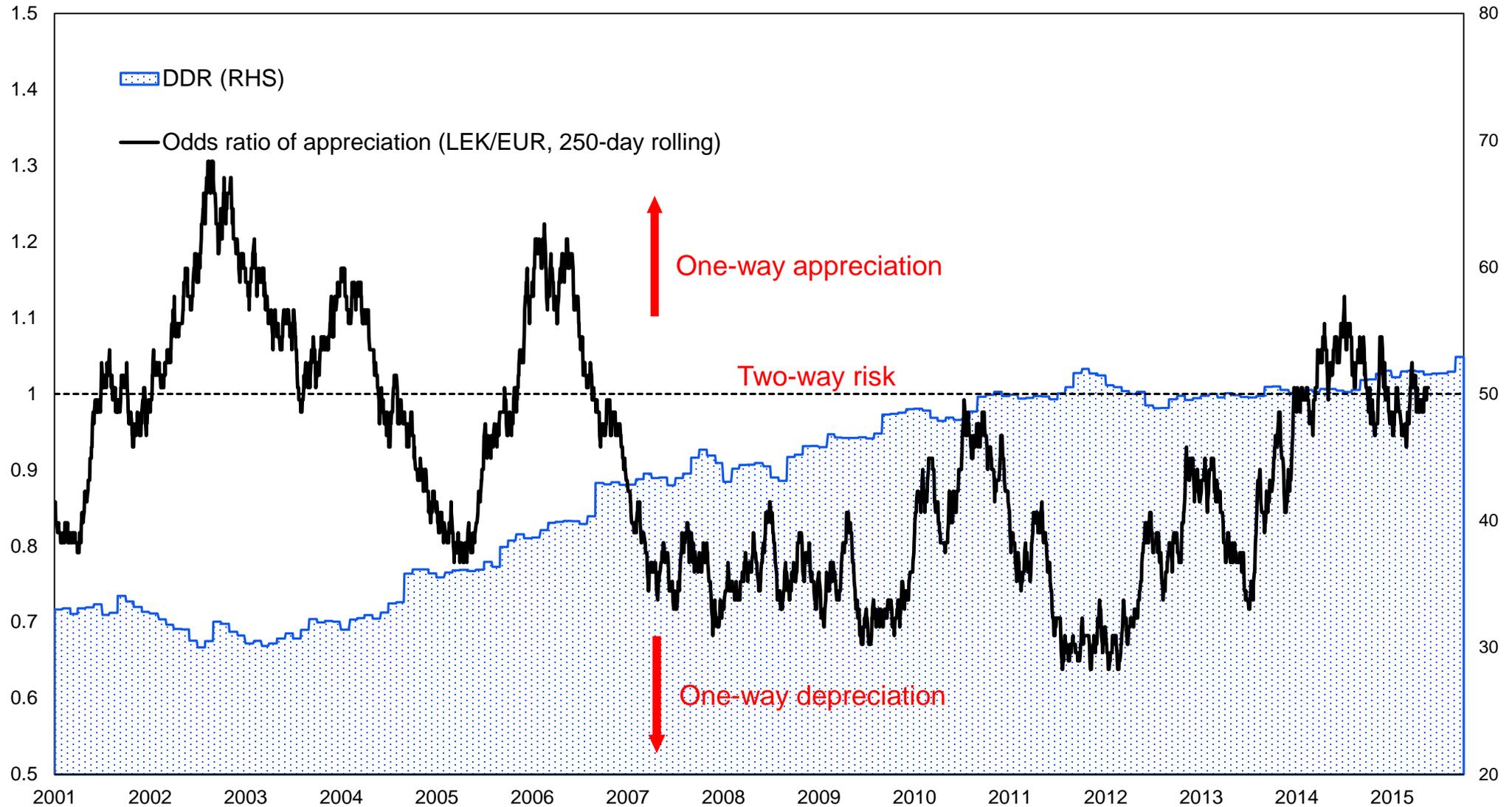
Strengthening deposit naturalization



Phase 0 : Optimal level of Euroization

Costs	Benefits
<p data-bbox="596 572 1021 672">Loss of Seigniorage (0.4 – 0.6% of GDP)</p> <p data-bbox="522 796 1103 896"><u>Hampering monetary policy effectiveness</u></p> <p data-bbox="588 1051 1037 1096"><u>Financial system risk</u></p>	<p data-bbox="1498 601 1824 646">Financial depth</p> <p data-bbox="1444 825 1880 871">Market development</p>

Phase 1 : Maintaining two-way risk in the FX market



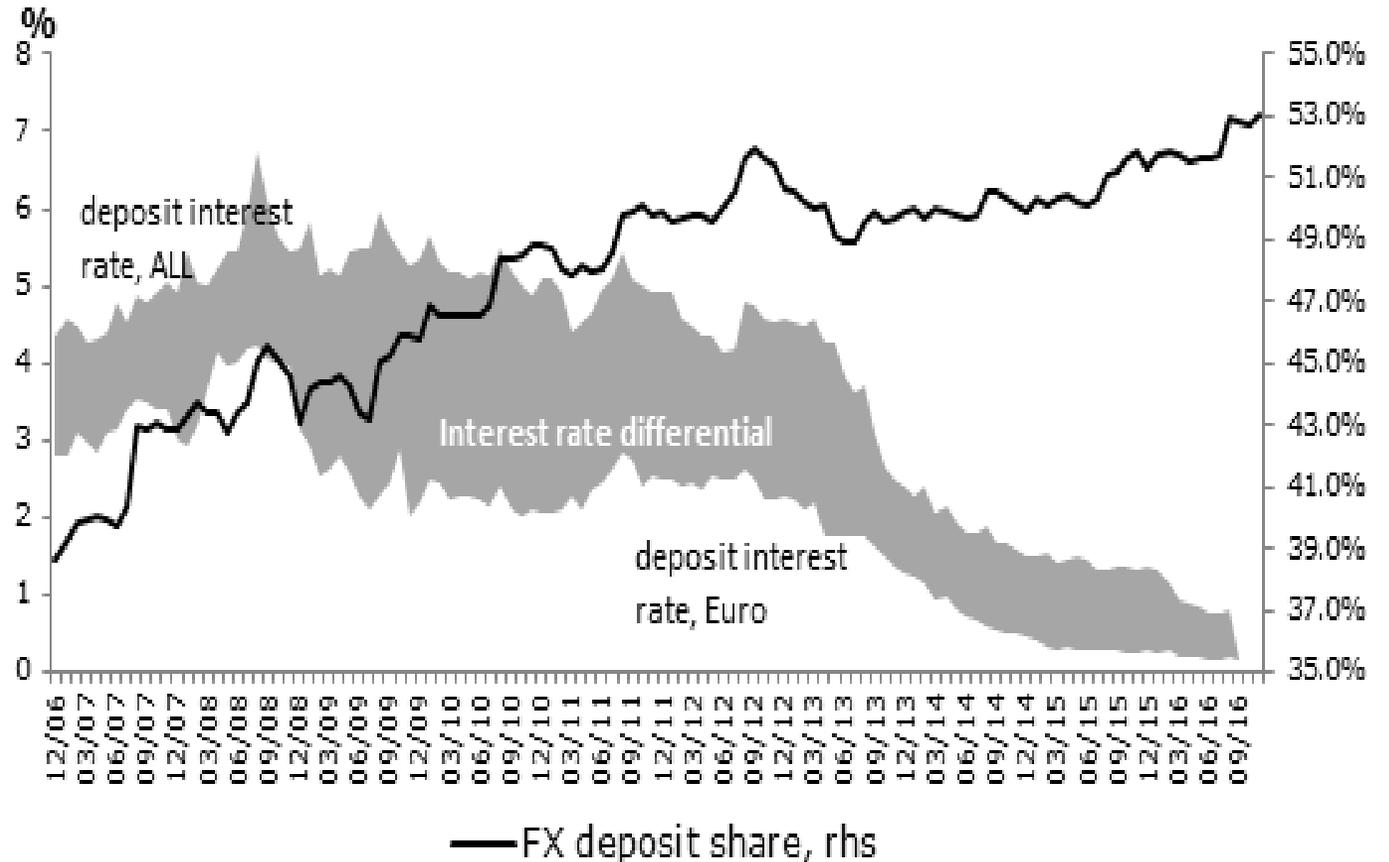
Phase 2 : Why would euro negative interest rates matter for de-euroization?

Narrow FX intermediation spread

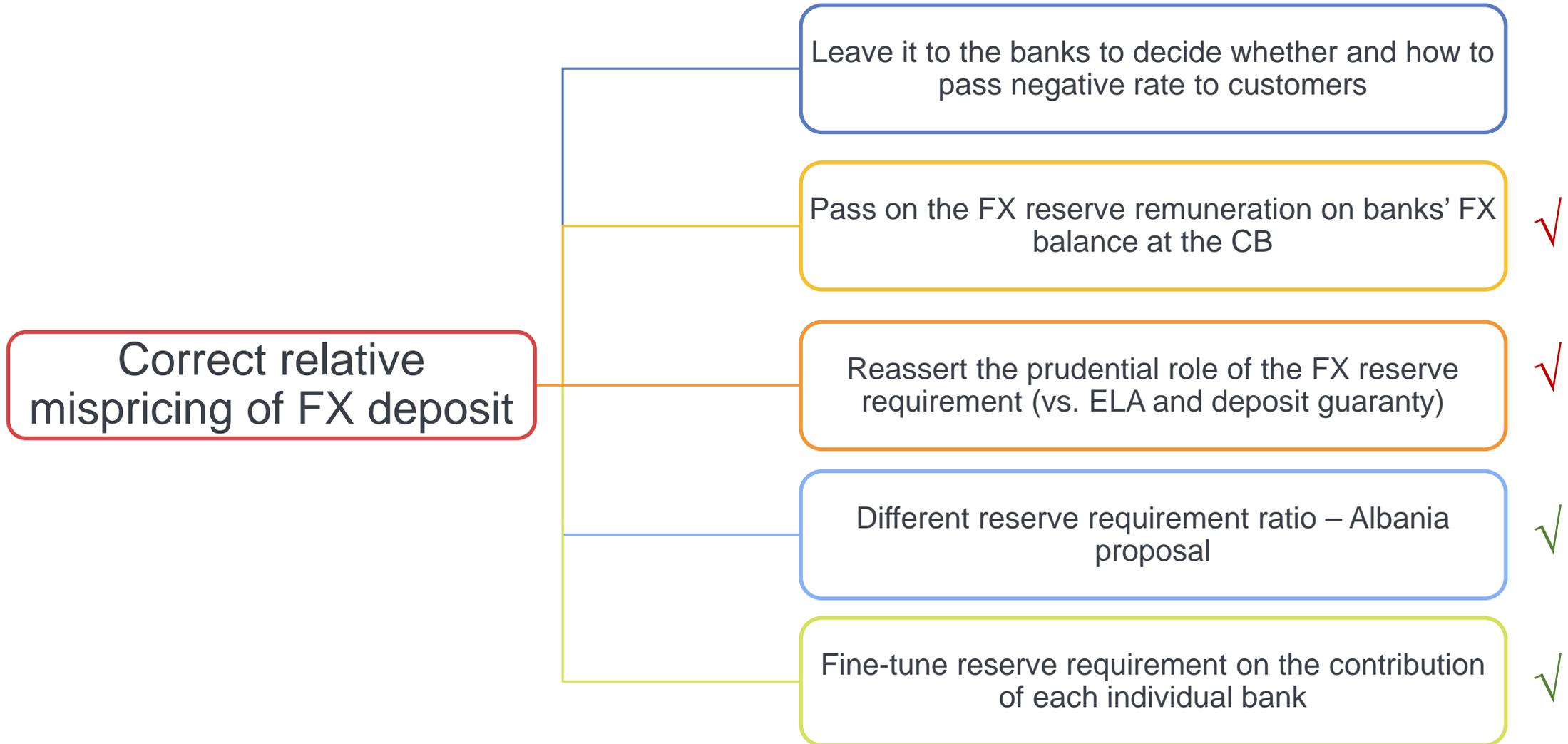
- FX loan index to EURIBOR
- Deposit floored at zero and high reliance on deposit funding

FX deposits often involuntarily subsidized at low rates via regulation and reserve requirement

Reduced euro deposit insurance cost

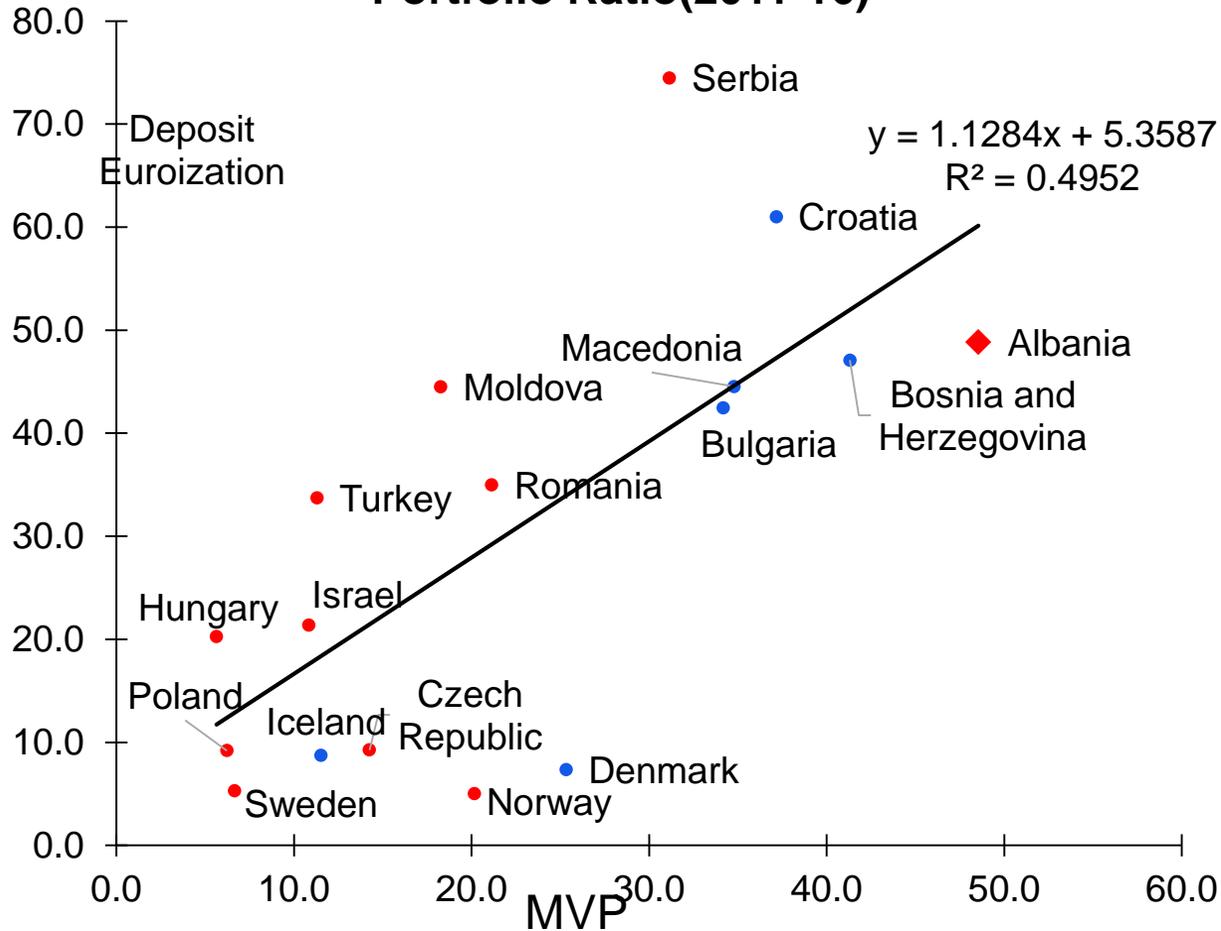


Phase 2 : increasing euro deposit insurance cost in the context of euro negative rates



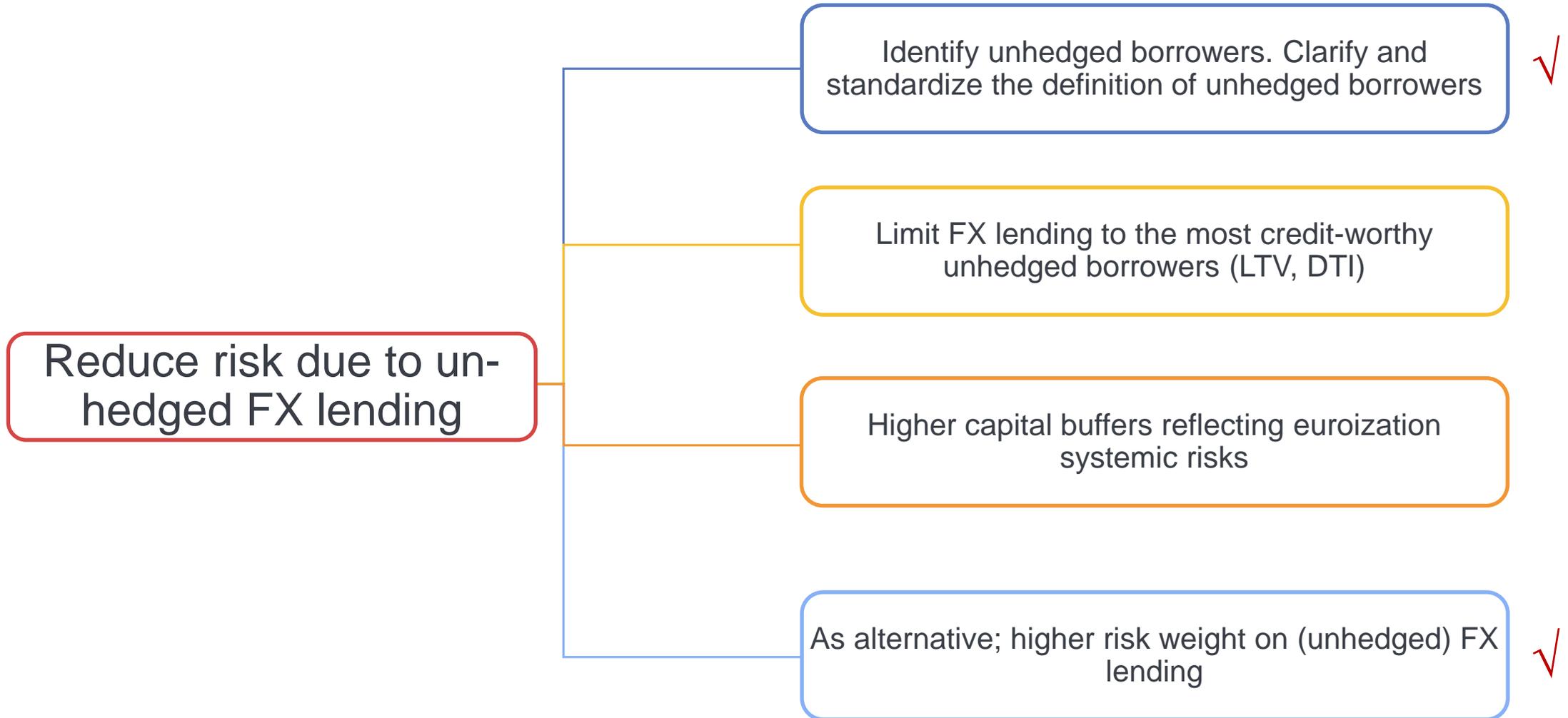
Phase 3 : Portfolio optimization

Deposit Euroization and Minimum Variance Portfolio Ratio(2011-16)

