National Bank of Ukraine

Financial Stability Report

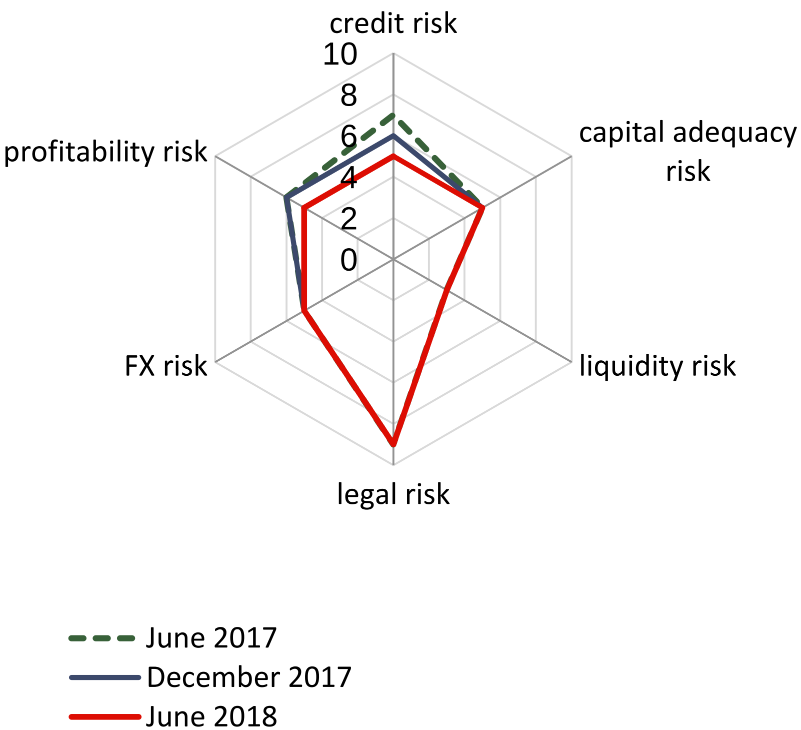
June, 2018

Key Conclusions

- In H1 2018, the banking sector managed without notable shocks and the macroeconomic conditions were favorable. The NBU estimated that over the last half a year the credit risk and the profitability risk of the banking sector have decreased. The liquidity risk remains low.
- The key objective for authorities is to speed-up structural reforms as part of the IMF cooperation. Unless the IMF cooperation is resumed, the conditions for external debts refinancing will be unfavorable for Ukraine.
- Inflow of hryvnia funding remains steady (about 15% yoy); customer funds provide for over 80% banks' liabilities. These are mostly short-term deposits that translate into liquidity risks in case of unwelcome developments.
- Net hryvnia retail loans are increasing at the rate of 40% yoy. At present, retail lending does not pose systemic risks for the financial sector. However, risk appraisal of such loans by a number of banks is not conservative enough.
- High NPL rate (56.2% at the end of April) restrains corporate lending. At the same time, according to the NBU, loans to non-defaulting borrowers are increasing by over 20% yoy.
- The sector's returns in Q1 2018 amounted to UAH 8.7 billion (ROE=22.3%) thanks to high operating income and significant drop in provisioning. The NBU estimated that provisions in 2018 would be the lowest over the last decade.
- A number of banks still have a low operating performance and/or operate at a loss. Such banks are at risk and remain under vigilant supervision.
- Most banks have successfully converted to IFRS 9, its impact on the banks' equity and regulatory capital was moderate.