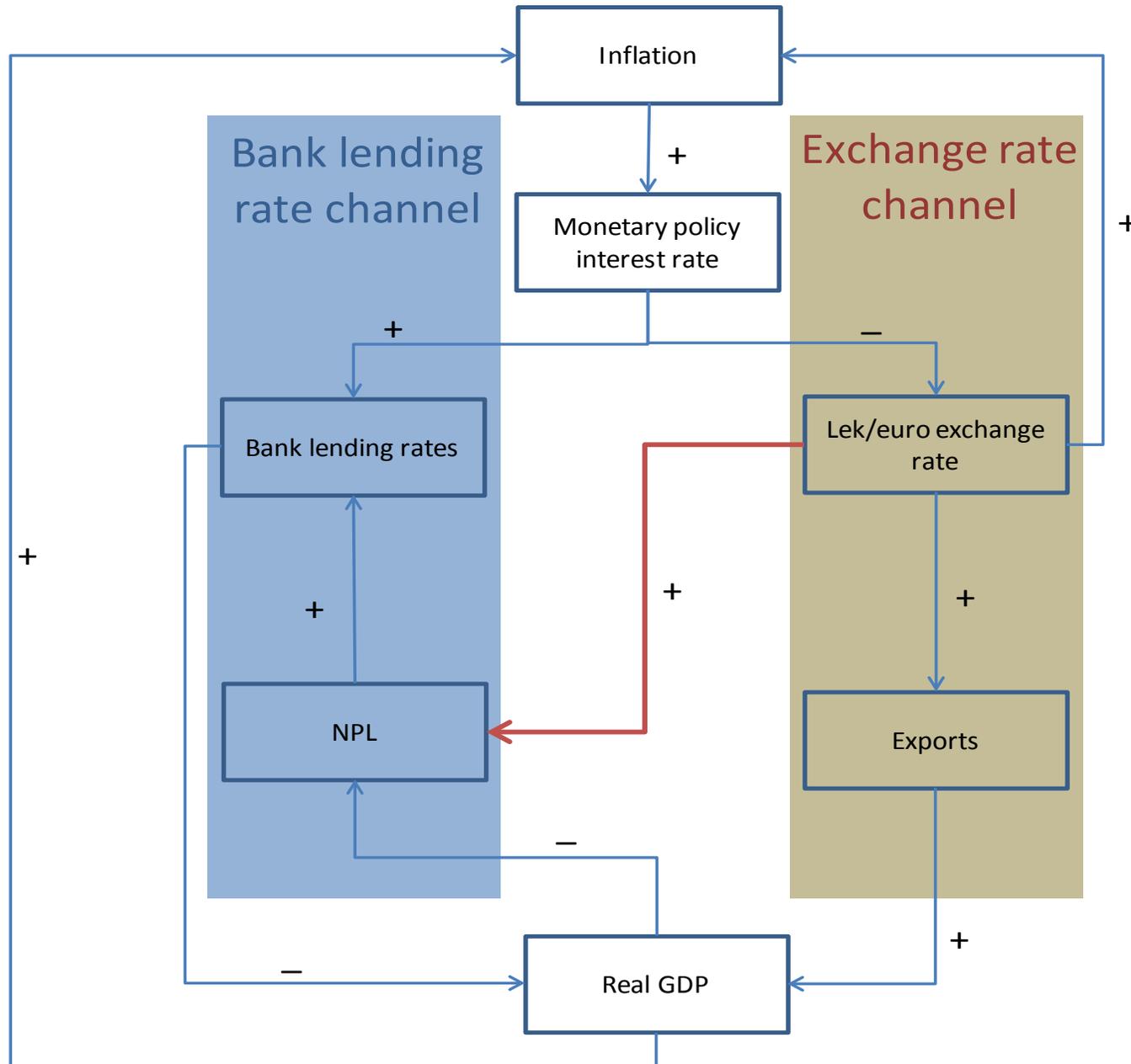


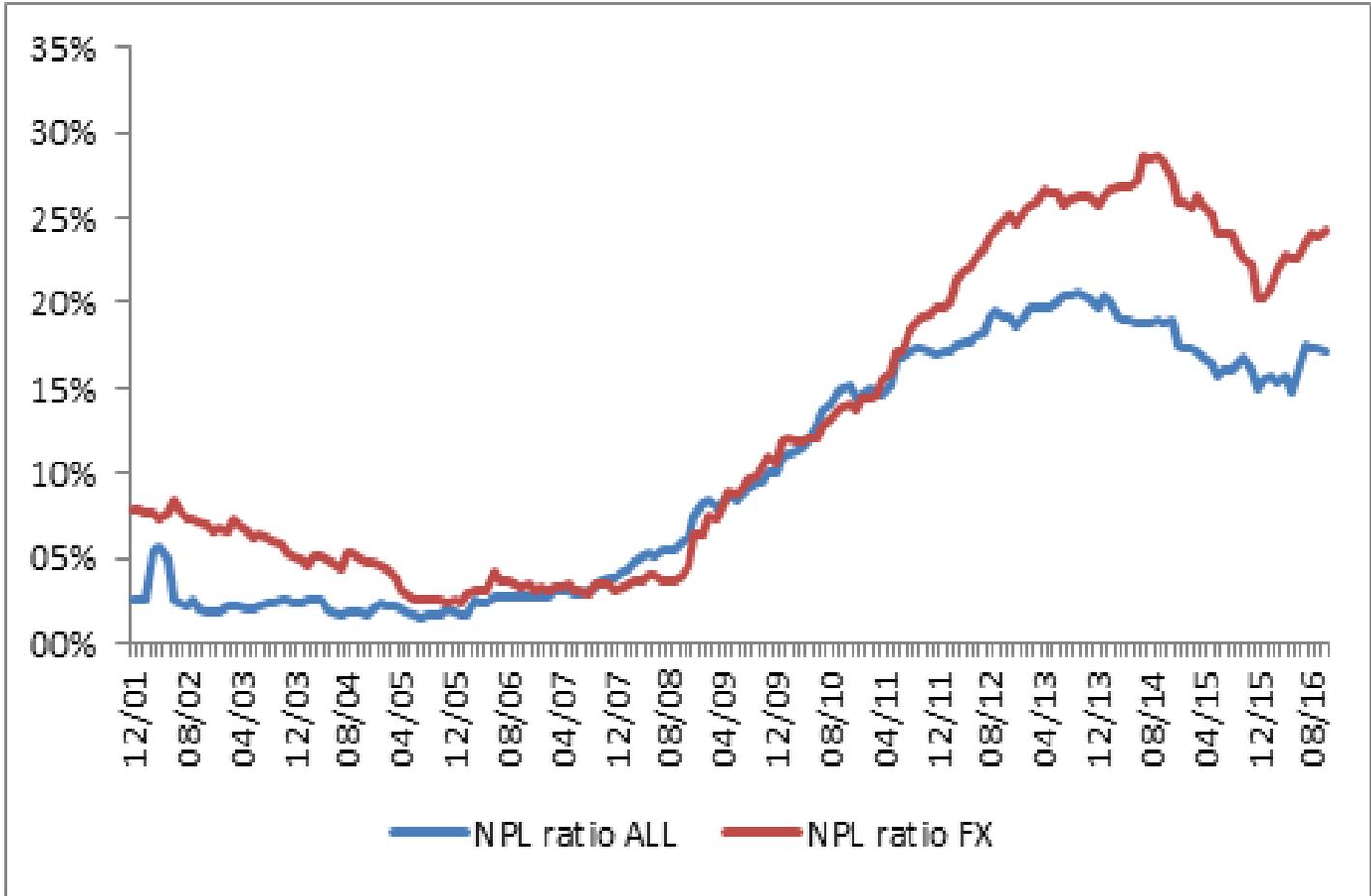
Country (2009-2016)	Deposit dollarization	MVP	Inflation Variance	Real ER Variance	Inflation-ER Covariance	Exchange rate arrangement
Albania	41.7	47.1	0.70	0.87	0.55	Floating
Bosnia and Herzegovina	49.9	40.6	0.21	0.43	0.19	Currency board
Bulgaria	47.7	32.7	0.23	0.76	0.22	Currency board
Croatia	62.1	34.7	0.27	0.71	0.29	Crawl-like
Czech Republic	10.5	11.6	0.14	2.13	0.06	Stabilized
Denmark	6.8	24.0	0.14	0.52	0.00	Conventional peg
Hungary	18.9	5.7	0.22	4.28	0.08	Floating
Iceland	8.8	11.0	0.23	4.85	-0.01	Floating
Israel	21.1	10.1	0.15	1.48	0.01	Floating
Macedonia	48.7	35.1	0.30	0.54	0.25	Stabilized
Moldova	45.6	19.4	0.55	3.26	0.16	Floating
Norway	3.7	19.1	0.18	1.77	0.16	Free floating
Poland	12.1	4.1	0.09	4.25	-0.01	Free floating
Romania	38.4	18.7	0.29	2.22	0.30	Floating
Serbia	69.9	29.4	0.51	2.40	0.59	Floating
Sweden	5.5	6.8	0.14	2.07	-0.01	Free floating
Turkey	36.3	12.6	0.66	5.10	0.17	Floating

Phase 3: Pre-condition for more exchange rate volatility



End of the presentation.





Implications of low interest rates for financial stability in Albania

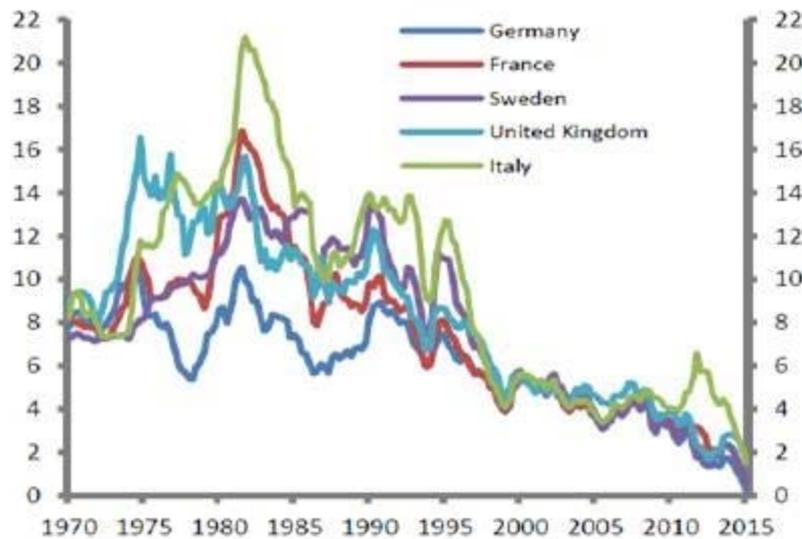
By Klodion Shehu
Financial Stability Department
Bank of Albania

Prepared for Conference “Negative Euro area interest rates and spillovers on Western Balkan Central Bank Policies and Instruments”

*May 4-5, 2017
Tirana, ALBANIA*

Interest rates are at historically low levels; Contributing factors do matter;

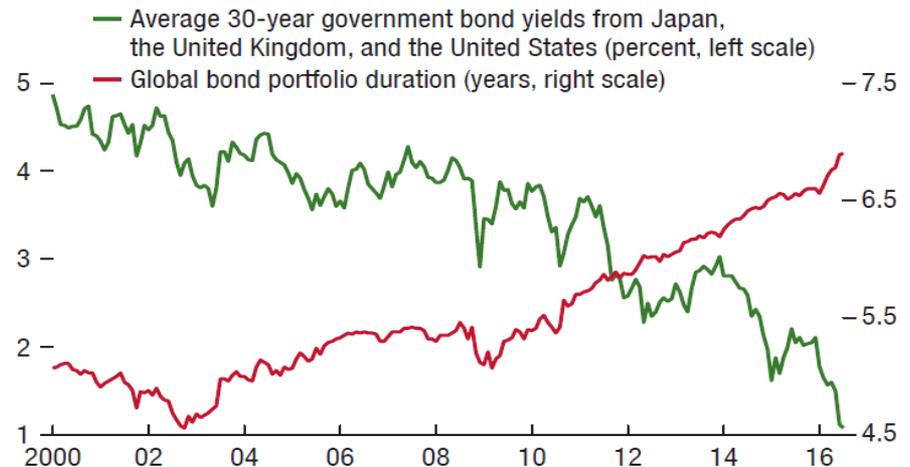
1: 10-yr sovereign bond yields, selected EU countries (%)



Source: IMF

Note: From ESRB Annual Conference, September 2016

2: Global Bond Portfolio Duration



Sources: Barclays Capital; and Bloomberg L.P.

Note: Taken from IMF Global Financial Stability Report, October 2016

- **Structural factors:** demographics, possible lower rate of innovation (other than digital) -> higher propensity to save, higher preference for safe assets -> “low for long”;
- **Cyclical factors:** very high leverage until GFC -> low interest rates are needed to de-leverage and close the Output gap, things will “normalize” after that -> “back to normal”.
- *No definitive answer – better prepare for both!*

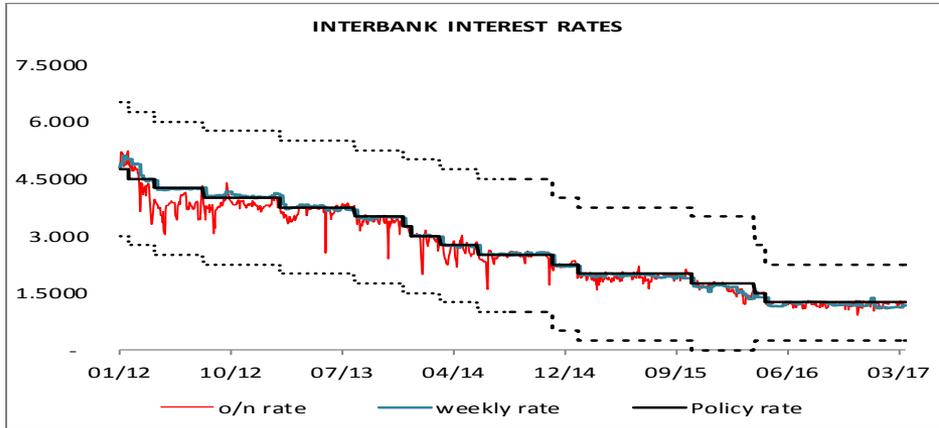
How low interest rate affect financial stability – *it will depend if “low for long” or moving “back to normal”*

Impact from Low Interest Rate Environment in:	Banks	Other Financial Institutions	Private non-financial entities	Markets
Profitability	Net interest Income: Lower Net Interest Margins (more sensitive for those with higher weights of deposits in liabilities; inflexible cost structure)	Net interest Income: Insurance/Pension Funds: Guaranteed return / defined benefits (more sensitive for Life Insurance companies)	Reducing debt servicing costs, hence improving profitability/viability for existing borrowers; possible lower incomes for savers.	Increasing duration, possibly higher asset (financial and real asset) prices;
<i>Possible mitigation</i>	<i>Search for yields; Increasing fee-generating products/services; further cost cutting</i>	<i>Moving toward interest rate-linked products</i>		
Risk Taking	Possibly higher investment/assets risk; funding structure risk; risks to viability.	Similar to banks	More exposed to market risk; Increasing leverage for new borrowers (debt-to-income, debt-to-capital could deteriorate quickly)	Higher concentration on investment assets; more interconnected system' possibly higher systemic risk
Structural changes	Lower profitability (expectation) could induce efforts to divest/consolidate	Newcomers, with more competitive cost structure could join in.	More interest to raise finance directly in the market	Move toward a more market-based system
<i>Challenges for regulators</i>	<i>How to balance/prioritize between higher capital needs, with lower profitability and (possibly) lower financial intermediation?</i> <i>How to ensure orderly exits and valid new-entrants in the market?</i>	<i>Is there a need and how to adjust the supervisory perimeter?</i> <i>What about possible (unregulated and) unfair competition?</i>	<i>How to effectively reach households/firms and alert about risks? How to ensure sufficient transparency on prices of financial services? How to meet the need to collect better data from the real sector?</i>	<i>How to improve rules, procedures, inter-institutional coordination to accommodate for possibly increasing systemic risk?</i>

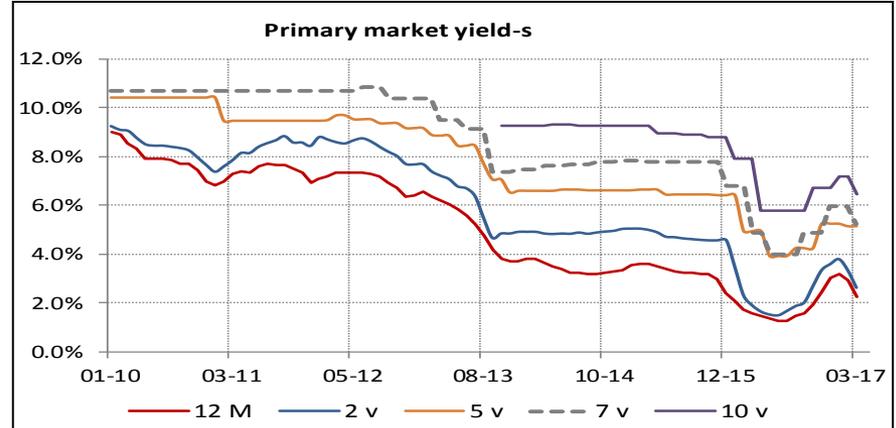
Interest rates in Albania

- they have been declining to reflect overall economic conditions and subdued inflationary pressures;
- but there is still space, if needed.

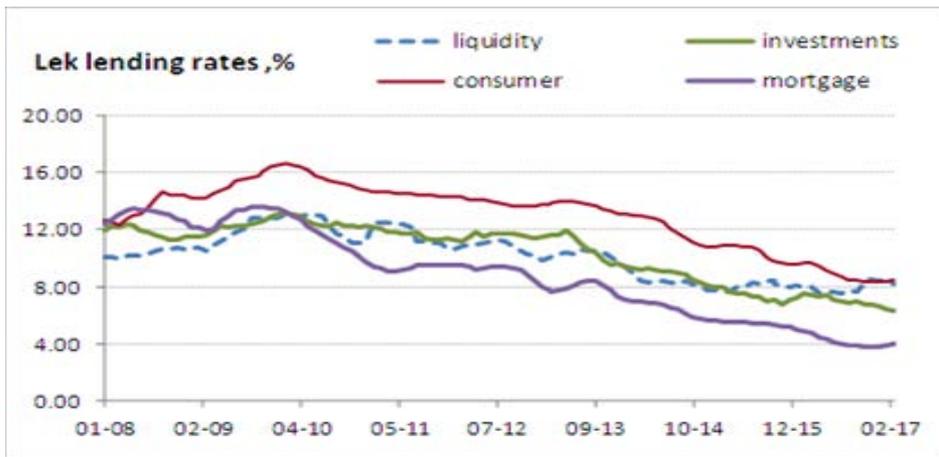
1 -



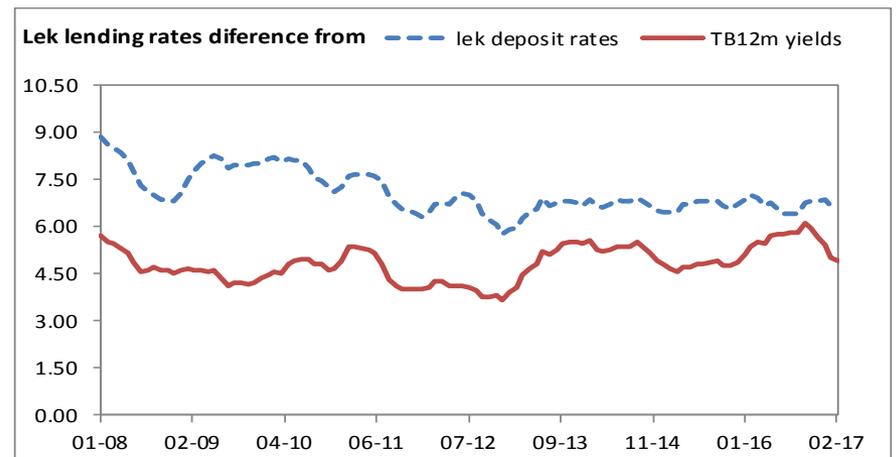
2 -



3 -



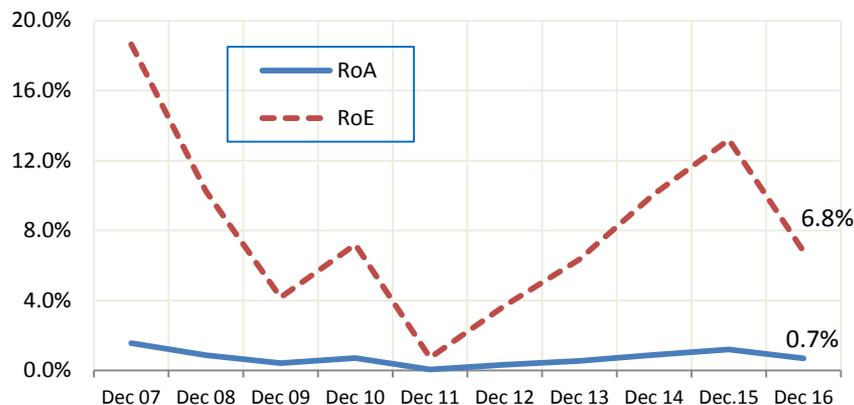
4 -



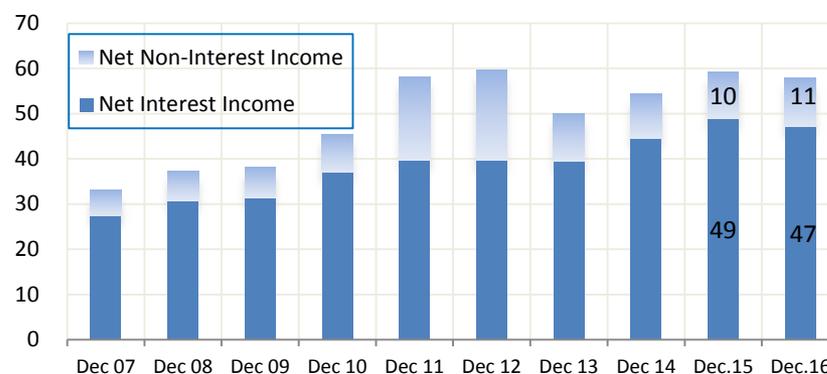
Profitability for the Albanian banking sector

- the banking sector has been profitable and, so far, able to reduce activity costs to compensate for lower revenues;
- the NNII has not changed noticeably;

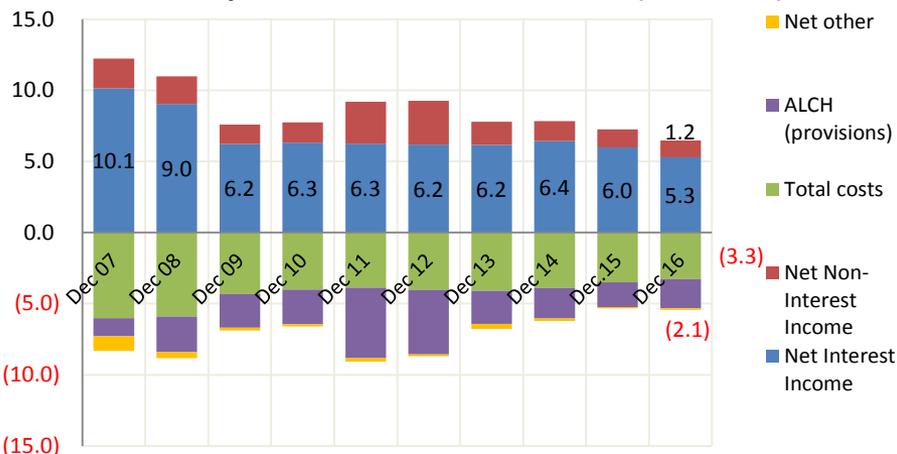
1 - RoA and RoE (%)



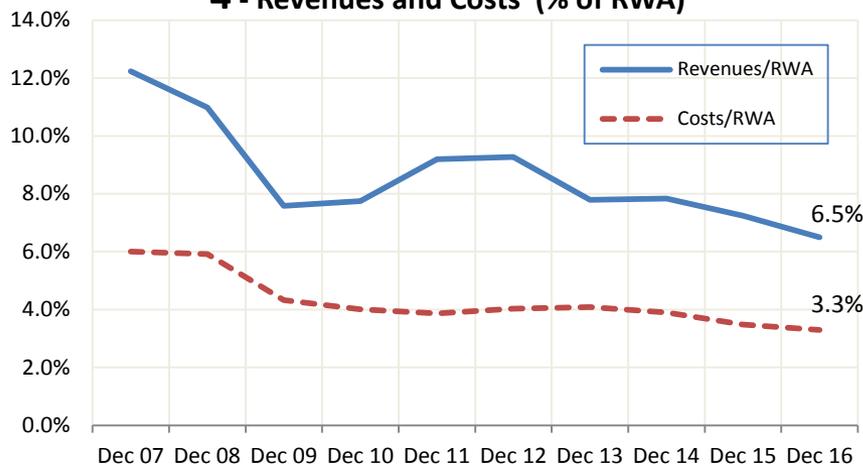
2 - Composition of Earnings (Bio Lek)



3 - Composition of net financial result (% of RWA)



4 - Revenues and Costs (% of RWA)

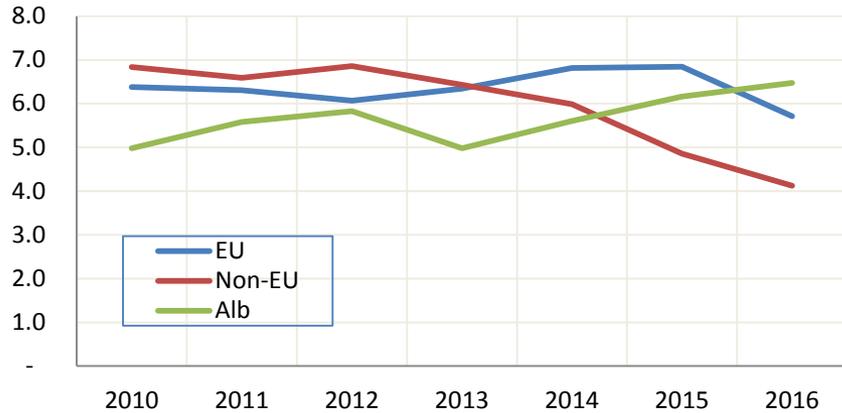


Profitability for the Albanian banking sector (cont.)

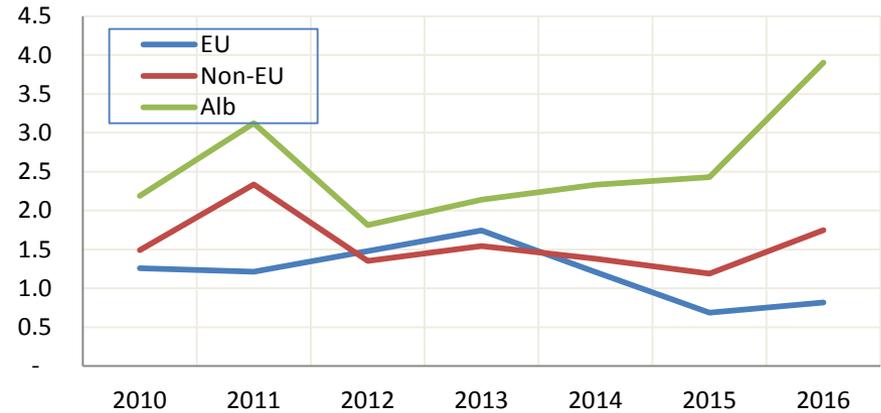
Non-EU banks: lower NII have been followed with lower Costs and Provisions;

EU and Alb banks: have seen stable or rising NII, with similar trends in Costs and Provisions.

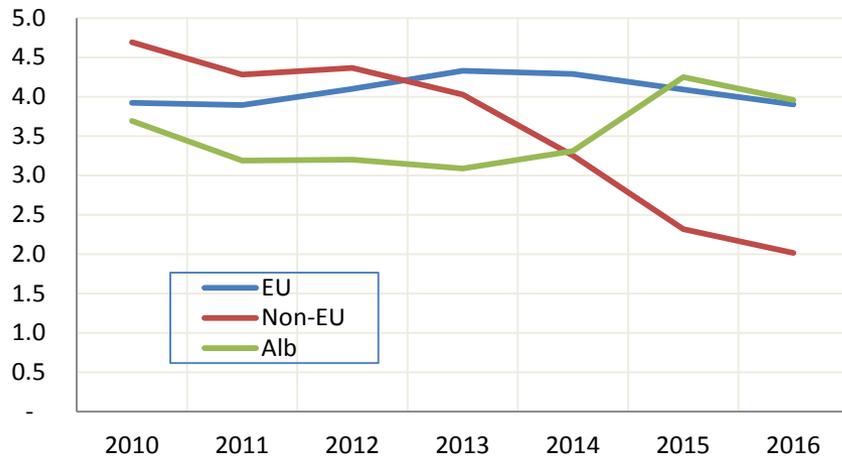
1 - NII/RWA (%)



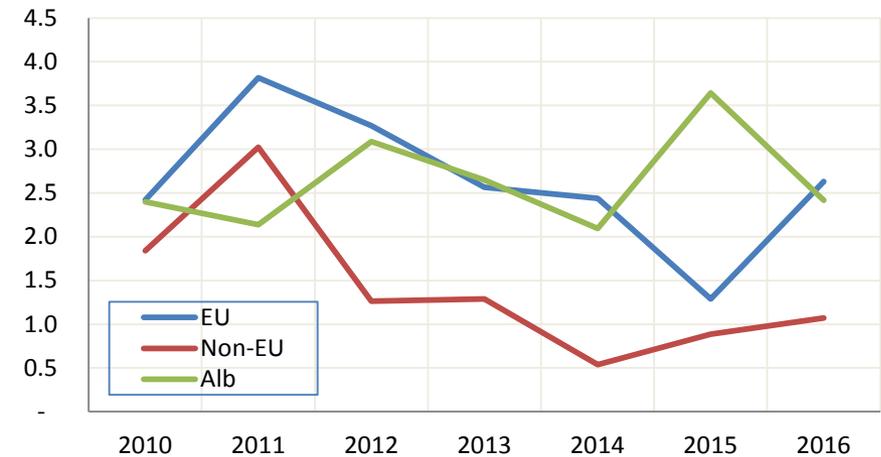
2 - NNII/RWA (%)



3 - Costs/RWA (%)



4 - Prov/RWA (%)



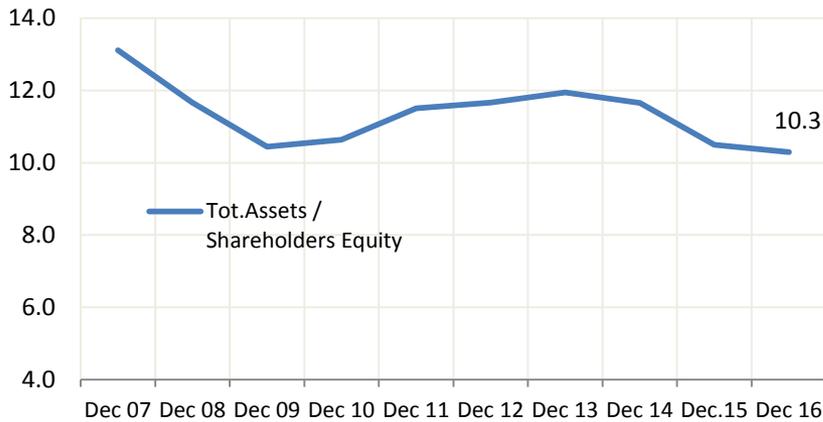
Risk taking

- Low interest rate are supposed to encourage some risk taking;
- But in “low-for-long” interest rate environment, the problem is excessive risk-taking, through:
 - build-up of leverage /search for yield – for banks, real agents;
 - (un)sustainable rise of asset prices – financial and real estate assets;
 - (mis)allocation of capital (maturity transformation) – ability to continue financial intermediation with investment in quality assets;
- The sensitivity for banks could be higher given:
 - Possible changes in funding structure;
 - Changes in currency composition of balance sheet and rising exposures to market risks;

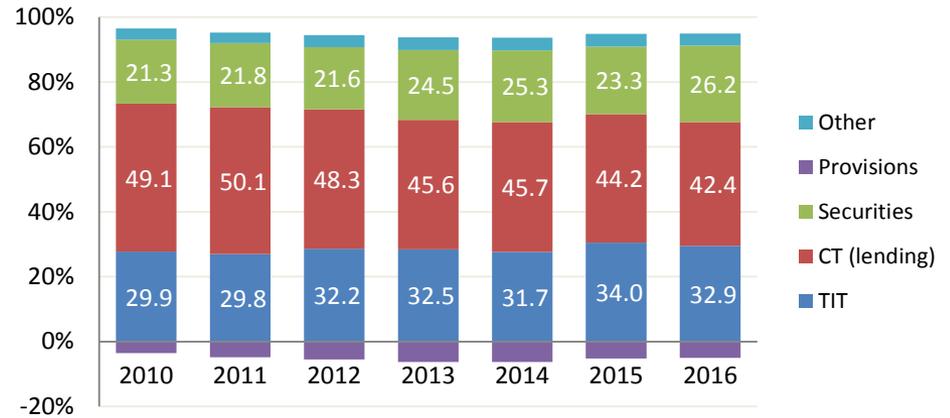
Banks: build up of leverage / search for yield

- leverage has been stable, weight of investment in Sec and Treasury & Interbank Transactions (TIT) have increased; duration of (risk free) Gov't securities portfolio has also increased.

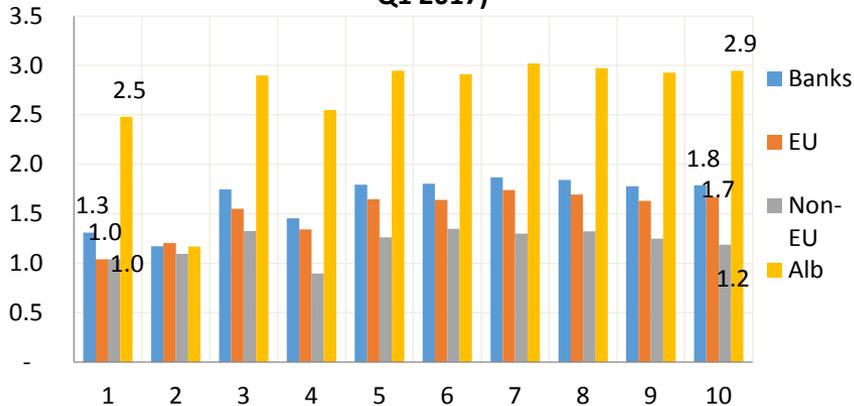
1 - Banks: Leverage (in times)



2 - Composition of bank assets (%)

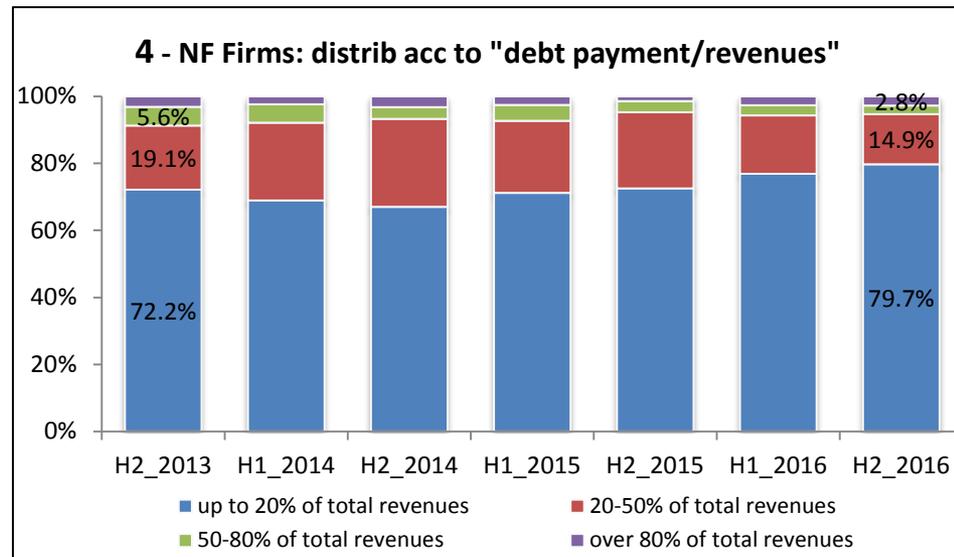
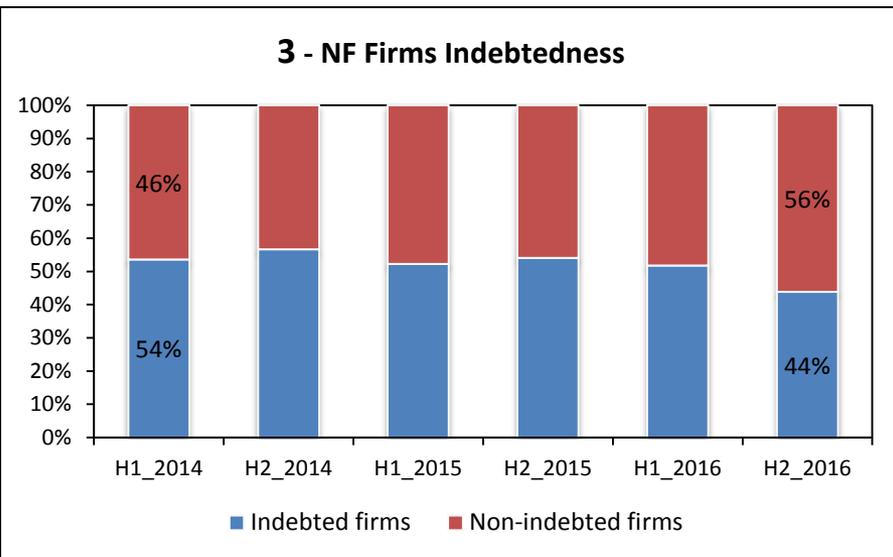
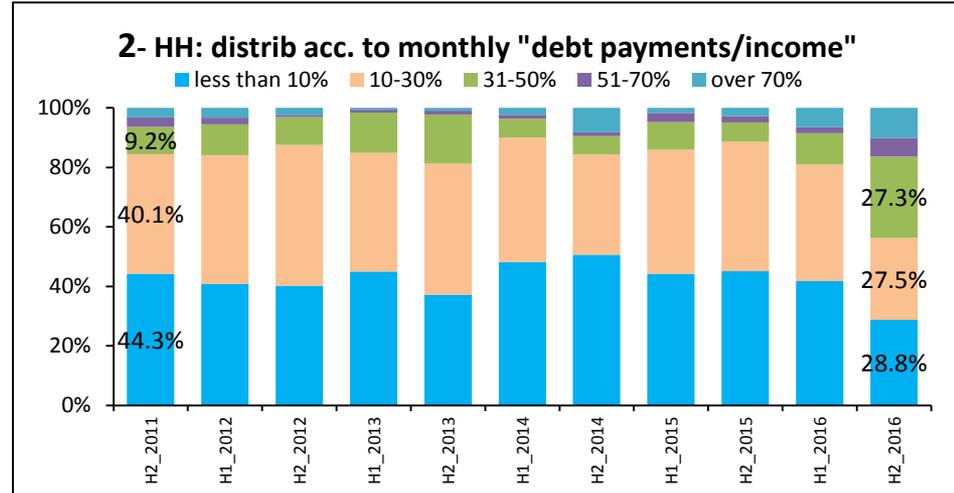
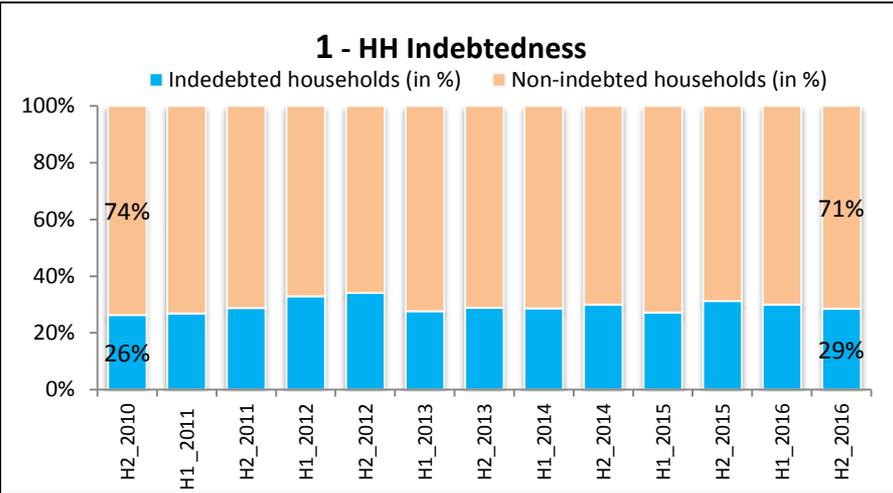


3 - Gov't securities portfolio: duration (yrs, end 2014-Q1 2017)



HH and NF Firms: Build-up of leverage / search for yield

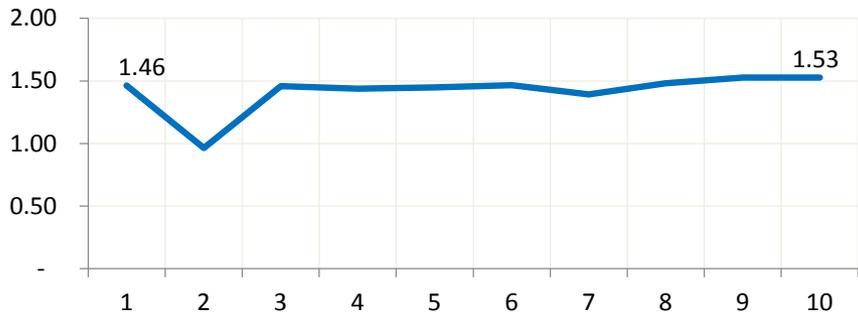
- the weight of Families that has a debt to pay is stable, debt affordability remains at good levels, although debt payments to incomes is somewhat increasing;
- the weight of NF-Firms in debt, is not showing an increase, and the affordability of the debt remains stable.



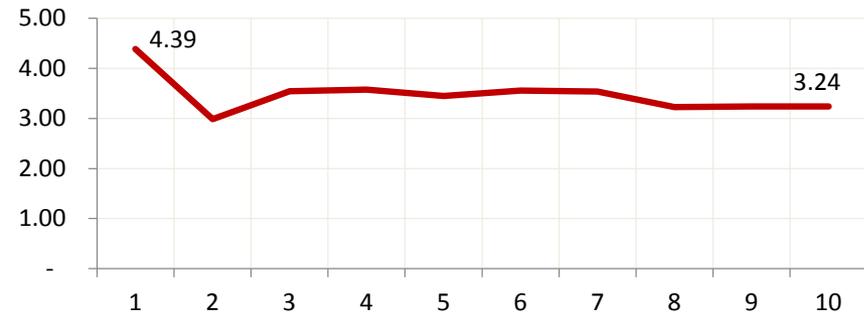
HH and NF Firms: Build-up of leverage /search for yield (cont.)

- there is an increase in bank lending to HH, which at the end of 2016 was 3.7%; for resident NF-firms this figure was slightly negative;
- but there hasn't been any concerning shift in duration of investment from both HH and NF-Firms;
- HH have been active in increasing the duration of bank deposits and in shifting toward Gov't sec and investment funds

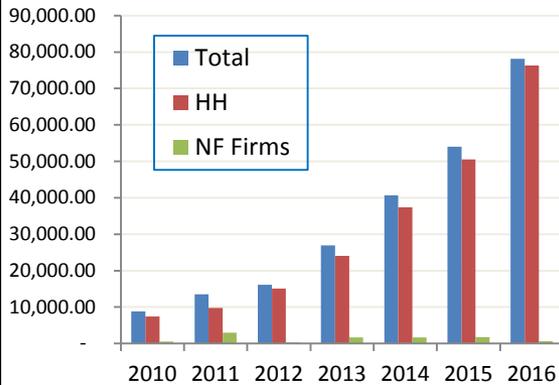
1 - HH: Gov't sec portfolio - duration (yrs, end 2015 - Q1 2017)



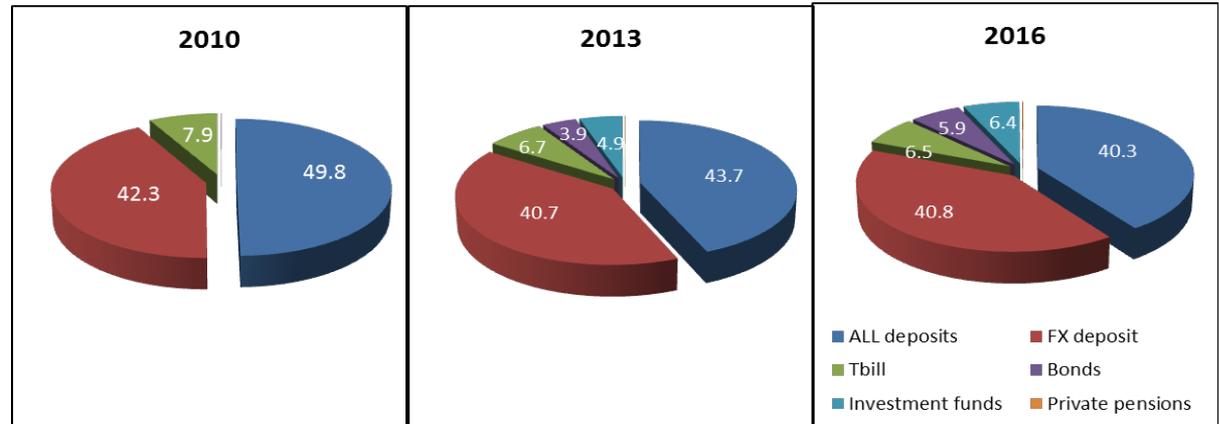
2 - NF Firms: Gov't sec portfolio - duration (yrs, end of 2015 - Q1 2017)



3 - TD over 2 years (mio Lek)



4 - HH investment portfolio:

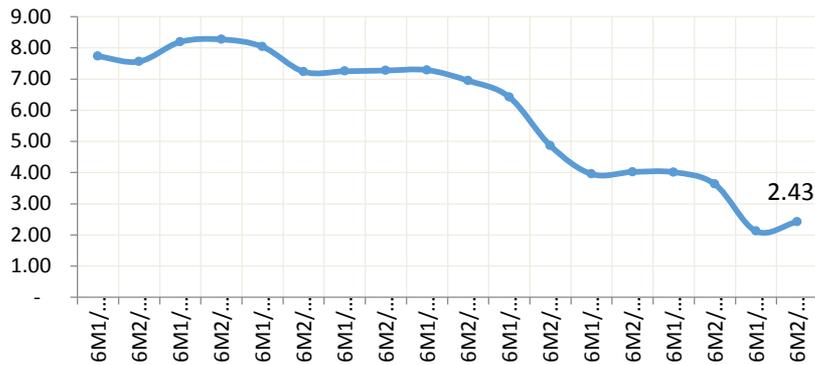


Asset prices: trends

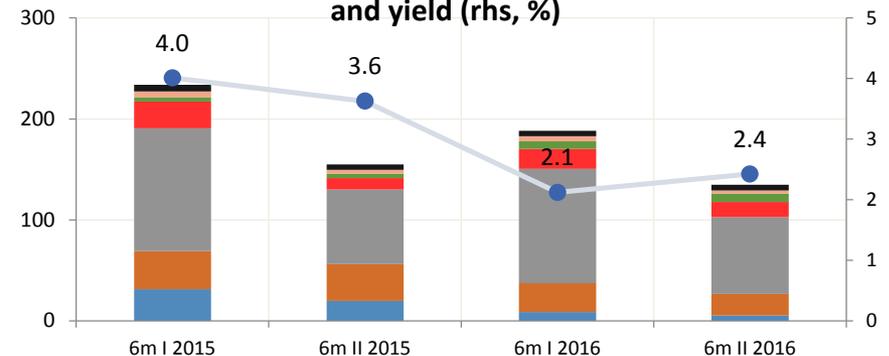
- there is a decline in yields/rise in prices of Gov't debt;
- but in addition to lower interest rates, it also reflects the lower borrowing demand from the Gov't.
- the real estate prices do not show a clear trend.

Financial assets

1 - Average yield on Gov't debt (%)

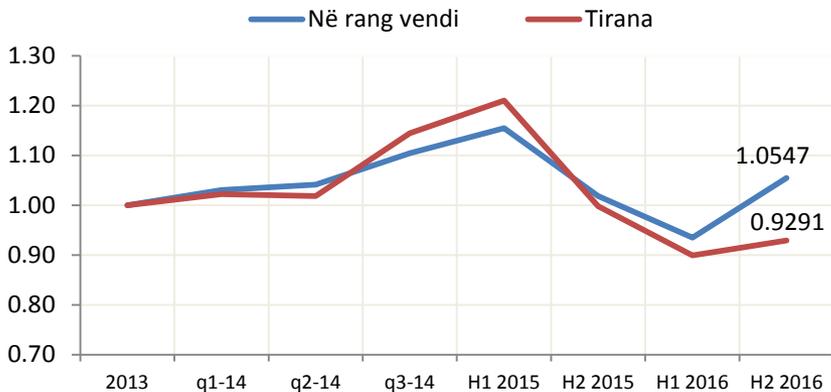


2 - Volume of issuance of Gov't debt (lhs, bio Lek), and yield (rhs, %)

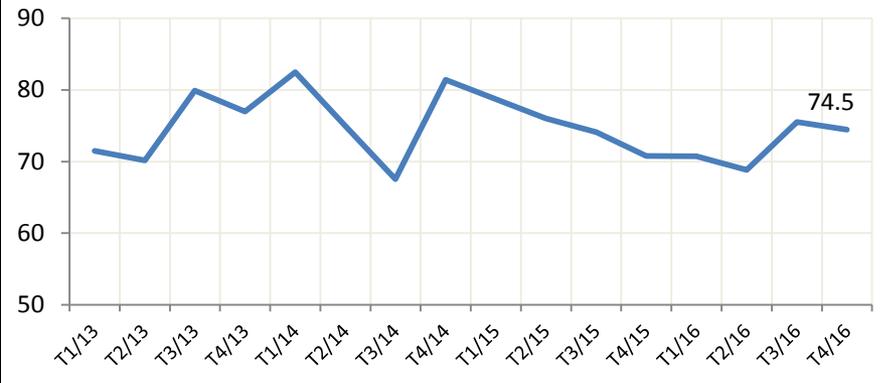


Real assets

3 - Real estate prices (2013=1)

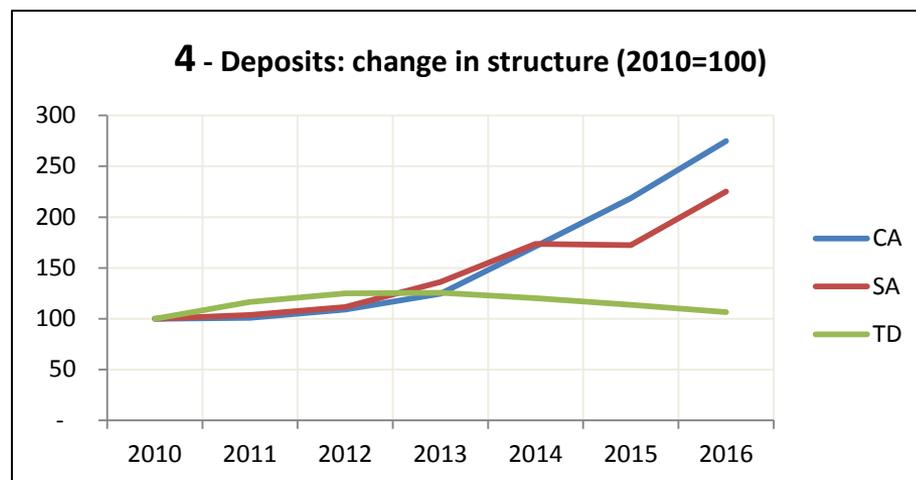
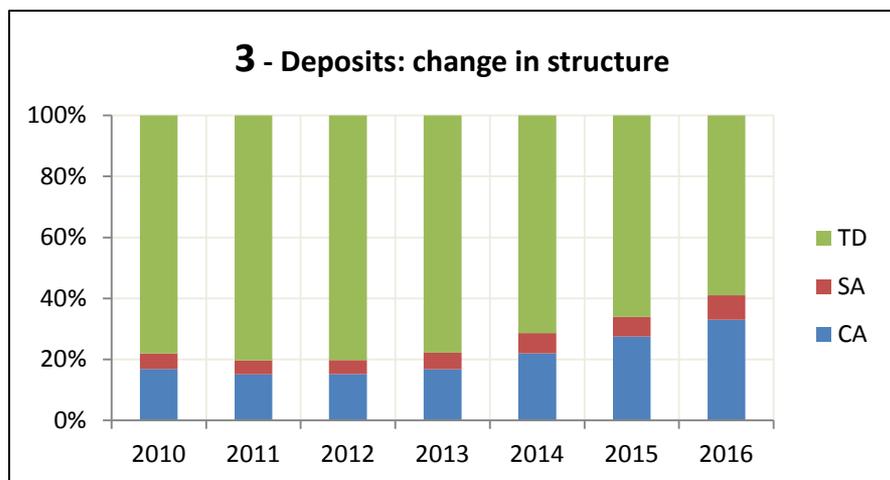
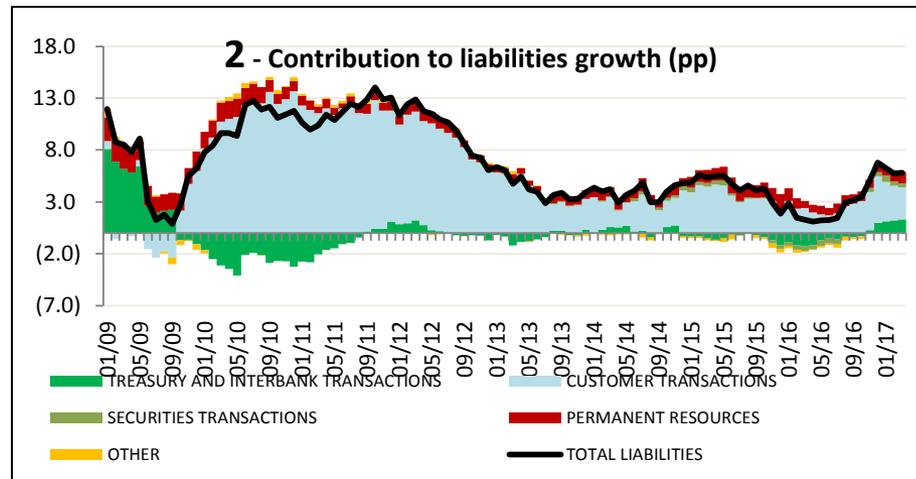
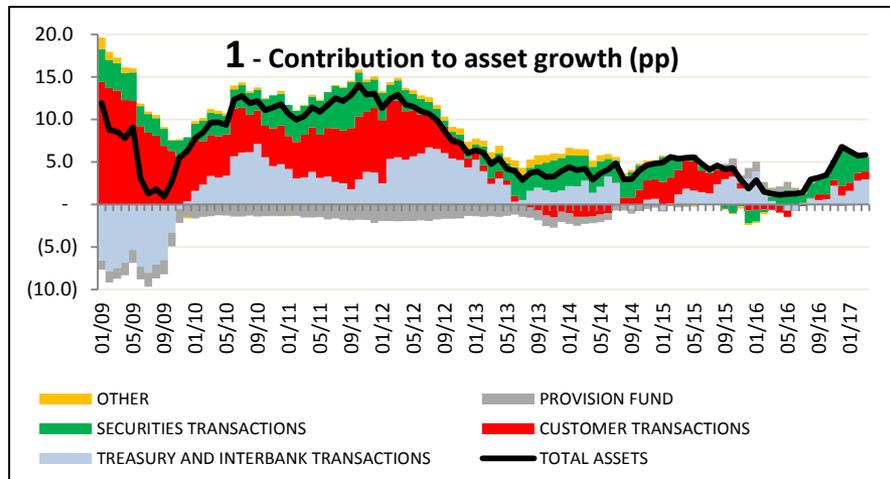


4 - Real Estate prices –Tirana (2005 =100)



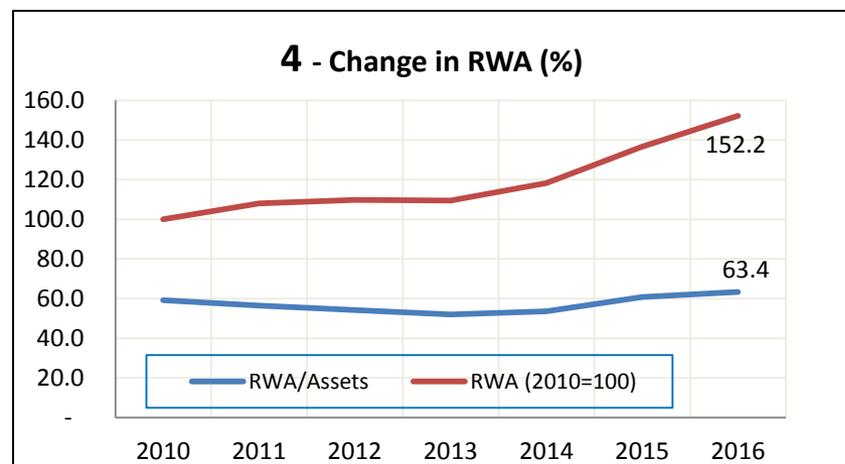
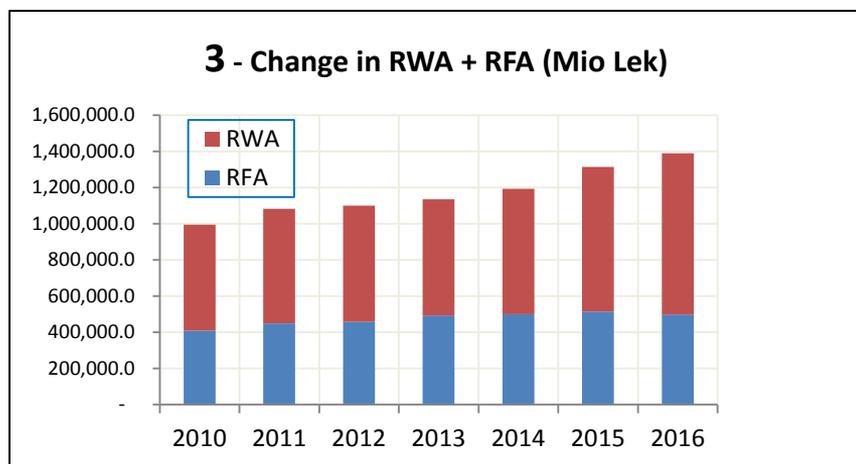
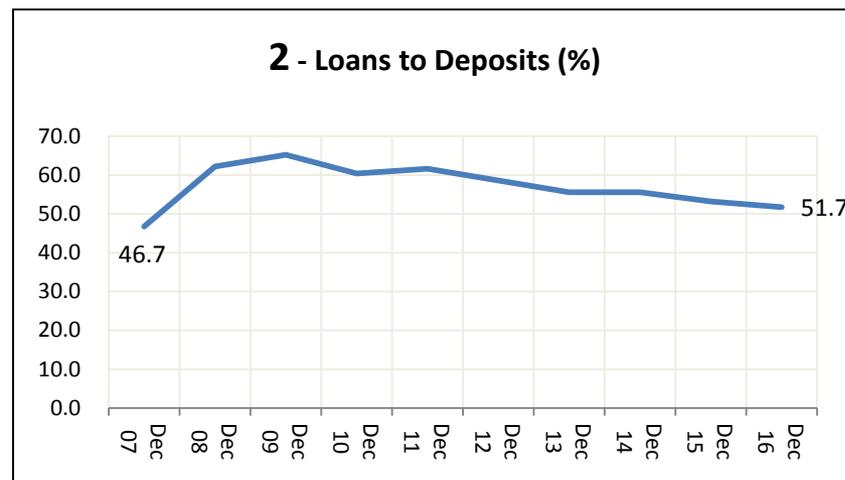
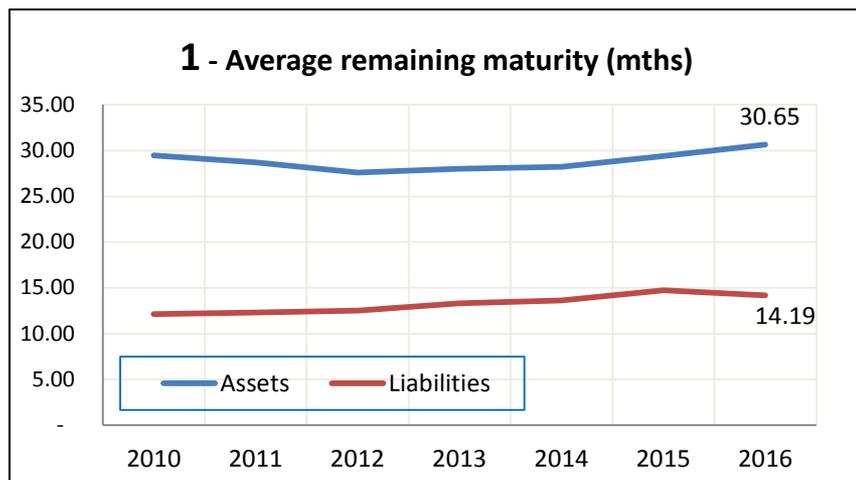
Banks: maturity transformation

- growth in deposits, has gone mostly to investments in securities and treasury operations, especially with nonresidents;
- changes in deposit structure are showing a decline in the weight of TD, and a rise in weights of CA and SA;
- within the TD, there is a trend to go longer than 2 years in maturity;
- financial intermediation to PS should become more difficult as the funding becomes shorter in maturity



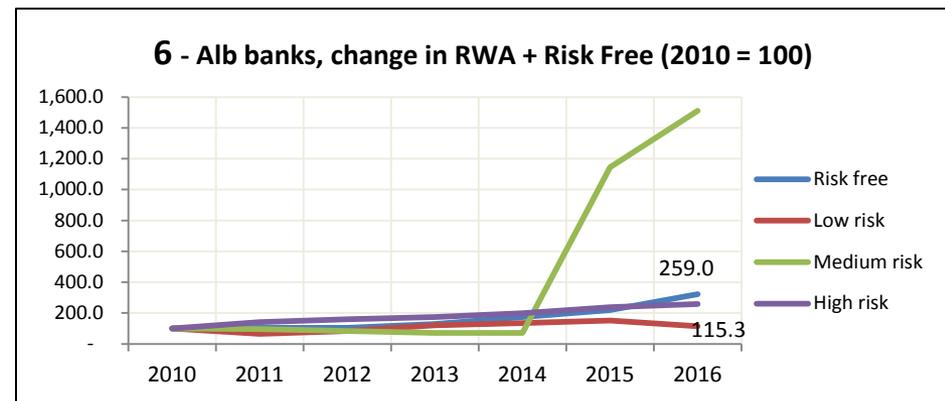
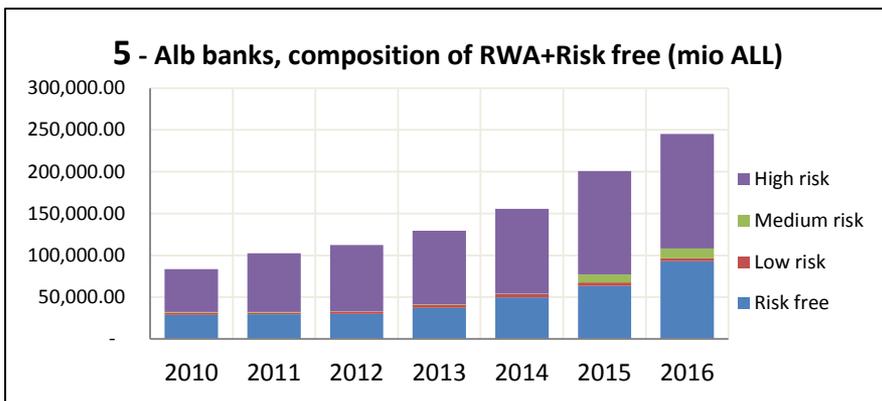
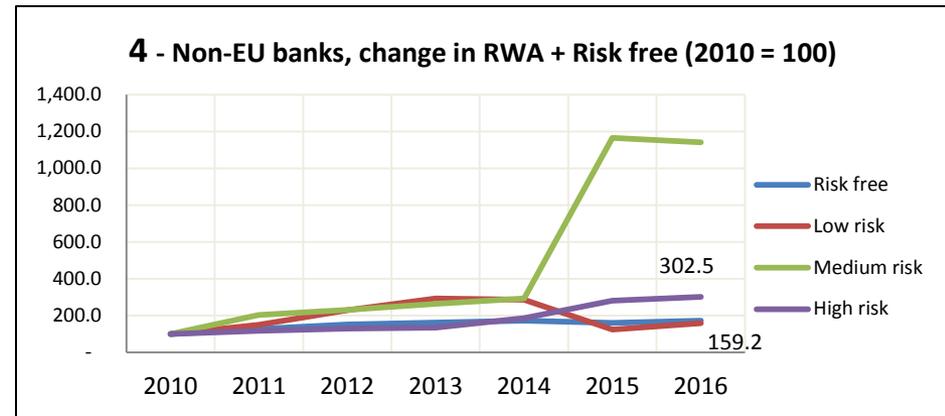
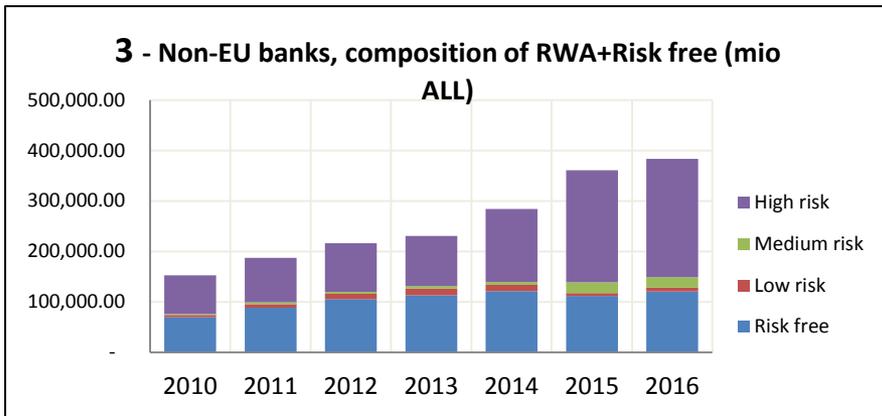
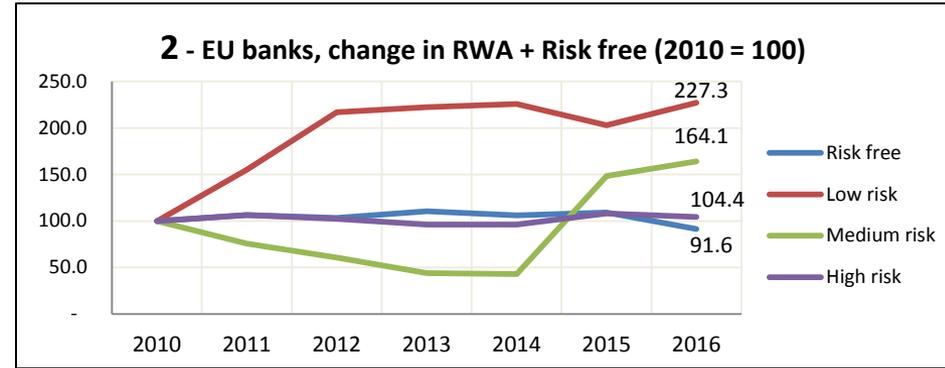
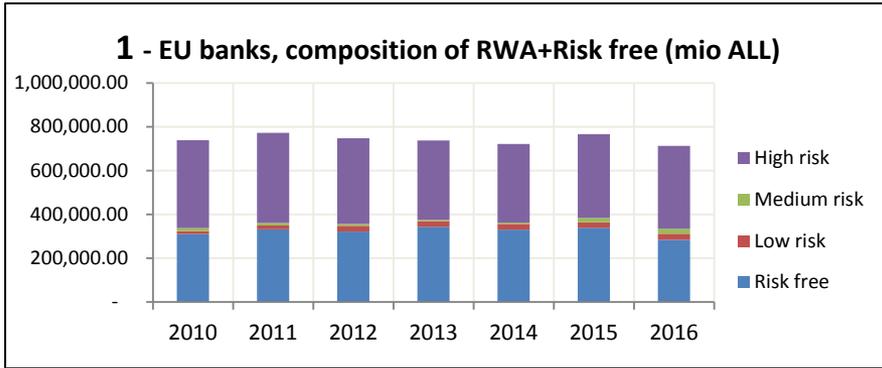
Banks: maturity transformation

- banks have been able to keep stable average maturity for assets and liabilities;
- overall credit remains subdued, and credit to deposit ratio remains low;
- the rise in RWA is gradual and also reflects regulatory measures;
- although the investments in RFA remain contained, their duration (gov't) should be rising;



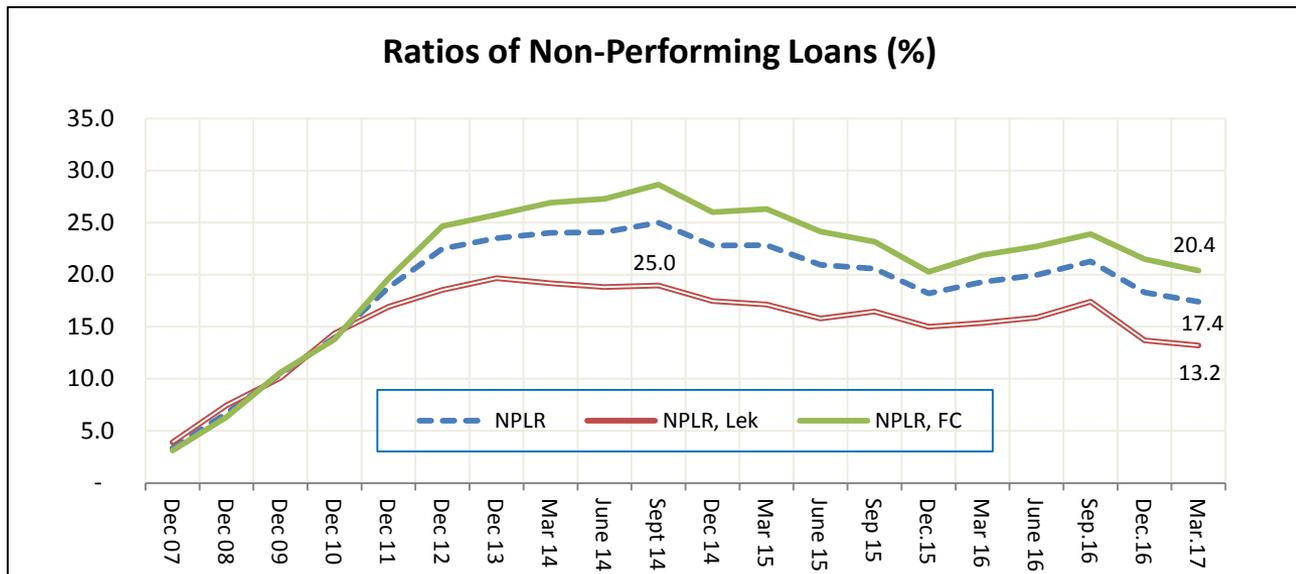
Banks: RWA

- EU banks more passive, both in terms of investment in RWA and RFA; - Non-EU banks, show a rise in RWA but stable investments in RFA; - Alb banks, show a rise in RWA and in RFA



Banks: quality of assets: Have banks used the low interest rate environment to improve on their loan quality?

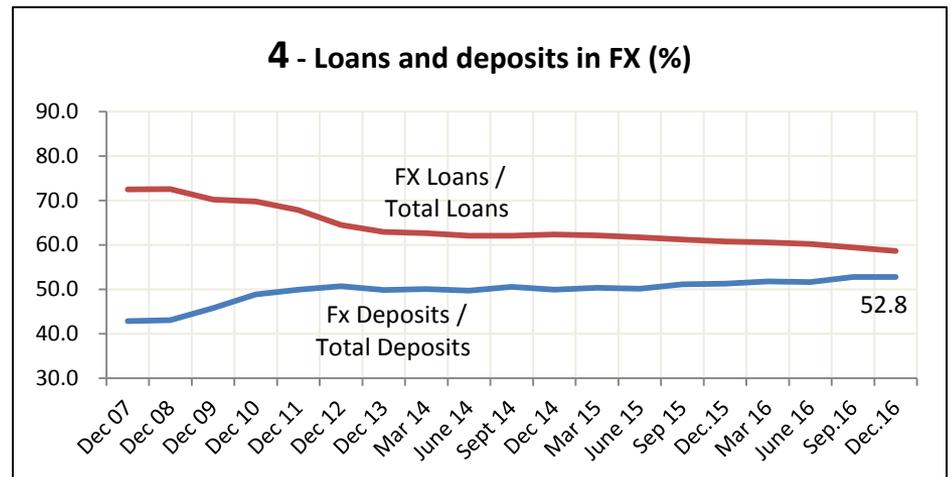
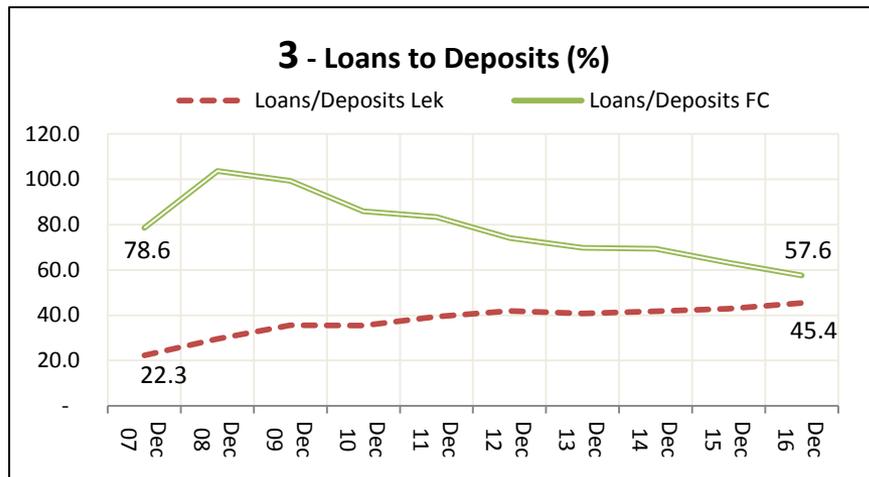
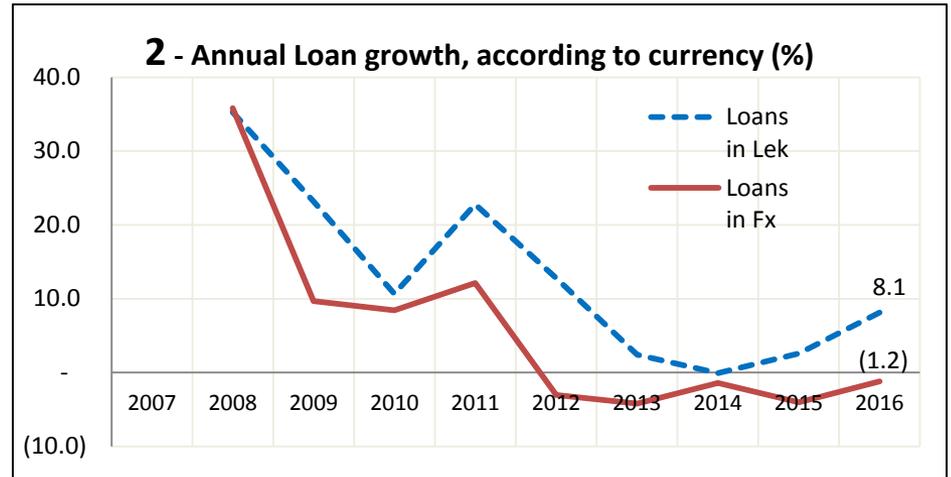
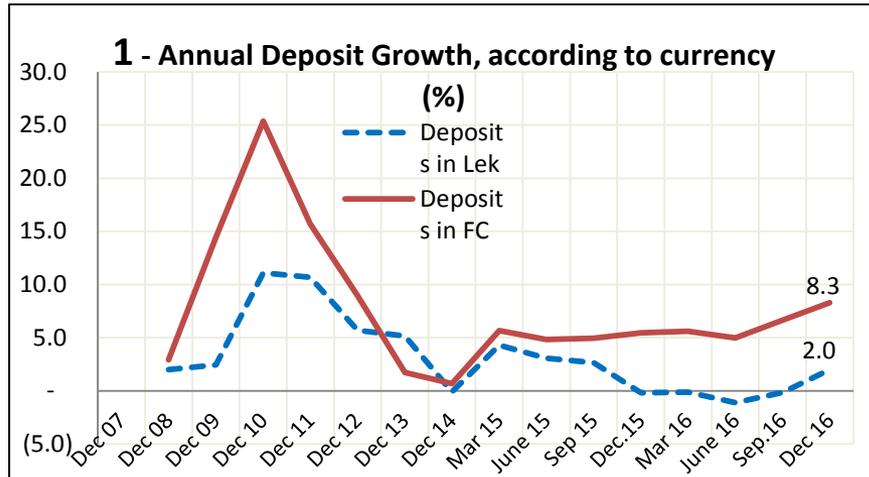
- Low interest rates, in combination with appropriate restructuring of NPLs, should help to effectively improve the quality of loan portfolio and resolve NPLs;
- The NPLR, has declined from a peak of 25% in Sept.2014, to around 17.4% in March 2017;



- But the write-off of approximately 40 billion All in “lost” loans over the last 2 years, has given the main impact in improvement;

Banks: changes in currency composition of the balance sheet

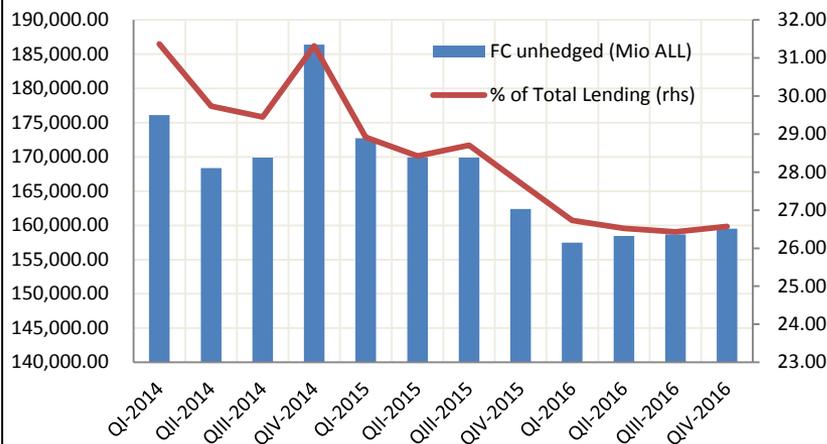
- Lower interest rates for Lek lending, and lower spreads between Lek and FX interest rates for deposits, have contributed to higher growth in Lek Loans and Fx deposits;
- higher FX deposits, while FX lending has declined, has gone mostly for investments abroad;
- nevertheless, higher Fx deposits represents higher liquidity risk and possible source of Fx lending revival when conditions are more favourable;



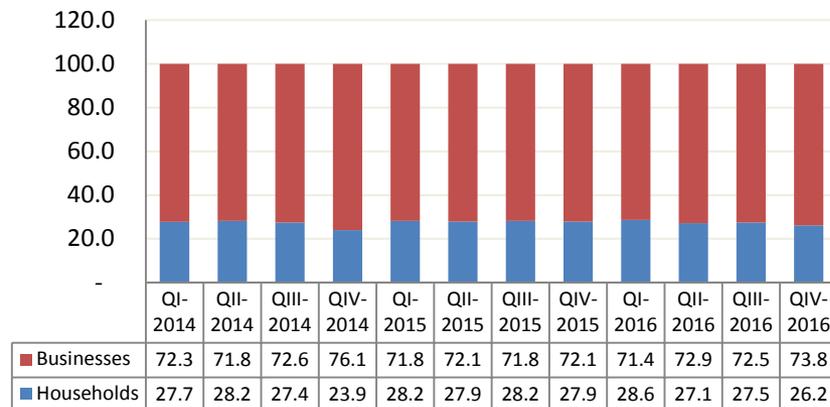
Banks: Un-hedged FX credit

- this portfolio has been declining until 2015, and then stabilizing in 2016;
- $\frac{3}{4}$ of this portfolio is held by Firms.

1 – Un-hedged FC credit



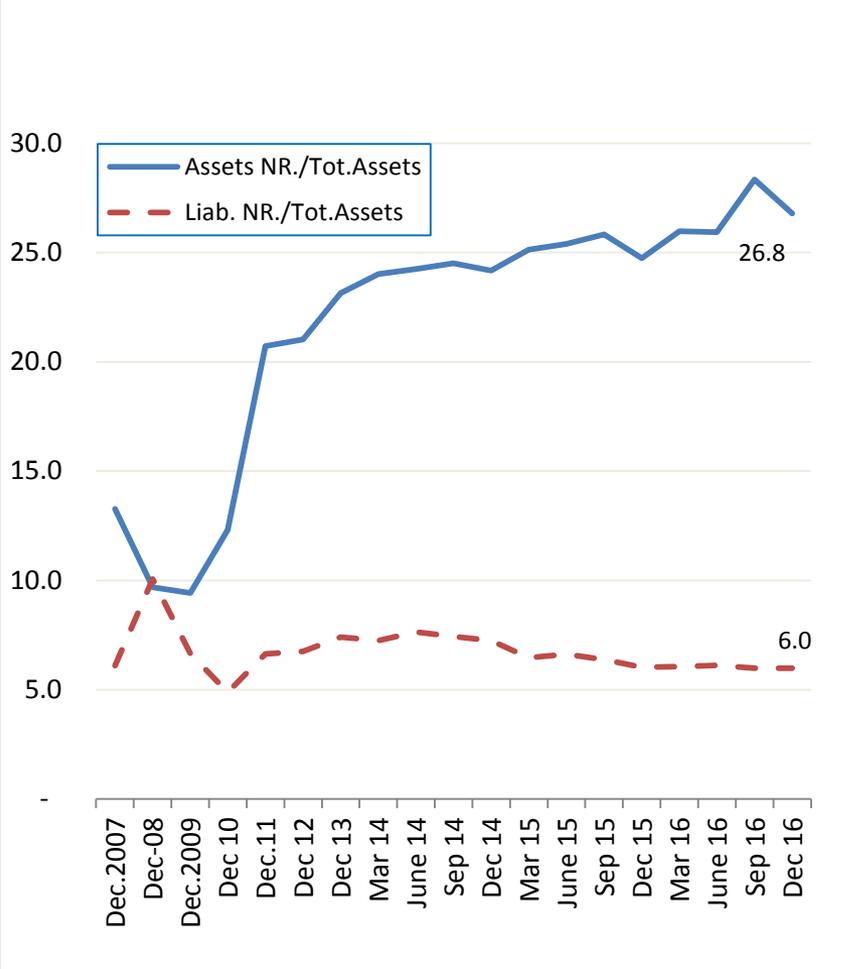
2 – Composition of FC Un-hedged Loans (%)



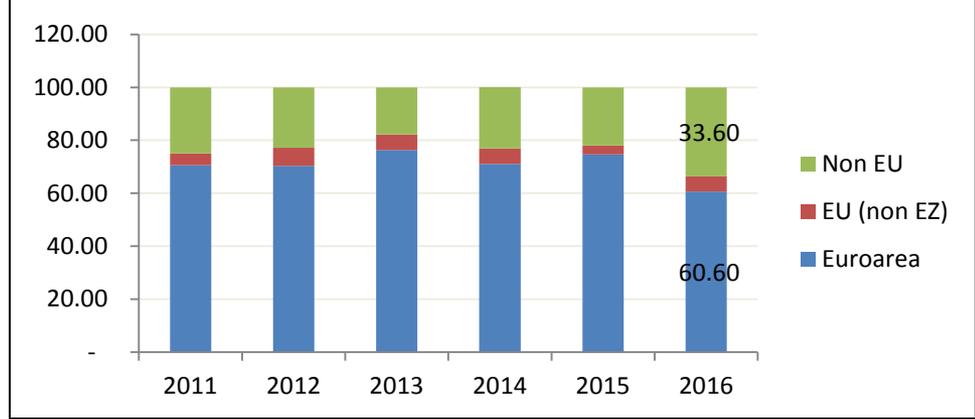
Banks: Transactions with non-residents

- in Placements, there has been an increase toward investment with FI from non-EU countries;
- in Securities, the weight of investments in Euro have increased while that in USD has decreased
- Credit to nonresidents has increased to 11.3% of Total Loans;

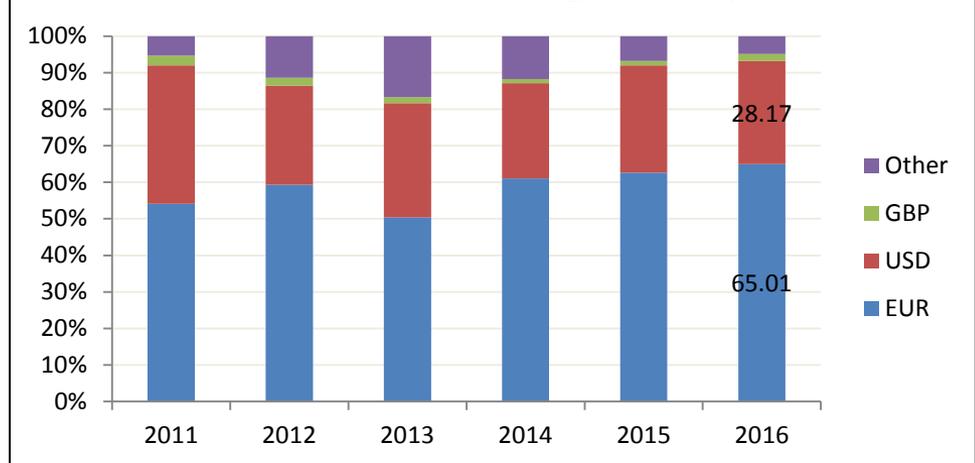
Position toward Nonresidents (%)



Geographical distribution of Placements with NR (%)



Securities with NR, according to currency (%)



Structural changes

- In banks, so far:
 - there has not been a noticeable shift toward more fee-generating services (NNII remains stable); although there is more interest to provide activities related with securities trading;
 - pressure on profitability has been felt but has been resisted well; banks continue with efforts to streamline their operations, make them more efficient;

But if pressure on profitability could increase. With this, and given also international developments on EU banking groups, the likelihood of divestments or consolidation will also increase.

Hence banks must simulate for such scenarios and try to adjust.

- In asset prices, there is increased demand for longer term Gov't securities, and this has coincided with less appetite for borrowing from the Gov't. Real Estate prices do not show as yet a clear trend.
- In non-banks/markets – there are signs toward a preference for a more-market based financing, as
 - there has been already in the last 18 months, interest and actions from NF-Firms to issue short term debt;
 - there is interest to establish a private stock exchange;
- All above, provide opportunities but also challenges for the financial industry and the regulators.

Conclusion

- Interest rates have been low for some years: “low for long” or “back to normal” matters for the financial system and the economic agents;
- So far, under low interest rates:
 - the Albanian banking sector has managed to mostly offset lower NII with lower Costs; but NII could come lower and banks will have to maintain sufficient levels of operation;
 - The Liabilities of banks are changing in terms of Maturity structure and Currency; this is having some impact on its ability to intermediate and level of euroization; there is a preference for banks to invest in securities and increase duration, as quality of NPLs remains a challenge;
 - HH and NF-Firms do not yet show a concerning appetite for leverage, but are looking for higher returns;
 - Asset prices are relatively stable;
 - In terms of structural changes, banks are still focused on their core activity, while there are tentative signs of NF Firms toward more market-based financing;
- The possible developments could prove challenging also for the regulators. Closer communication with the industry and market players, better information collection and sharing capabilities and an overall risk-focusing approach, should be helpful in timely preparation and effective policy adjustment.

Thank you!



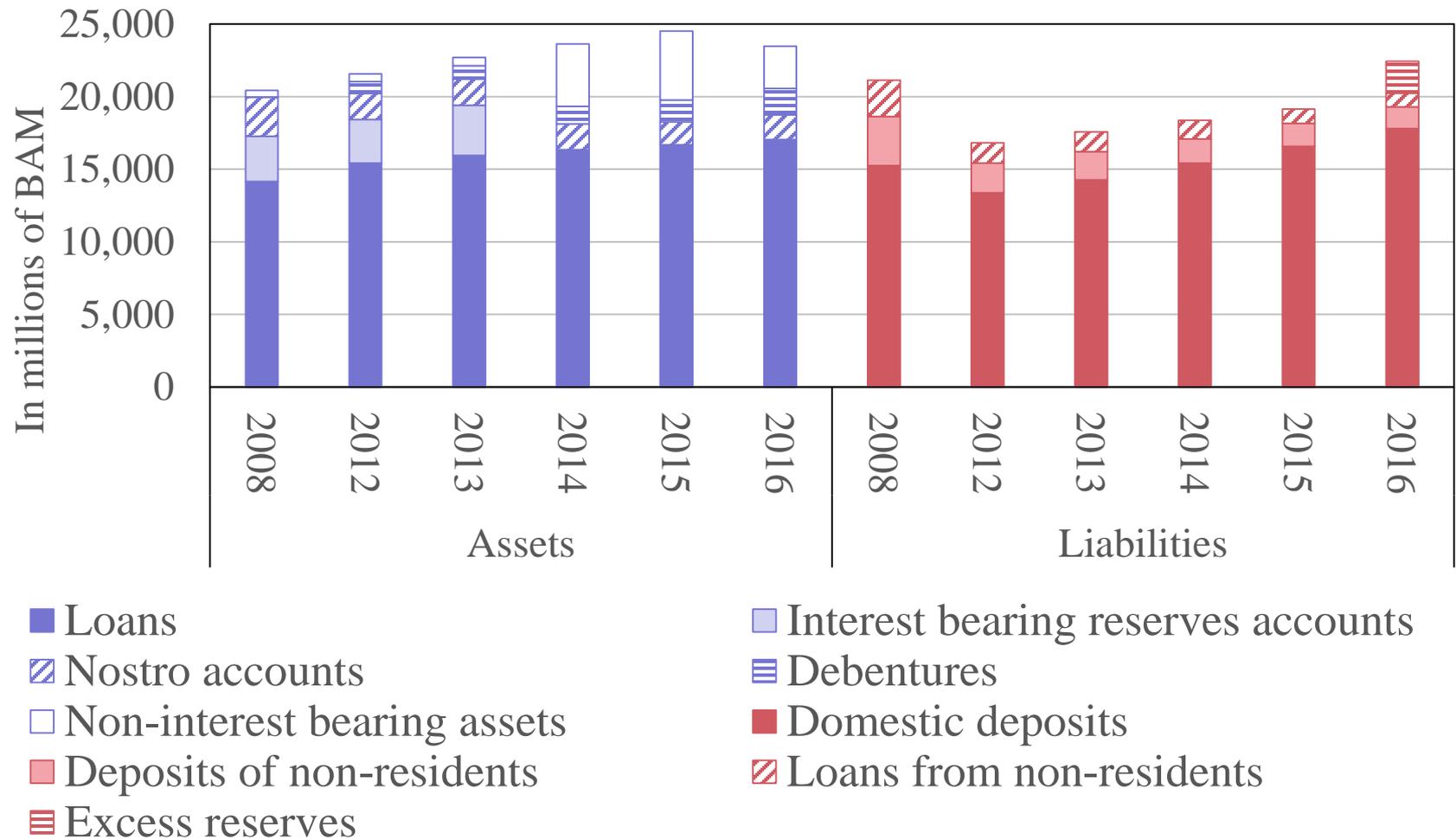
C B B H
Centralna banka Bosne i Hercegovine

What is obscured by aggregate data in the case of Bosnia and Herzegovina?

Belma Čolaković

The views and opinions expressed in this presentation are those of the author, and do not necessarily reflect the position of the CBBH.

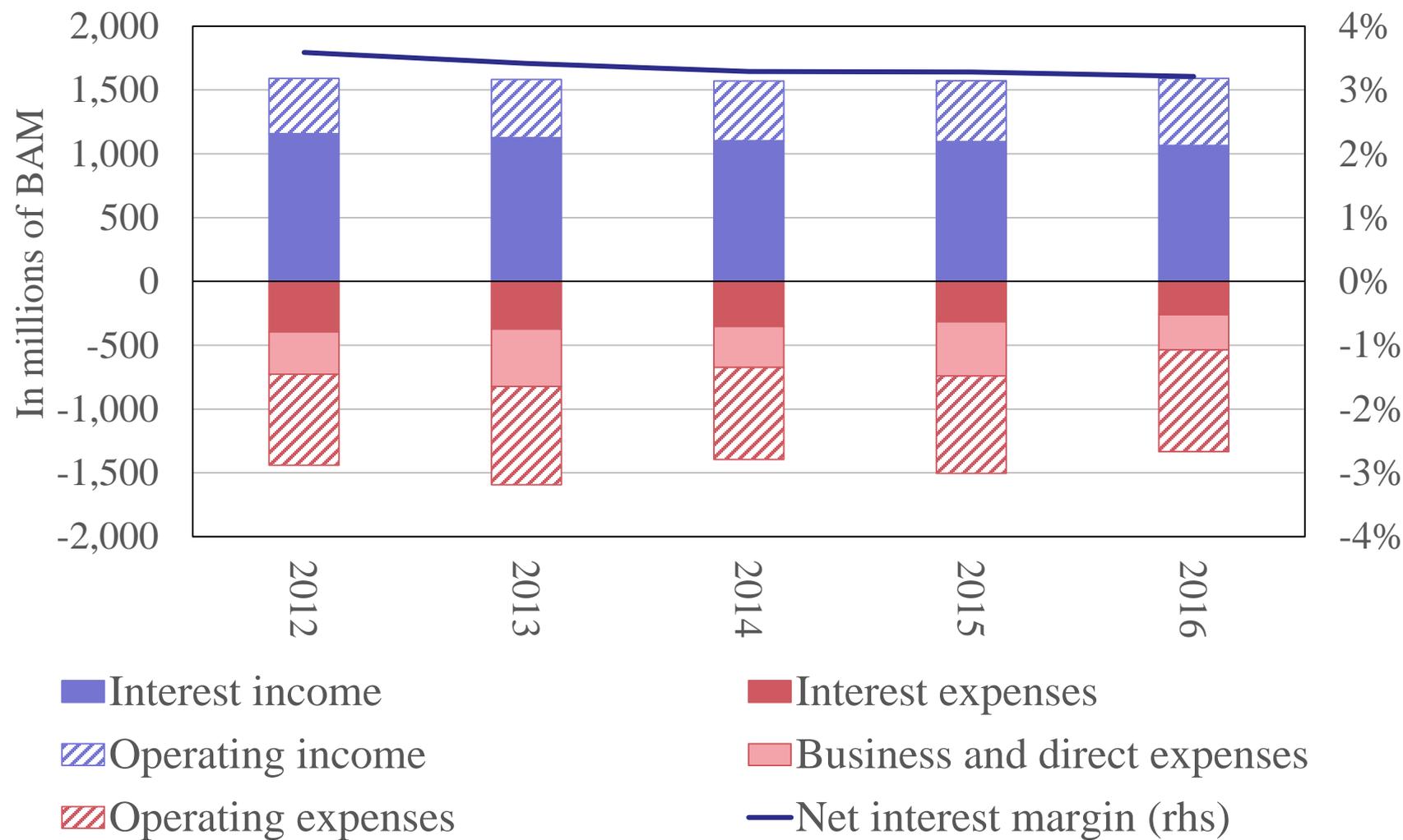
The determinants of net interest income in BH



Source: CBBH.

Notes: Depicted are financial assets and liabilities, net of capital. Non-interest bearing assets up to 2013 include cash in valuts; as of 2014 reserves accounts with the CBBH are included. As of 2016, non-interest bearing assets exclude excess reserves, as the negative remuneration rate on excess reserves has been introduced in mid 2016. For that reason these are presented on the liabilities side in 2016, although, technically, these are banks' assets.

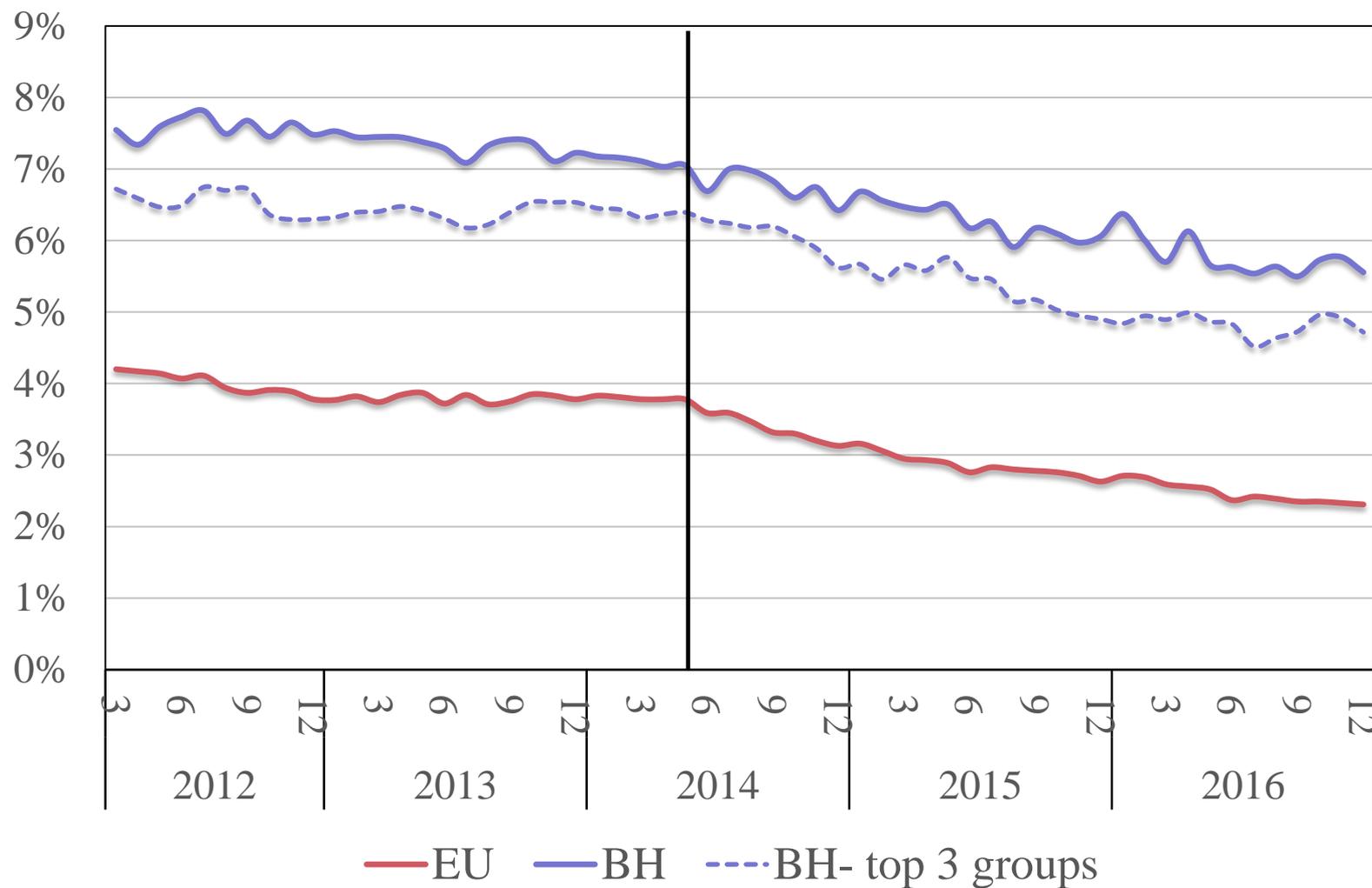
Profitability of BH banks



Source: Banking agencies, own calculations.

Notes: Net interest margin defined as end of year net interest income to total assets. For the purpose of illustration, the expenses are presented with a negative sign.

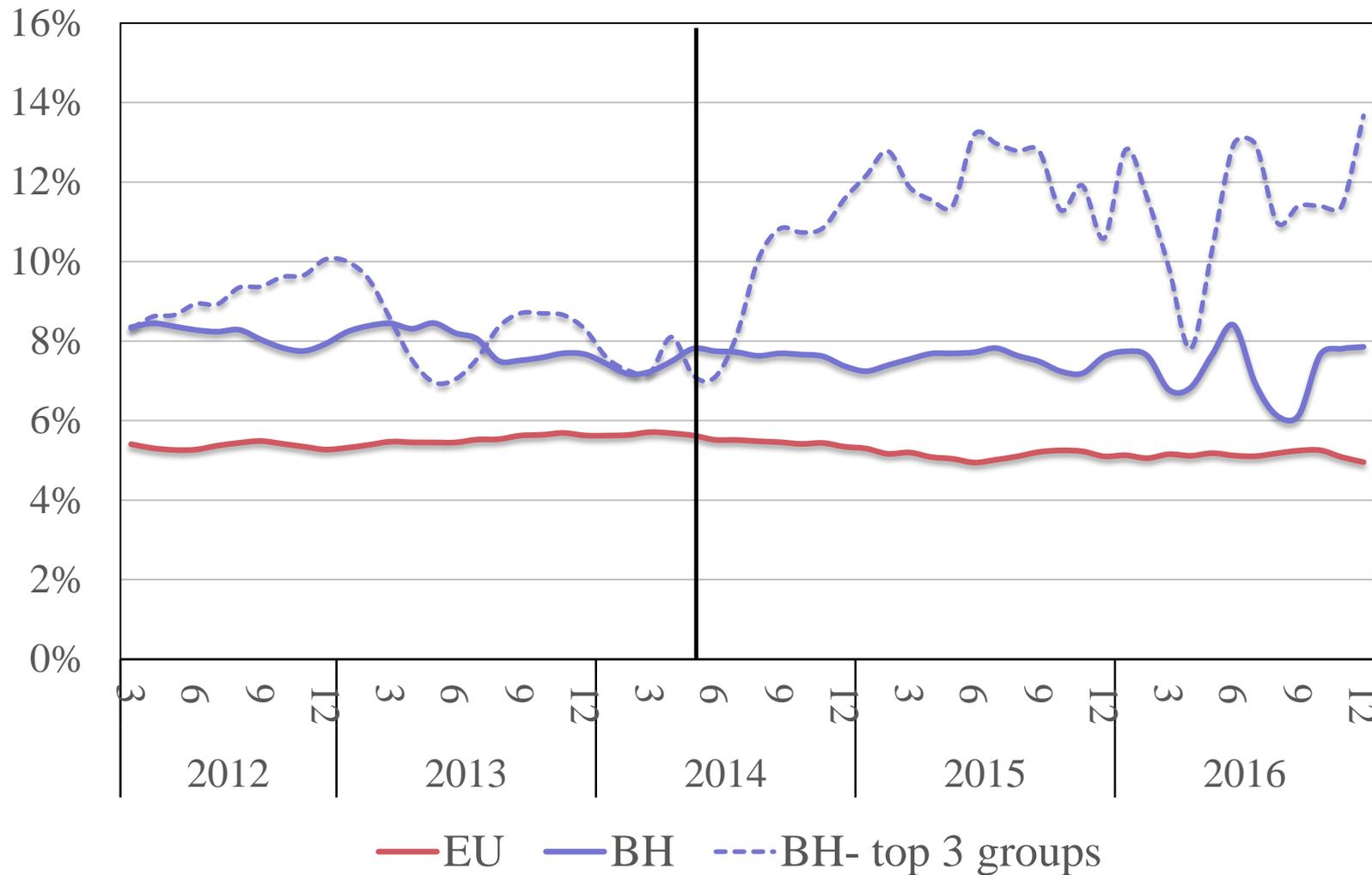
Interest rates on loans to non-financial companies



Source: CBBH, ECB, own calculations.

Series: Firms, loans up to and including 1 million EUR, up to 1 year, 3 months moving average.

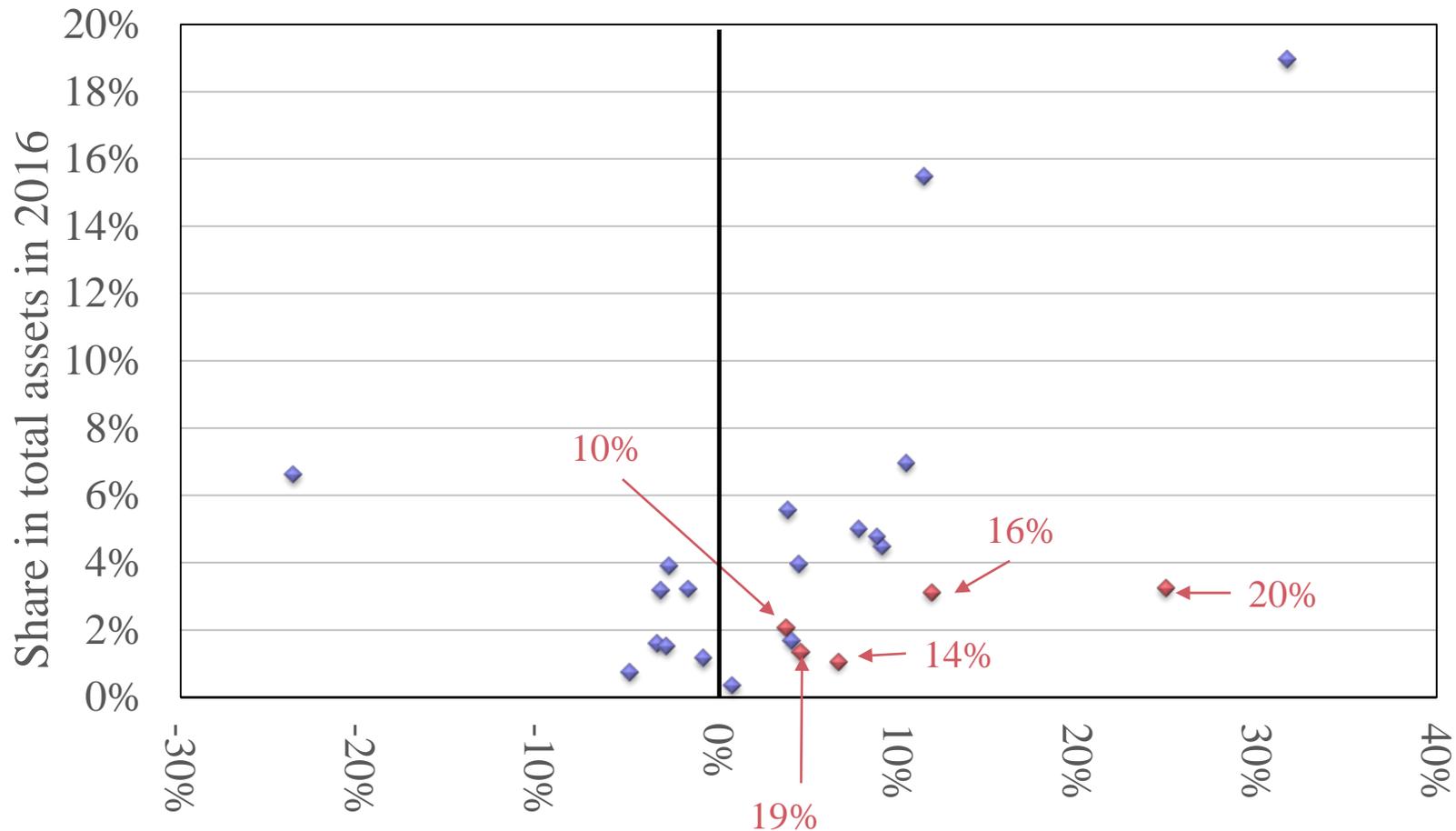
Interest rates on loans to households



Source: CBBH, ECB, own calculations.

Series: Households, General consumption loans with maturity up to 1 year, 3 months moving average.

Which banks extend loans?

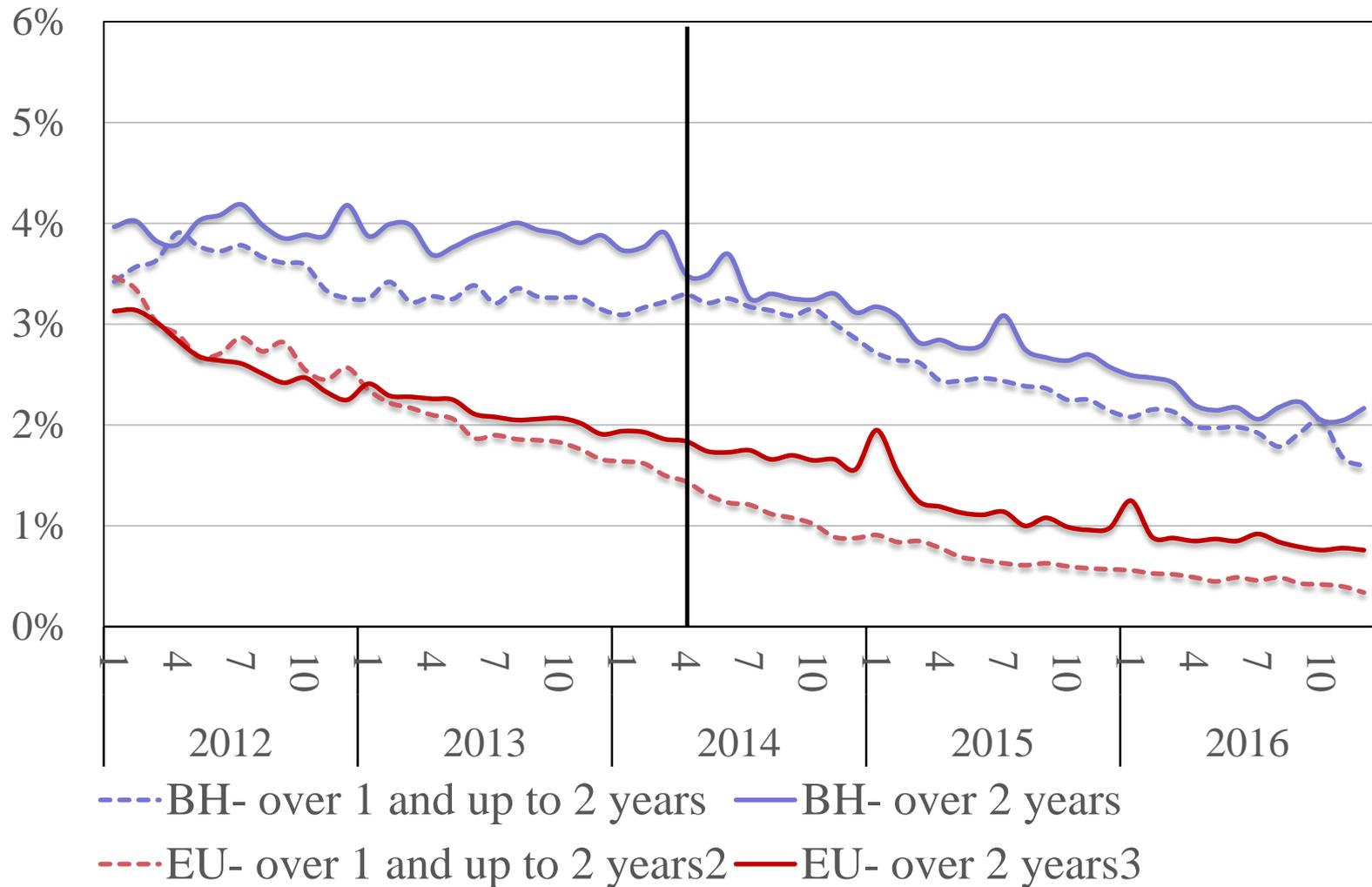


Contribution to credit growth in 2016 w/r to 2015

Source: CBBH, own calculations based on December figures.

Note: Figures in red indicate by how much bank's balance sheet had to expand in order for bank to experience reported annual credit growth.

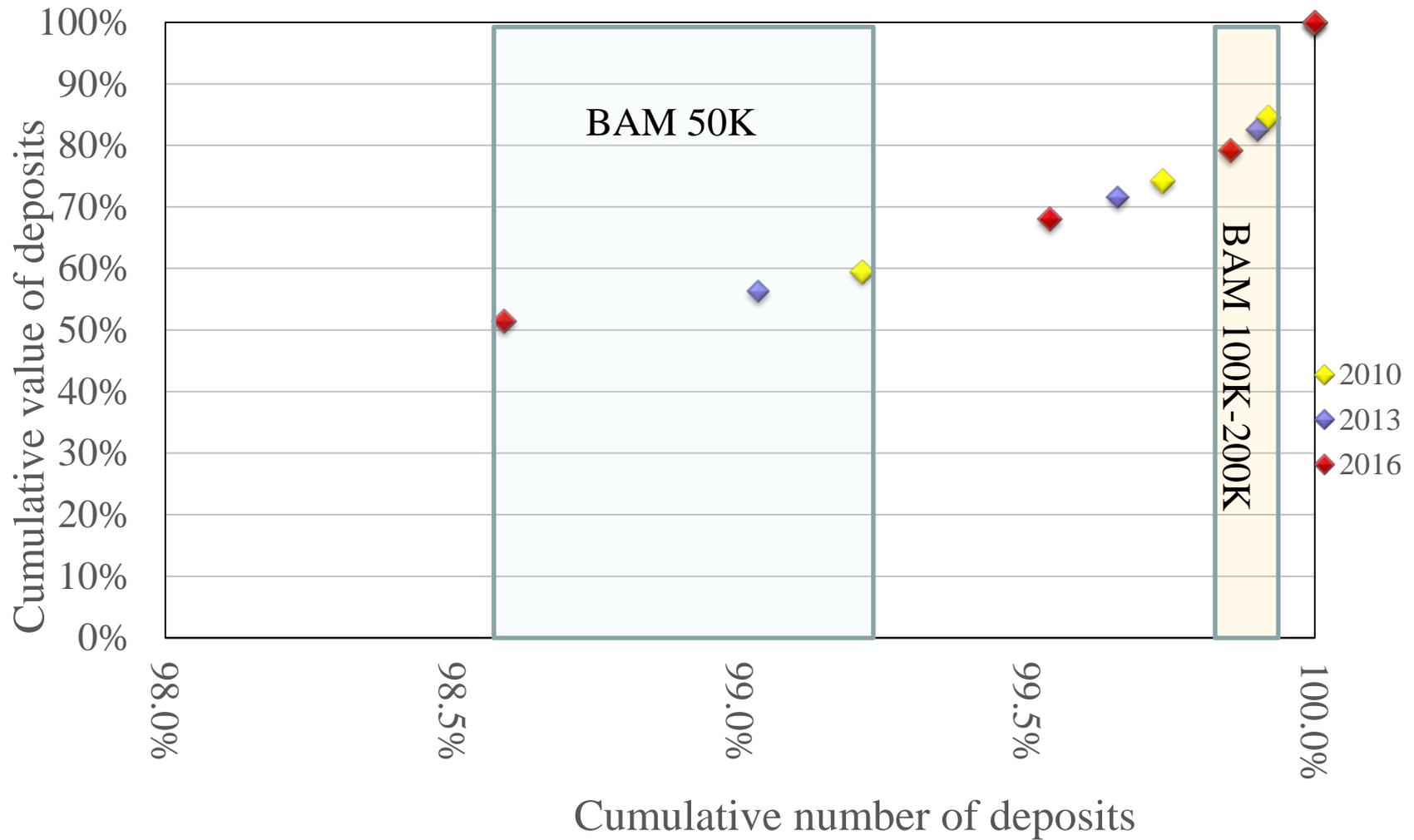
Interest rates on deposits of households



Source: CBBH, ECB, own calculations.

Note: New deposits.

Which households deposits are growing?



Thank you for your attention.

bcolakovic@cbbh.ba



FINANCIAL STABILITY UNDER UNILATERAL EUROIZATION: THE CASE OF KOSOVO

Dr. Arben Mustafa
Advisor to the Governor

Tirana
May 4th, 2017

Monetary Policy and Financial Stability

- Central banks may pursue their financial stability objective through two policy tools:
 - Monetary policy, mainly *via* short-term interest rates on loans to banks
 - Macroprudential policy
- The use of monetary policy for financial stability purposes has increased after the crisis.
 - Some Central Banks have incorporated financial stability in their main objectives.

The use of Monetary Policy for Financial Stability Purposes

- Central Banks can “*lean against the wind*” by setting policy interest rates at a higher level than what is required for stabilizing inflation or output.
 - Higher borrowing costs are expected to push households and firms to reduce leverage.
 - Tighter monetary conditions are expected to induce the reduction of leverage also in the banking sector (Dell’Ariccia, Laeven and Marquez, 2014).
- Central Banks have the ability to increase the money supply and provide funds to distressed banks through the LOLR function.

Limitations of the Monetary Policy to pursue the Financial Stability Objective (1)

- Higher interest rates may reduce the aggregate demand and increase the interest rate burden when liabilities have variable rates and short-term maturities.
- Central Banks may face trade-offs between “leaning against the wind” to stabilize financial risks and stabilizing inflation or output.
 - Leaning against the wind involves paying a short-term cost—lower output or higher unemployment—in exchange for a medium-term benefit in the form of lower expected costs from a financial crisis (IMF Staff Report, 2015).
 - Leaning against the wind might undermine the credibility of the central bank, and the effectiveness of monetary policy, including a de-anchoring of inflation expectations.

Limitations of the Monetary Policy to pursue the Financial Stability Objective (2)

- The policy interest rate set by the central bank is not the only interest rate relevant for price stability and financial stability (Billi and Vredin, 2014).
- In countries with very high shares of foreign currency deposits, the ability of the Central Bank to use the LOLR function is limited to the amount of international reserves available and the ability to increase them by borrowing.
- Liquidity policies by the central bank may induce the moral hazard by reducing the incentive for banks to recapitalize and restructure.

Unilateral Euroization and Financial Stability in Kosovo (1)

- The use of euro has strengthened macroeconomic stability, leading to low and stable inflation.
- Exchange rate risk has been minimized.
 - Over 95 percent of the balance sheet of the banking sector denominated in euro
- The confidence of banks on the economy and the confidence of depositors on the banks has strengthened.

Unilateral Euroization and Financial Stability in Kosovo (2)

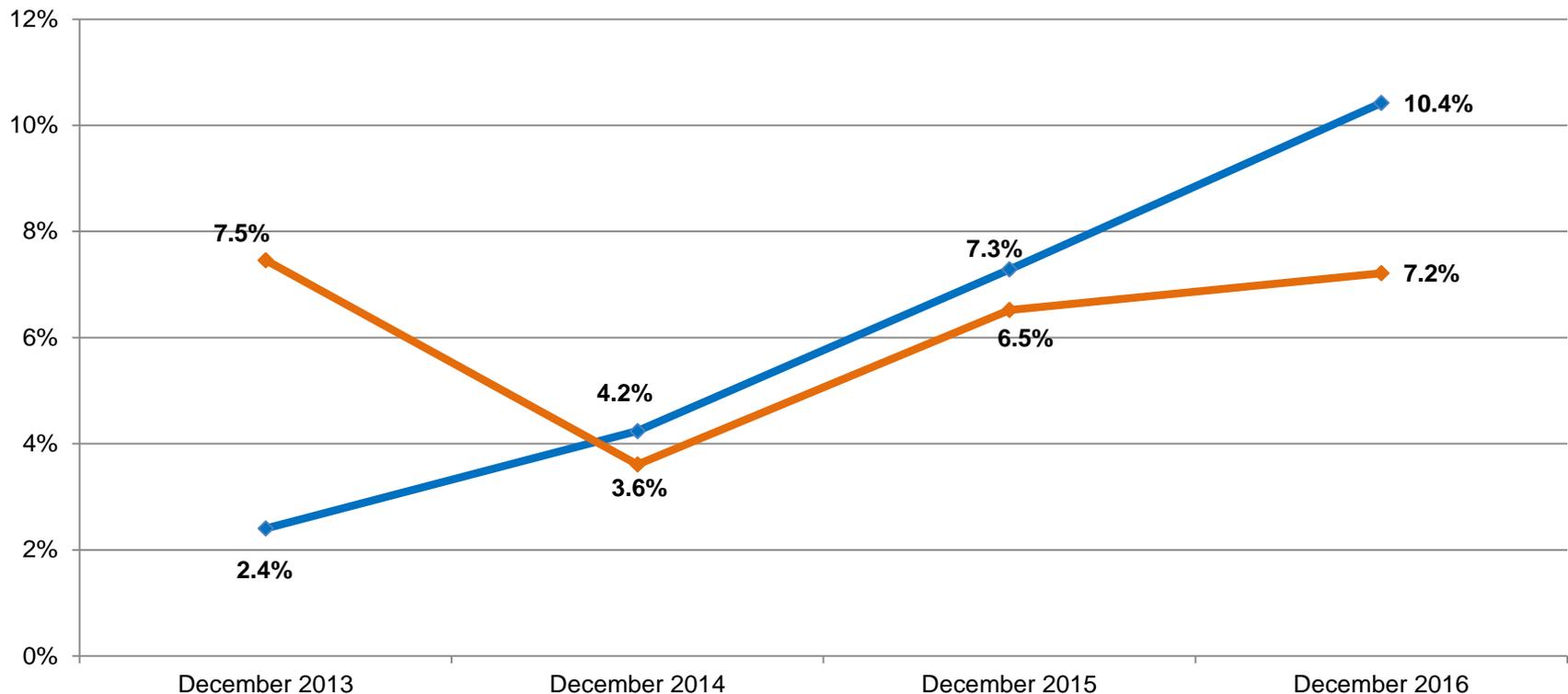
- The Central Bank of the Republic of Kosovo is able to have Financial Stability objective as its main goal.
 - Focused on the development of functions relevant to financial stability.
- The ability of the CBK to exercise the LOLR function is limited, but to some degree is compensated by the Emergency Liquidity Assistance (ELA) scheme.
 - In addition, 90 percent of the banking sector is foreign owned, implying possibility of liquidity flows from the parent banks for most of the banking sector.
 - When it comes to recapitalization needs, then it is rather an issue for the government than for the central bank and the lack or the presence of monetary policy may not be highly relevant.

Unilateral Euroization and Financial Stability in Kosovo (3)

- Limited space for LOLR has led to a more conservative behaviour by the Central Bank and more disciplined behaviour by the banks.
- The Central Bank has developed a Macroprudential Framework, which to some extent is expected to fulfill the potential gap created from the lack of monetary policy.
- The macroprudential policy has the advantage of being able to target the risks closer to their source, compared to the monetary policy which is less able to deal with specific risks.

How is Kosovo performing in terms of financial stability?

- Robust credit growth to the private sector financed by domestically collected deposits.

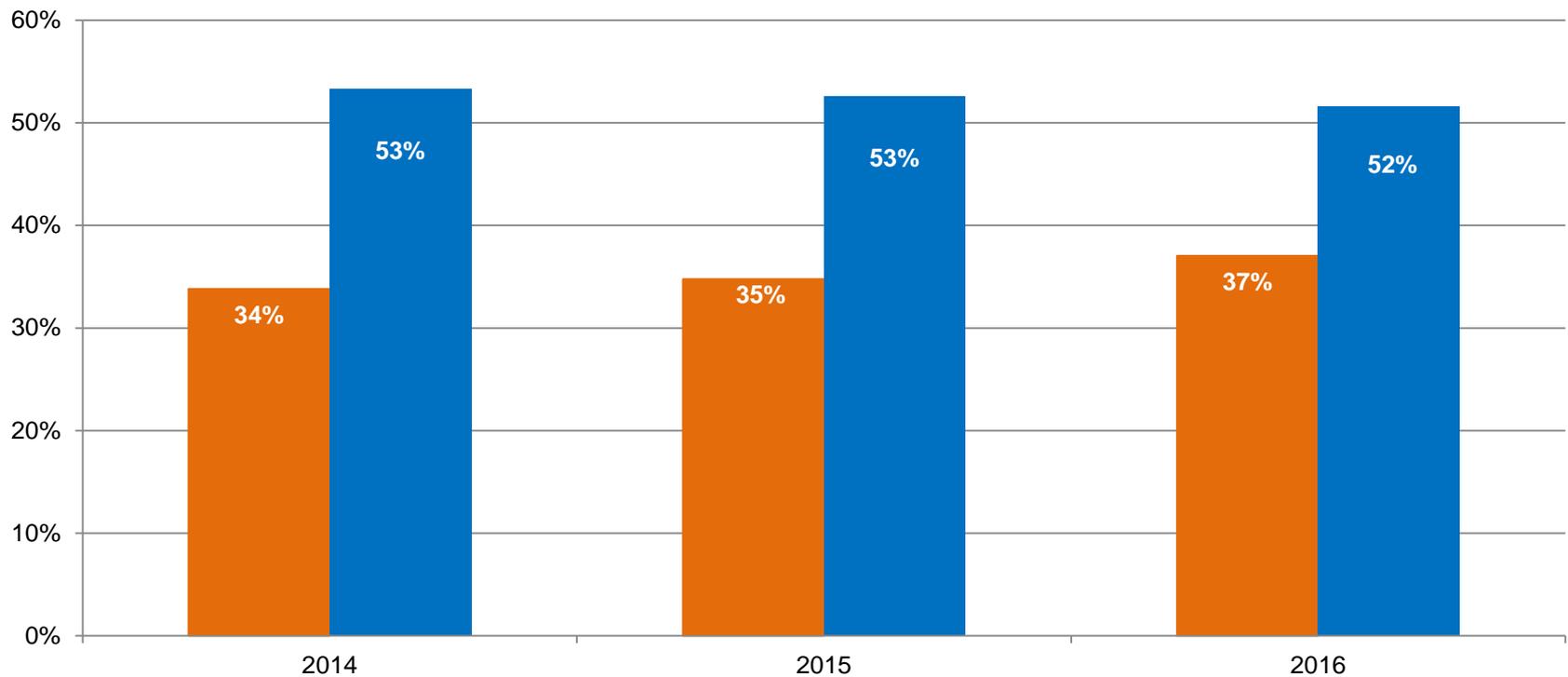


Source: CBK (2016)

◆ Annual growth of loans ◆ Annual growth of deposits

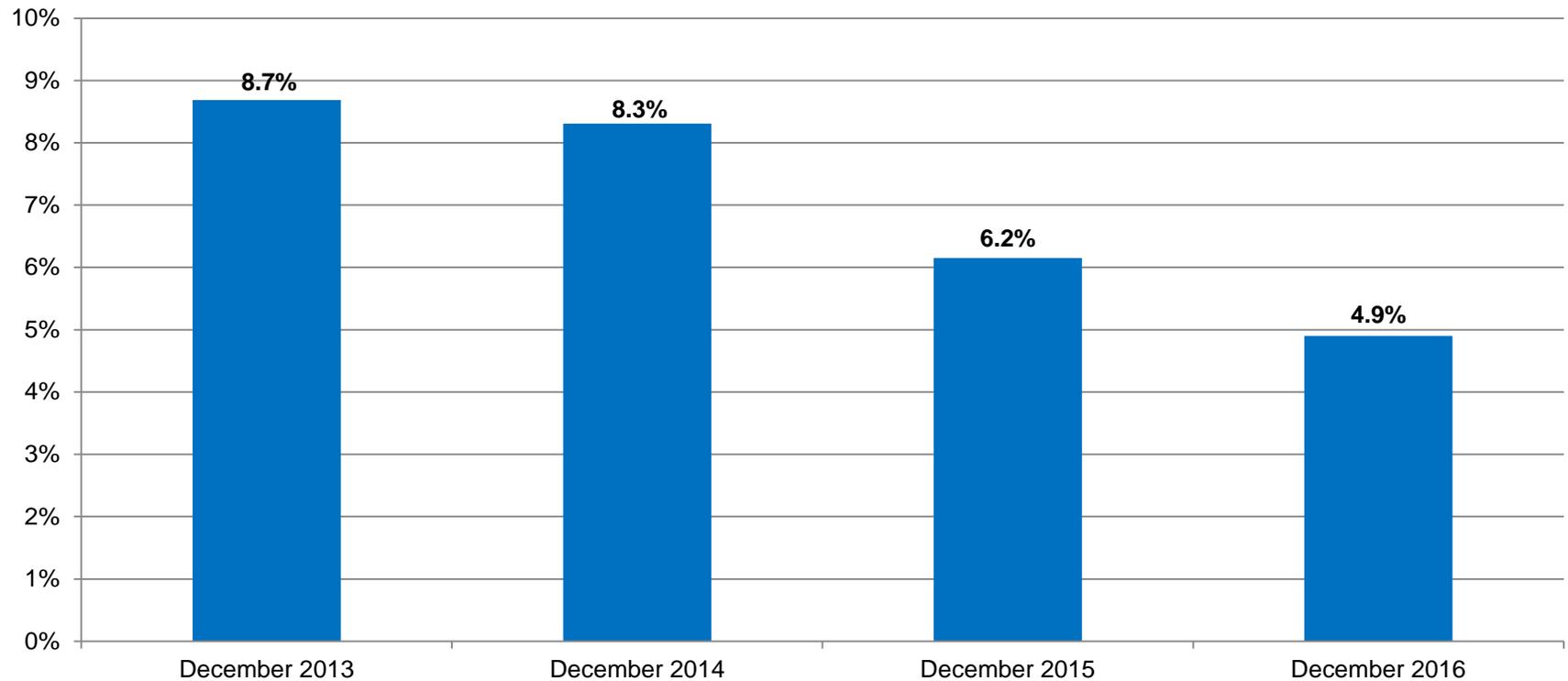
- Loan-to-GDP ratio increasing, but still space to catch up with the region's average.

Financial intermediation ratio



- The already good loan portfolio quality has further improved during the recent years.

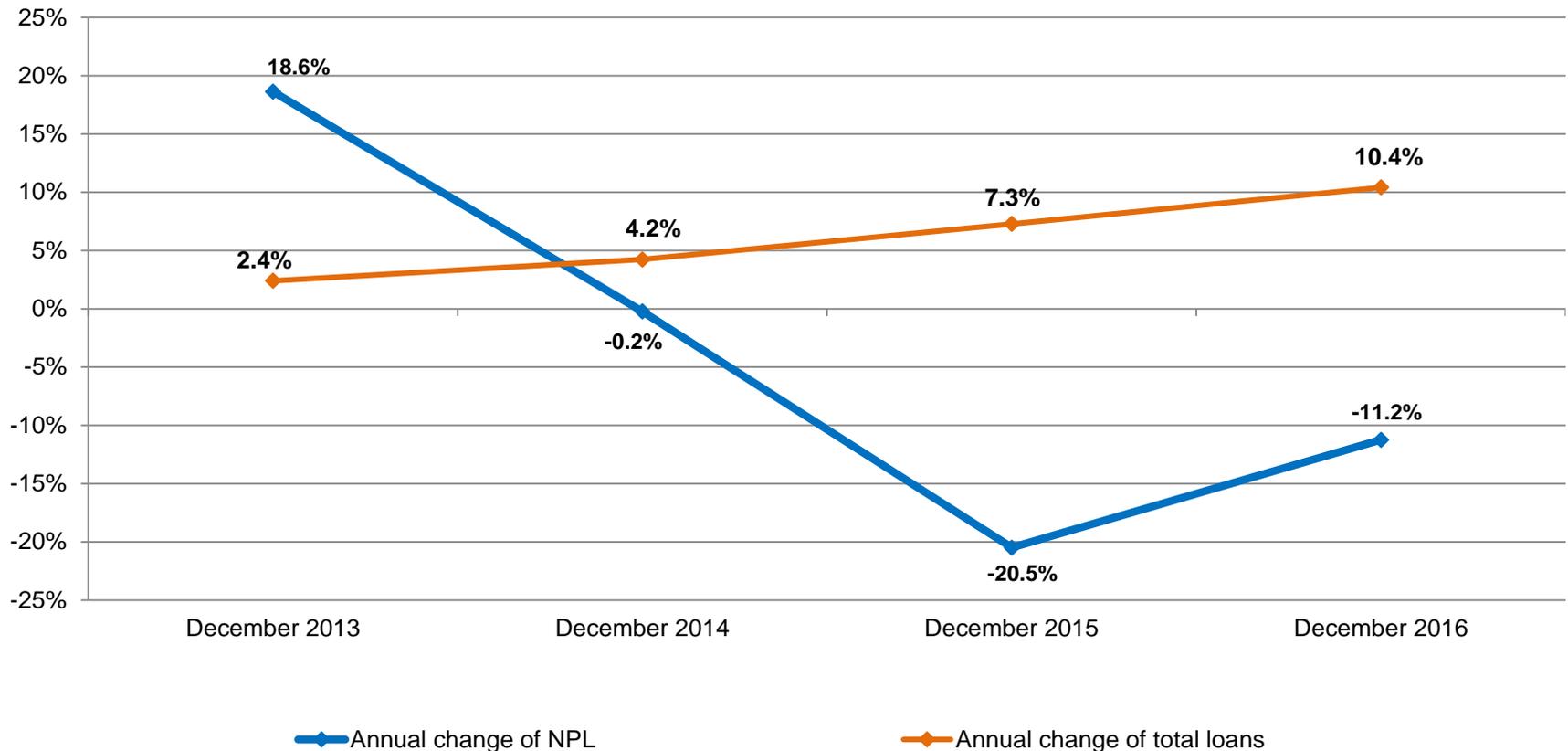
Non-performing loans to total loans ratio



Source: CBK (2016)

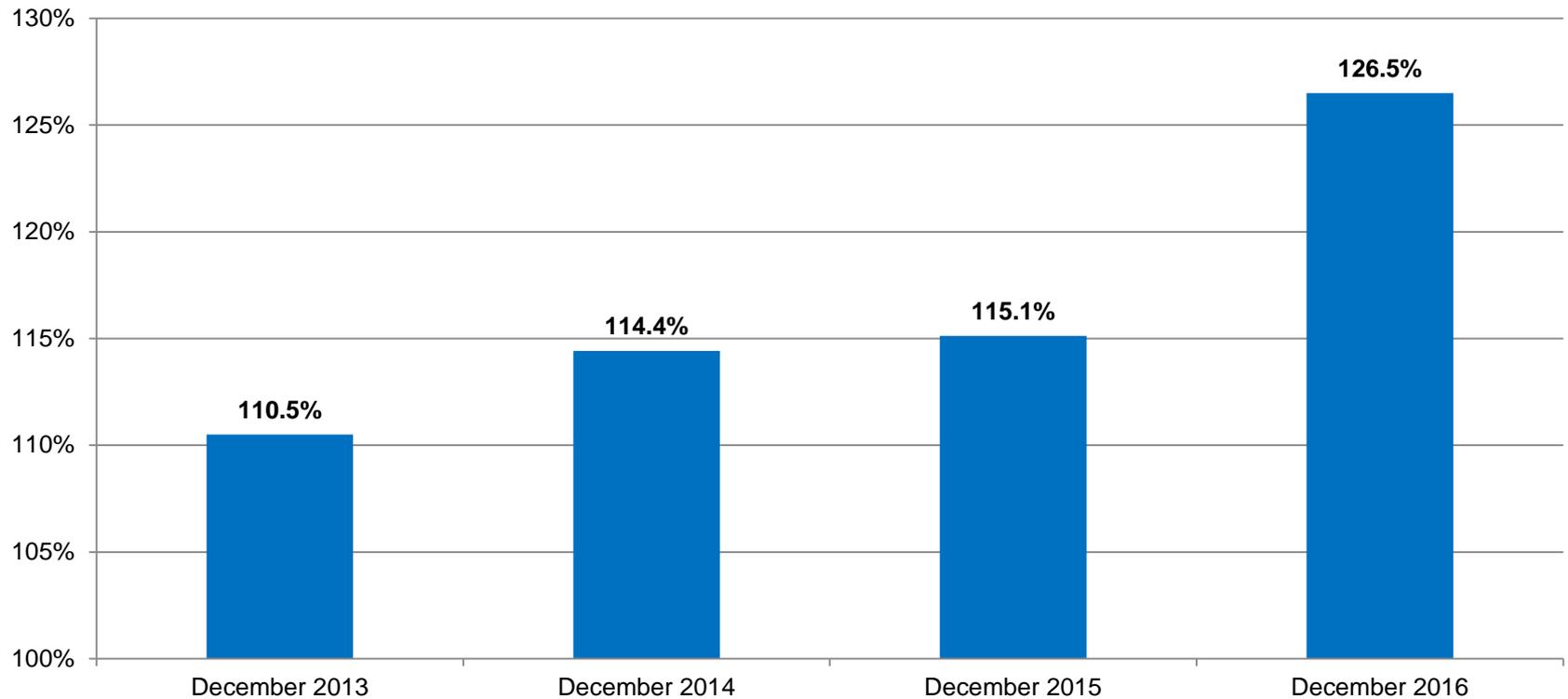
- Judicial reform and the base effect among the main factors driving the improvement of loan portfolio quality.

Total loans and NPL dynamics



- Non-performing loans well covered with loan-loss provisions.

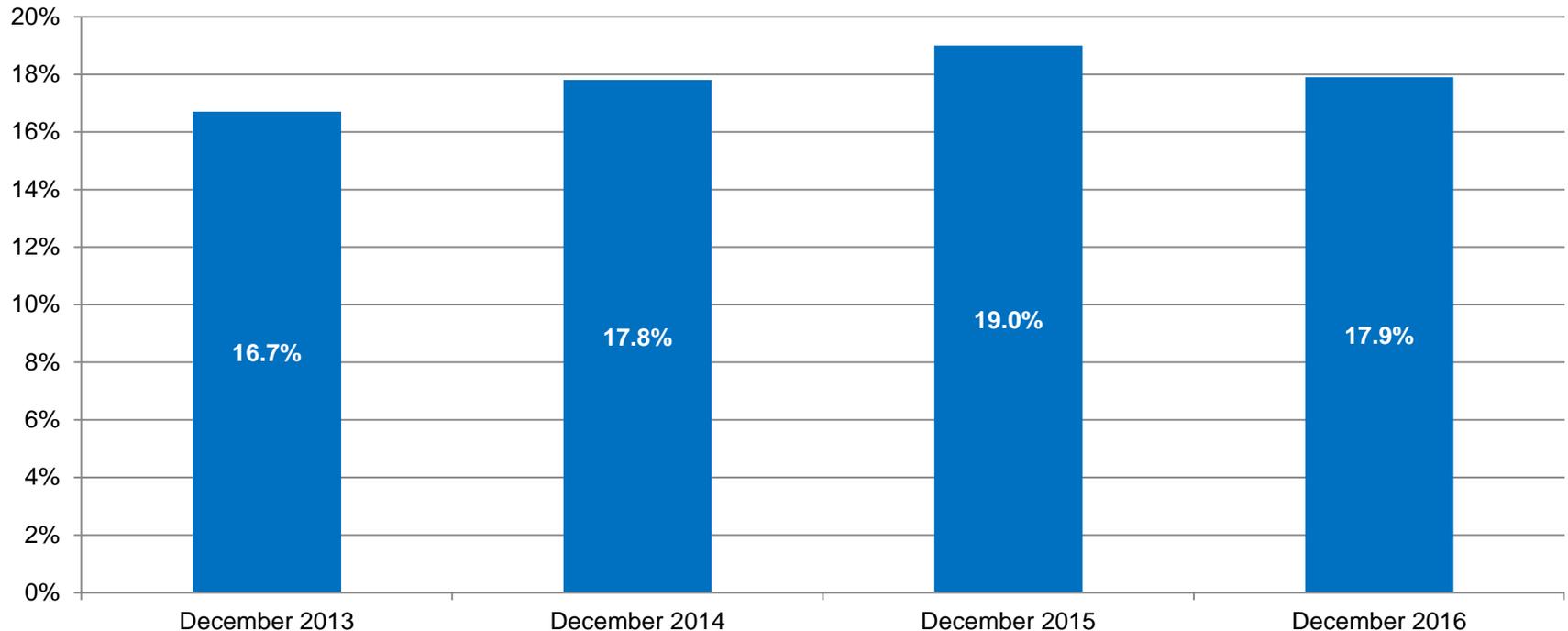
Coverage of NPL by loan-loss provisions



Source: CBK (2016)

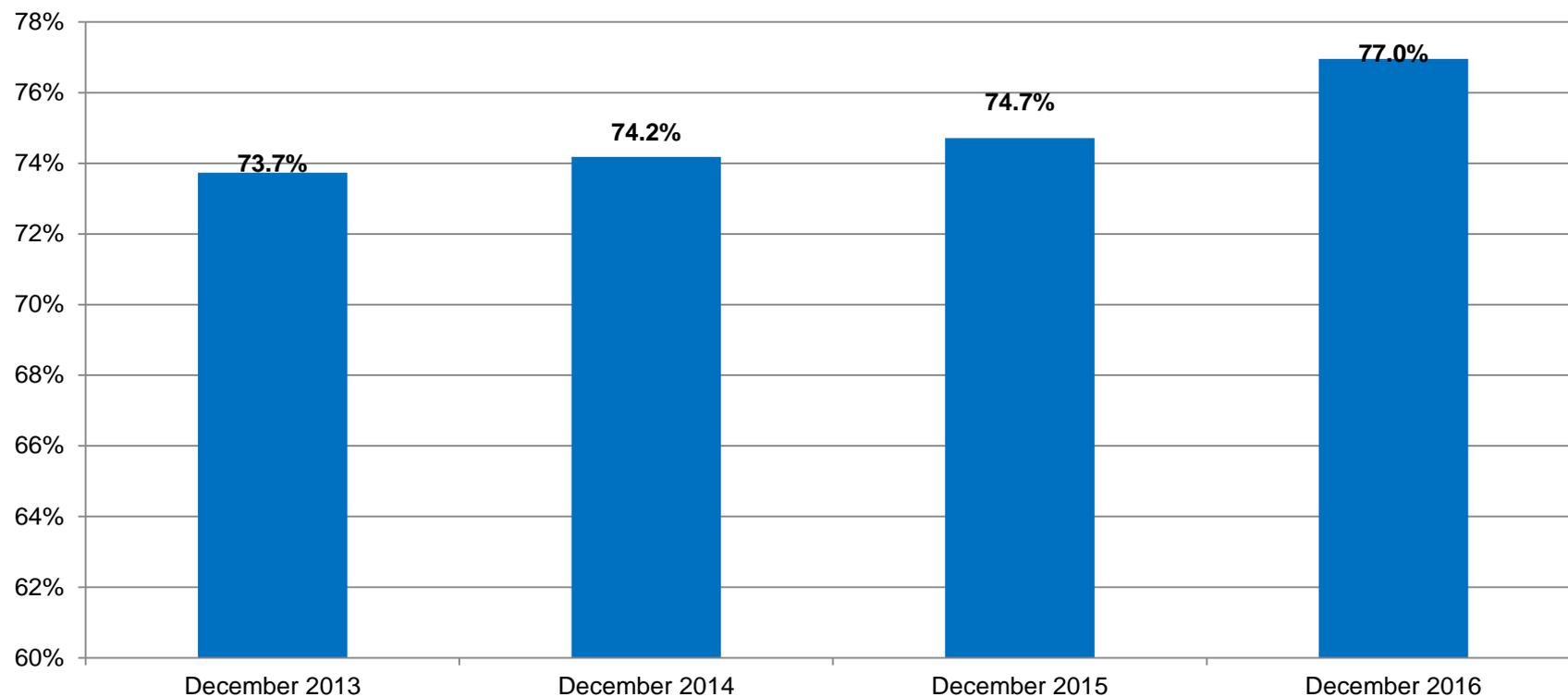
- Banking sector is well capitalized with capital adequacy ratio standing well above the regulatory requirement.

Capital Adequacy Ratio



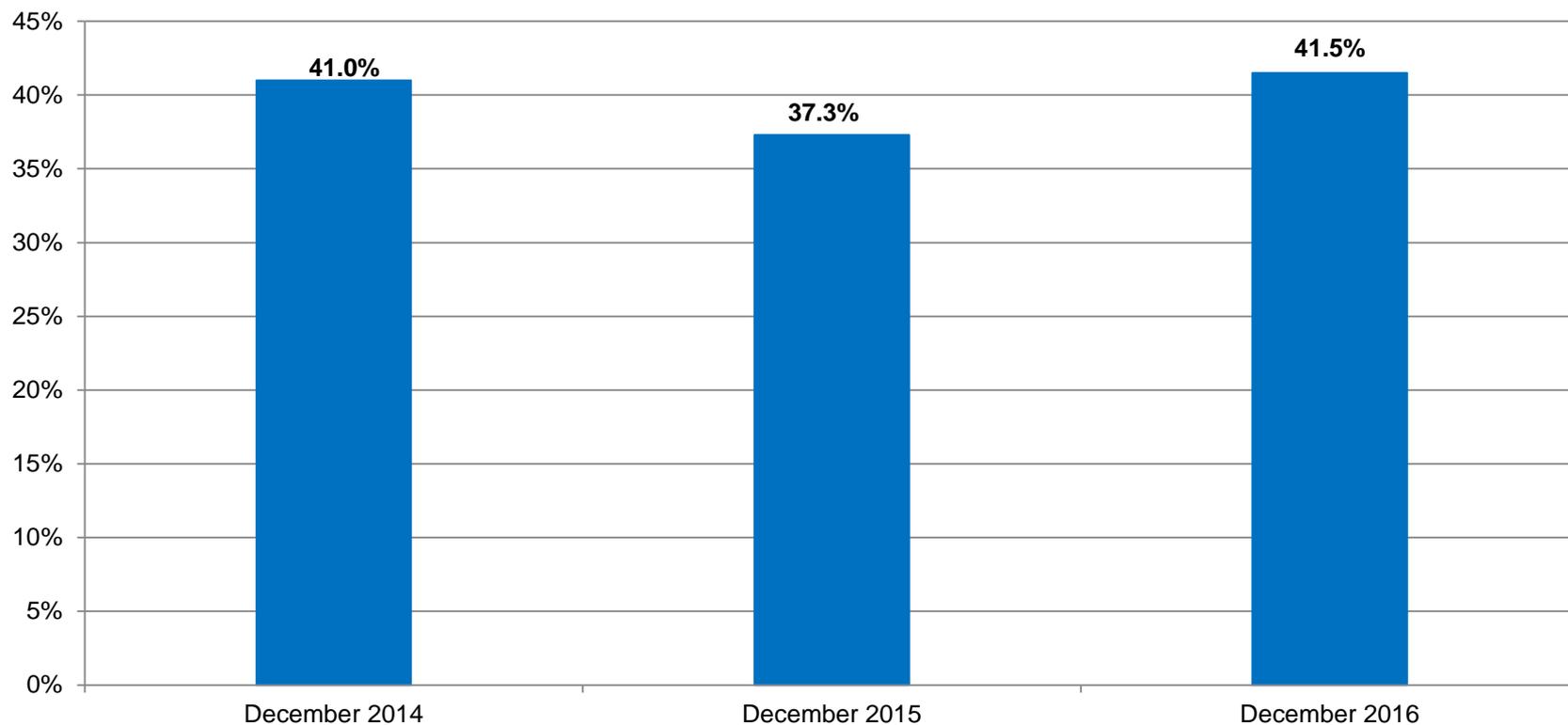
- Loan-to-deposit ratio considered rather low, implying further space for lending expansion without causing liquidity concerns.

Loan-to-deposit ratio

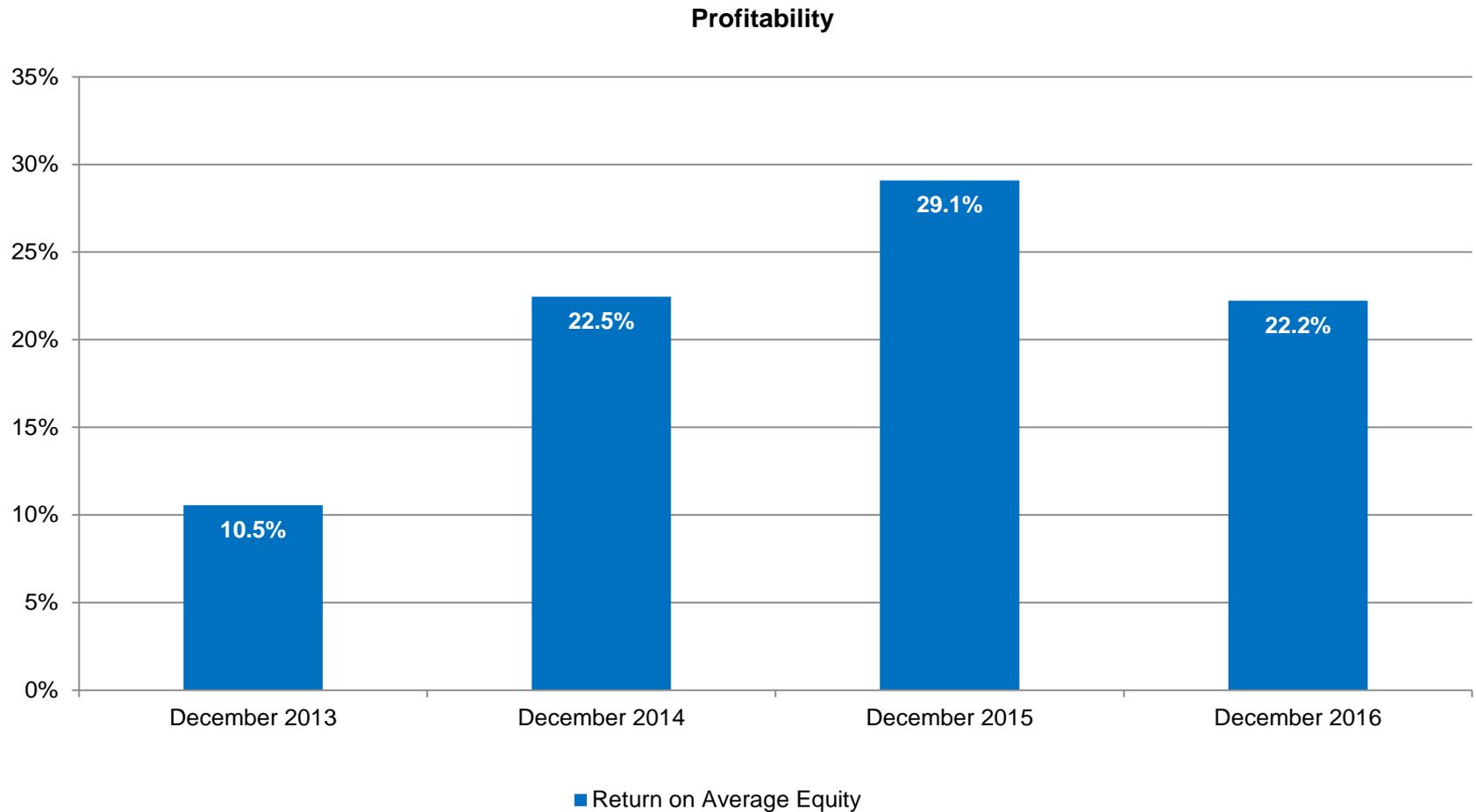


Source: CBK (2016)

- Strong liquidity position with the liquidity indicator standing well above the regulatory requirement of 25 percent.



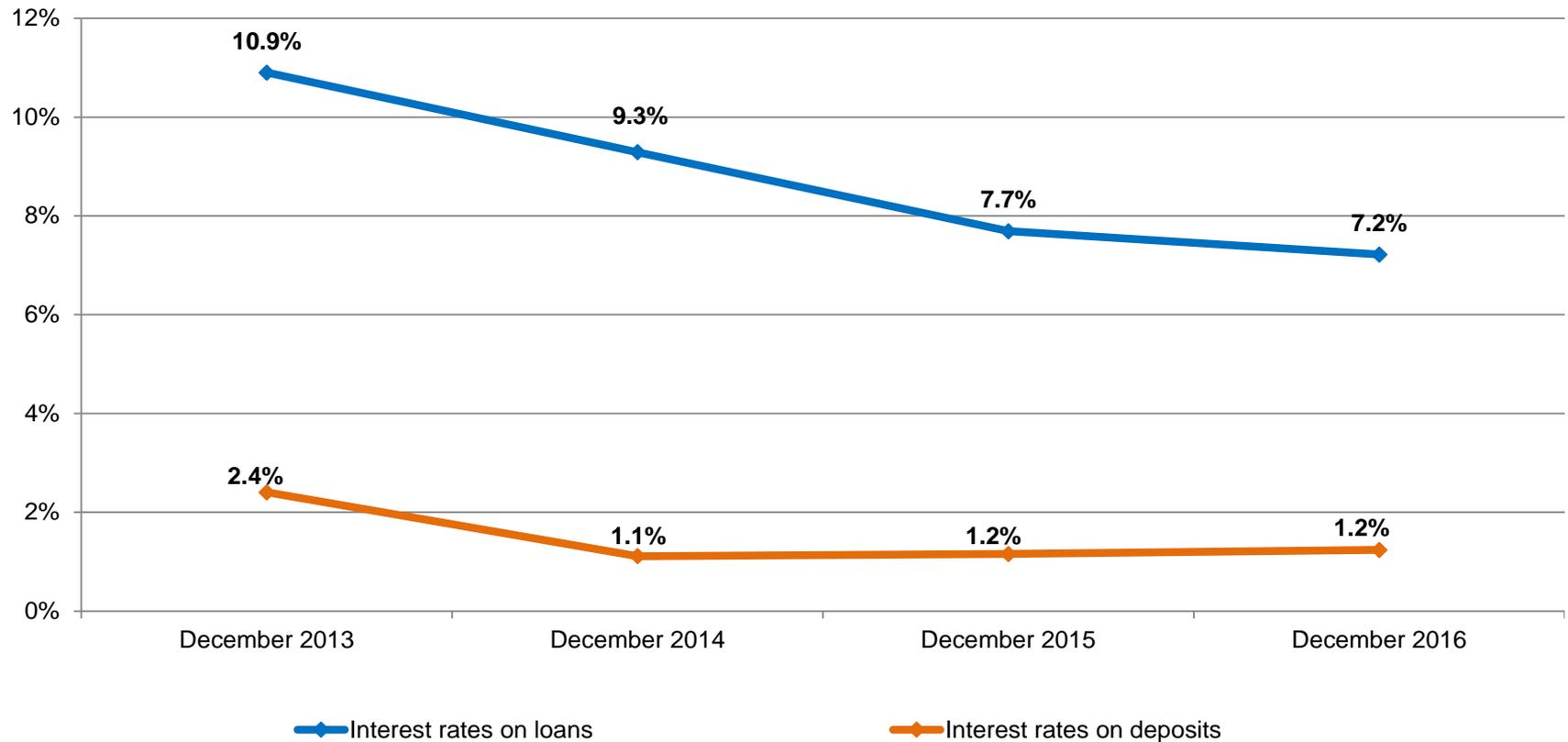
- The degree of profitability remains satisfactory.



Source: BQK (2016)

- The interest rate gap has substantially narrowed over the past years.

Interest rates



Conclusions

- Monetary policy may be an important tool to pursue financial stability, but not necessarily effective.
- Therefore, monetary policy discretion in (unilaterally) euroized economies is not necessarily missed.
- Unilateral euroization has reduced the financial risks and enabled a greater focus on financial stability issues.
- Reduction of risks and enhancement of intermediation efficiency in such economies rather pursued through structural reforms.

**ECB non-standard monetary policy measures
and financial stability
in Western Balkans economies with emphasis on
Montenegro case**

Author: Milena Vučinić

- ECB has introduced many key rate changes and non standard monetary measures as a response to number of unusual economic and financial events, in order to adress various risks including low inflation and distrurbances to the liquidity of certain assets markets in euro area.
- High degree of economic and financial integration between euro area countries and CEE pose a potential for monetary policy spillovers
 - Banking groups from EU play important role in financial system;
 - presence of banking groups from euro area - result in substential cross border banking flows
 - Euro zone countries are important FDI partners

- Montenegro is a small and open eurized economy, exposed to external effects
- Real GDP growth rate for 2016, based on quarterly estimates, is 2.5%; According to forecasts of the Ministry of Finance, real growth rate of GDP for 2017 and 2018 will be 3.2% and 4.4%,
- The annual inflation rate (CPI – Consumer price index) in March 2017 was 2.7%; Monthly increase of 0,1% in March 2017.
- Main risks in Montenegro are coming from fiscal side
 - high public debt (At the end of December 2016, public debt (gross) of Montenegro amounted EUR 2,546.1 million or 67.5% of GDP. Of these, the domestic debt is accounted 10.6% of GDP, the foreign debt is accounted for 53.1% of GDP,
 - and budget deficit (3,4% of GDP at the end of 2016, but lower then at the end of 2016)
 - In financial sector of MNE banking sector has a dominant role; highest risk is credit risk (still high NPL as % of total loans but lowered than in post crisis, period from 26% in 2011 to 10,2% today)
 - Real sector risk - high illiquidity
- Government of MNE has a applied fiscal consolidation measures; Fiscal consolidation and banking sector improvement contributes to financial stability

- CBM is very specific central bank that operates within the eurization regime. Monetary policy objectives and instruments are specific in such a regime. The main policy objective, defined by the Constitution, is to preserve the financial stability.
- Financial stability is in line with price stability, as the second one. Efficient supervision and safe and sound prudential policy are on disposal to the Central bank to achieve its primary objective.
- Stability of the banking system is a fundamental determinant of stability of the entire financial system. Banks are the primary source of funding for all sectors of the economy.
- Banking system of Montenegro consists of 15 banks; 9 of them in majority is in foreign ownership; Five banks are members of banking groups from EU

ECB monetary policy and transmission channels to dependant countries and Montenegro

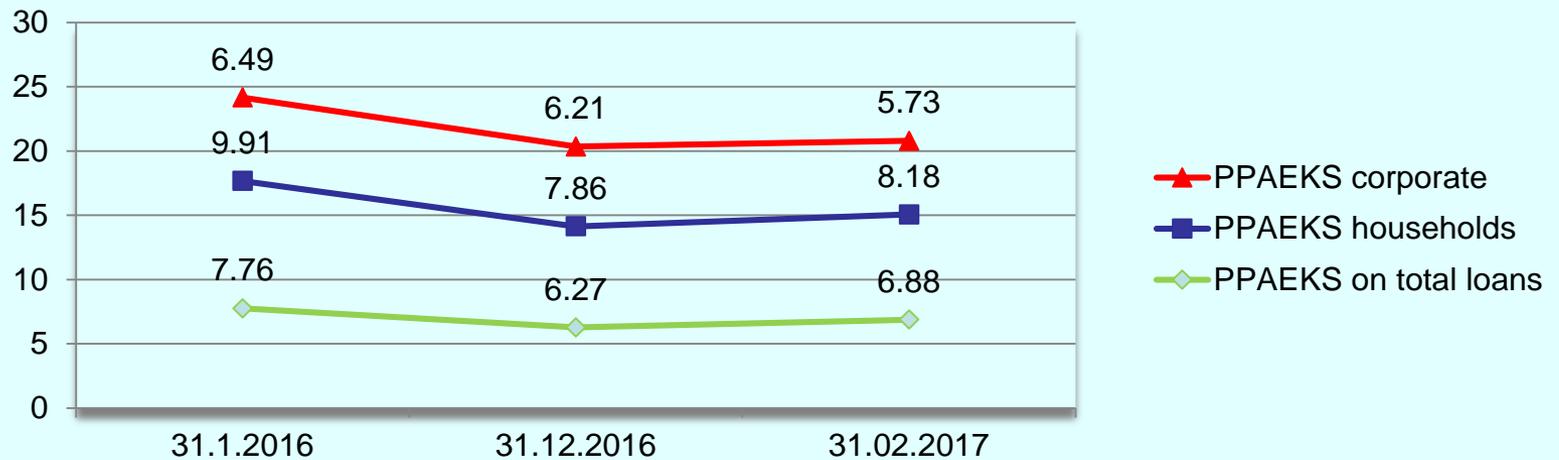
- All economies in the region are open economies with strong trade and financial linkages with the EU. Therefore, accommodative monetary policy of the ECB may be transmitted to the region. (focus on the financial channel)
- Despite the heterogeneity of the monetary policy and exchange rate regimes in the region, the policy rate reaction of the central banks has been mostly in line with the accommodative stance of the ECB.
- Low interest rate environment in the Euro zone provided a space for lower interest rates in the region
- The eased monetary stance across of the central banks in the region led to relaxing of the financial conditions for borrowing of the private sector.
- As a result of ECB lower rates banks in MNE decreased interest rates, which influenced an increase in corporate and household loans; Even though interest rates are still high compared to European average, they have downward trends

ECB monetary policy and transmission channels to Montenegro – lower interest rates

Graph 1. Average effective active interest rates for period 31.01.2016.- 28.02.2017

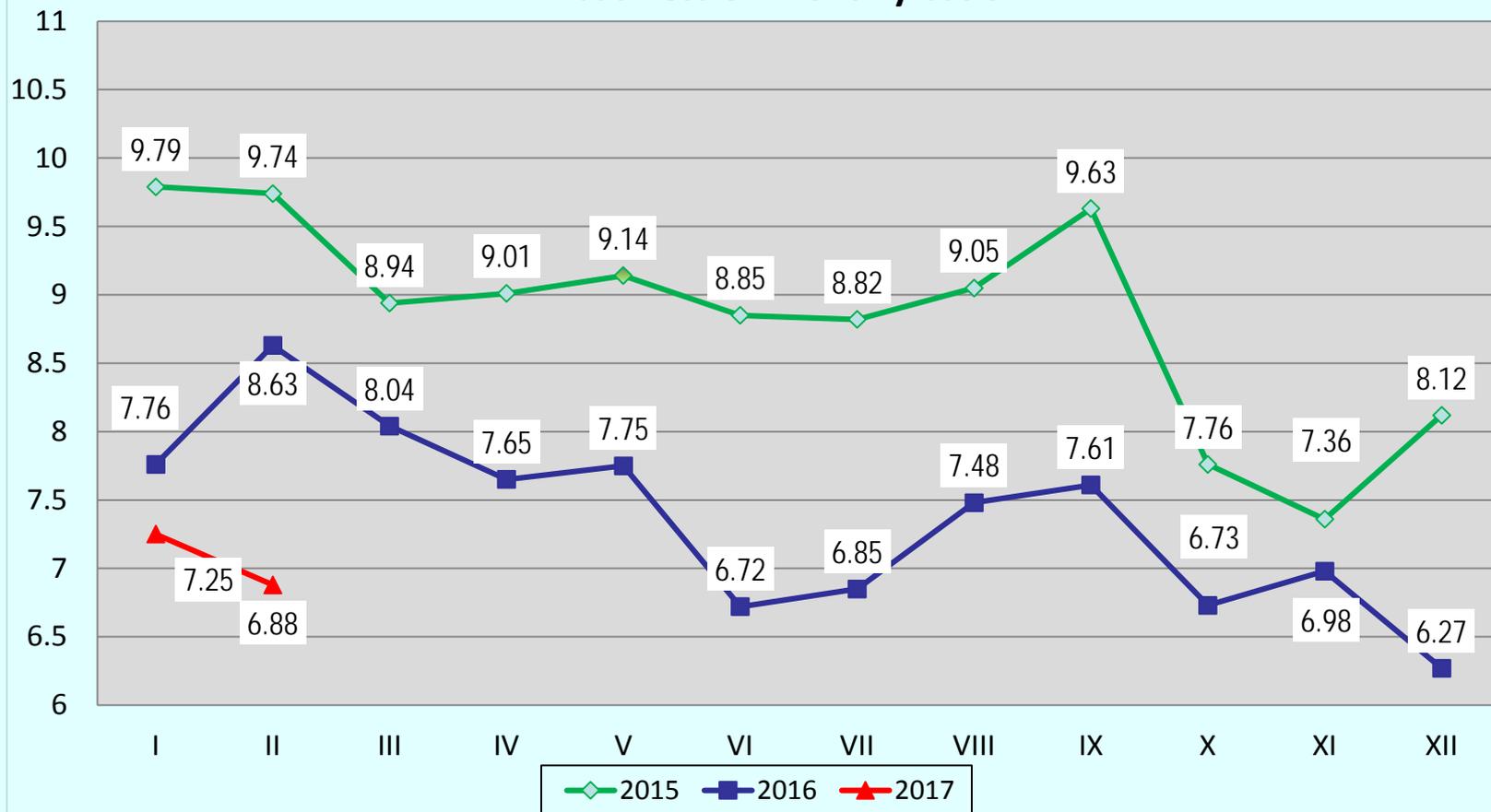


Graph 2. Average effective active interest rates on new loans 31.01.2016.- 28.02.2017



ECB monetary policy and transmission channels to Montenegro – lower interest rates

Weighted average effective lending interest rates of banks –New business on monthly basis



- Lower ECB interest rates influenced more favorable condition for country to provide financing from external sources at lower rates which lead to increase of public debt taking.
- Due to high public debt and budget deficit, whereas expenditures are higher than revenues, the Government has to search for external financial sources
- In year 2016 Euro bond was issued at the 300,00 million euros, issued for 5 year maturity, at the rate of 5,75%
- In November 2016 Montenegro issued domestic bonds, 80,4 million euros was sold, for 4 year maturity, at fixed interest rate of 4% for financing budget deficit, capital budget, public debt servicing and providing fiscal reserve
- Government of Montenegro opted for growth strategy; increased public investment; the biggest infrastructure project – high way construction
- There are pros and cons of this strategy: financial sources at lower rates, but increased public debt

- Central Bank of Montenegro Law (OGM 40/10, 46/10 and 6/13) defines the following CBM monetary policy instruments: open market operations, credit operations, lender of last resort and reserve requirements.
- However, until now, the CBM has actively used only reserve requirement policy.
- CBM has used reserve requirements on bank deposits in order to manage credit cycles and liquidity, and to some extent to achieve macro-prudential goals.
- Namely, with this instrument, central bank affects the banks' lending activity and indirectly affects further process of money multiplication (the money supply) in the economy. Thus, reserve requirements is one of the main policy instruments in Montenegro.

MNE: reserve requirement policy

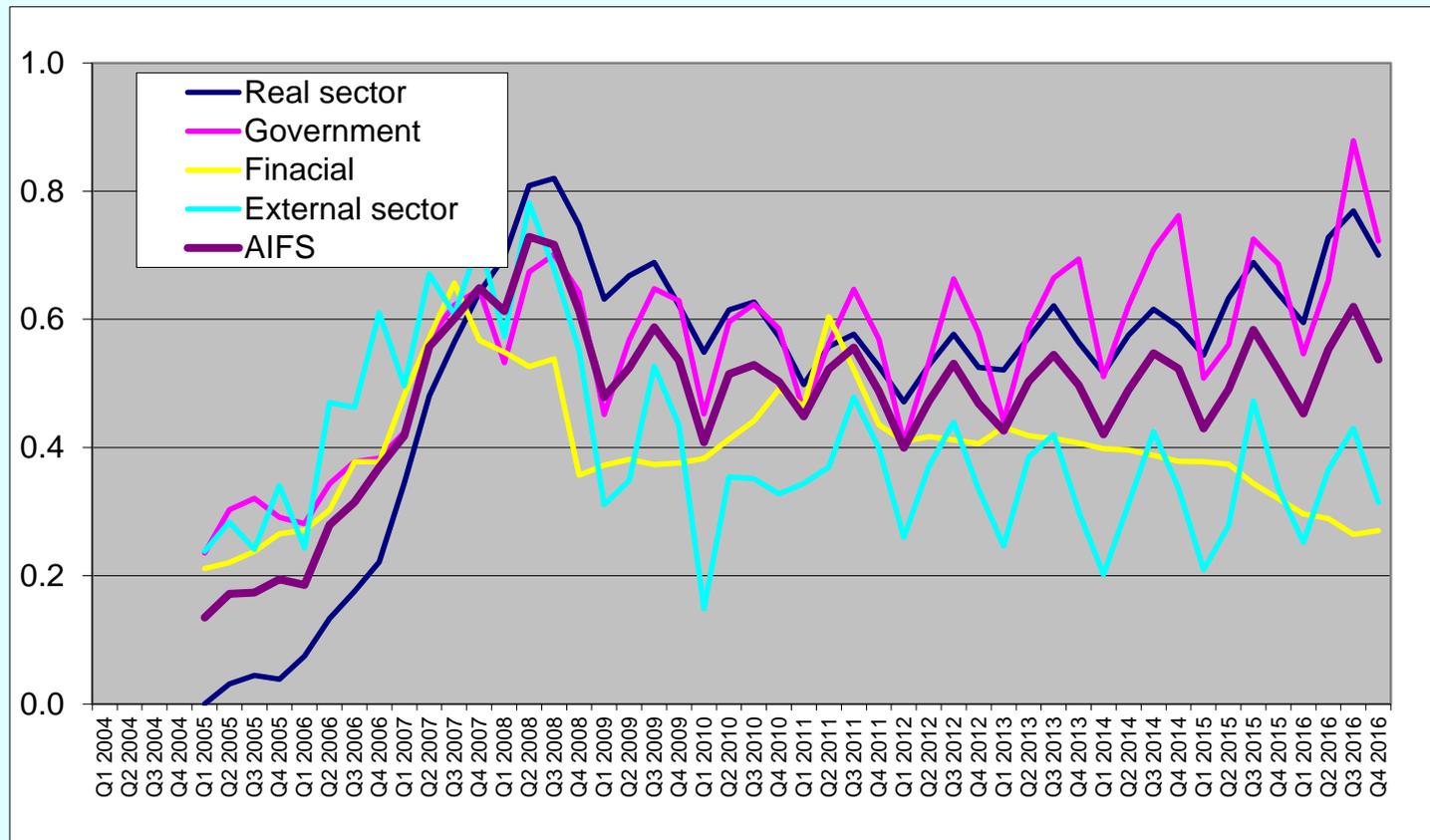
- In the pre-crisis period CBM has increased rates on bank deposits in order to limit excessive credit growth and limit the excess leverage of borrowers in the economy, while in post-crisis period lowering the rates on banks deposit reserve requirement has been used to ease liquidity constraints and to encourage banks' lending.
- In period 2006-2008, the objective was on decreasing credit activity and trying to strengthen the banks resilience on potential risk that can be developed after the credit boom. In this period, conservative approach in creating regulation was present. Most of the regulation, in that time, was more severe than international one, especially prudential one. CBM has used reserve requirements on bank deposits in order to manage credit cycles and liquidity, and to some extent to achieve macro-prudential goals.
- New Decision Amending Decision on Bank Reserve Requirement to be Held with the Central Bank of Montenegro as of March 2017
 - percentage “9.5%” replaced by the following “7.5%” for demand deposits, time deposits up to one year or up to 365 days, time deposits over one year or over 365 days with a clause of the possibility of cancelation in period shorter than one year or shorter than 365 days
 - the percentage “8.5%” replaced by the following “6.5%” for time deposits over one year or over 365 days.

- ❑ Financial stability in Montenegro is necessary not only to promote internal stability but also to attract the inflow of the FDIs and development of SMEs necessary for economic convergence on the EU's level of economy.
- ❑ Due to the scope of financial stability and effectiveness of Central bank instruments, limitation with income policy in the country, in this settlement, fiscal policy got the mandate of adjustment policy.
- ❑ In the current environment of low inflation and/or zero interest rates policy the effectiveness of monetary policy instruments has been challenged
- ❑ The recent global financial crisis posed new challenges for the monetary policy and demonstrated the need for wider approach in objectives. Necessity for creating strong and resistant financial system. In this context has been recognised a macro prudential policy.
- ❑ In the absence of monetary police CBM focuses on financial stability and is in the process of developing macroprudential policy and instruments. Having the mandate for preserving financial stability CBM potentially has a mandate for macro-prudential policye, but is not explicitly stated. Thus CBM is in the process of creating macro-prudential framework where will be emphasized a mandate for MPP.
- ❑ Due to the last statement of the Council for Financial Stability the financial system in MNE is stable, systemic risk is moderate, with presence of potential risks of real sector illiquidity and insolvency, which have influenced an increase of pressure in fiscal domain.

Focus on systemic risks

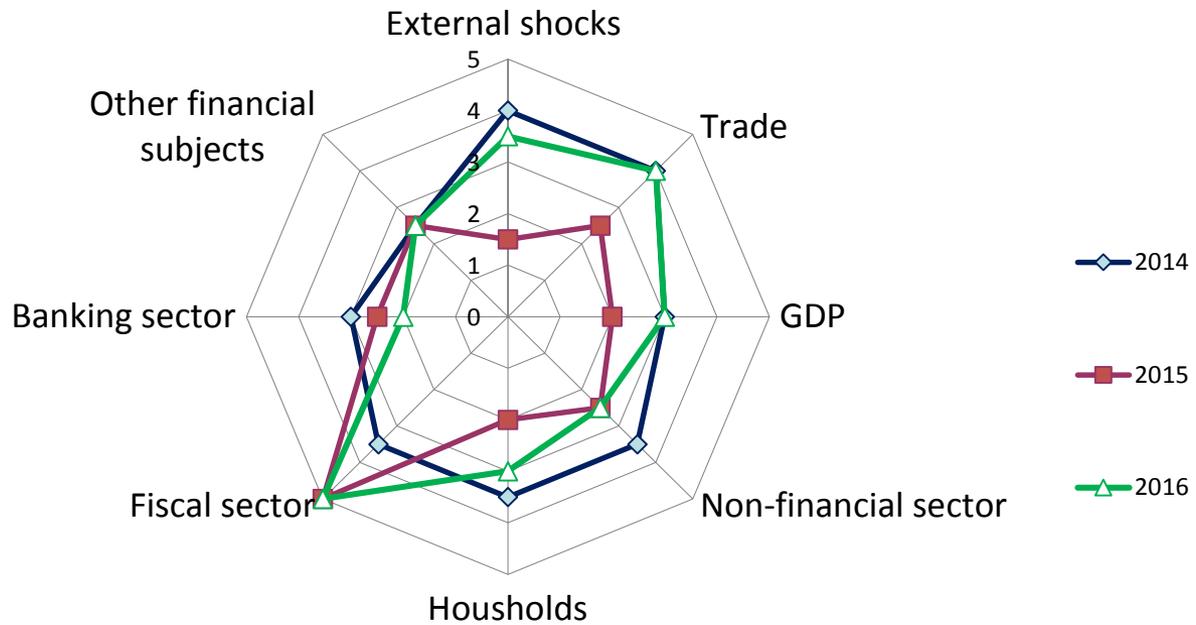
Aggregate index of financial stability

- AIFS is derived index, used to assess financial stability situation calculating four subindexes, which refer to: external sector (payment system), government (public finance), real sector and financial sector. Used to assess the systemic instability trends, because this way are analyzed resources of instability and risks that can affect total system stability.
- AIFS at the end of 2016 was higher compared to the end of 2015



Focus on systemic risks

Financial Stability Diagram



Thank you for your attention!