In H1 2018, the credit risk and the counterparty risk decreased

Risk map

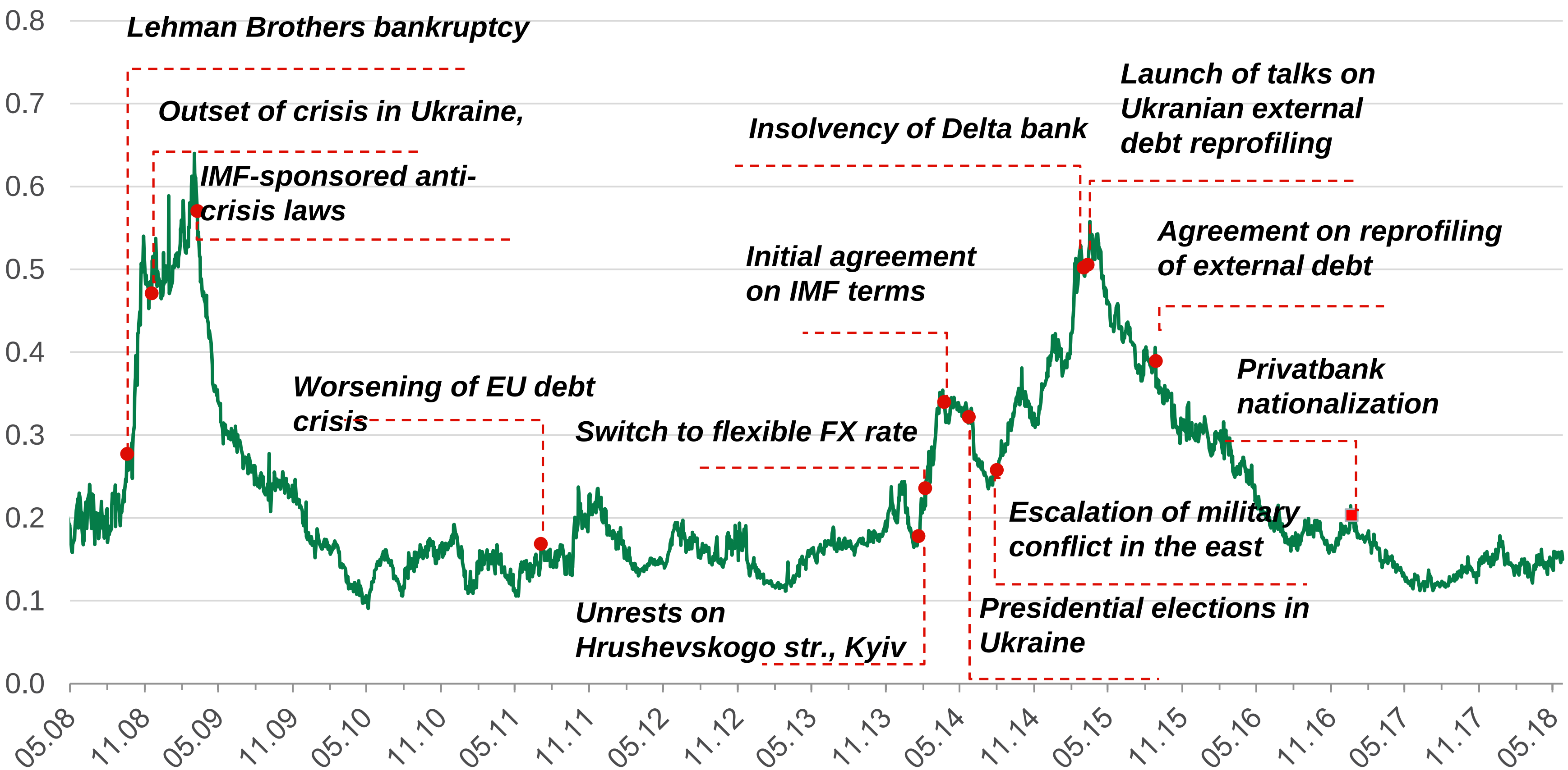


Source: NBU

- **Credit Risk (-1).** The financial standing of clients has improved, a number of large borrowers restructured their bad debts, and the share of unprovisioned past due loans decreased.
- **Capital adequacy risk (const.).** The banks' operating profits generated this year have offset the decrease in equity resulting from conversion to IFRS 9. Several banks received additional capital from their shareholders. Individual small financial institutions remain at risk.
- **Liquidity risk (const.).** Surging customer deposits led to lower borrowing cost.
- **Legal risk (const.).** Appointment of the new Supreme Court judges is expected to facilitate unbiased and impartial hearing of court cases.
- **Foreign exchange risk (const.).** Dollarization is still high, albeit the open foreign exchange position of most banks is insignificant. Uncertainty over further cooperation with the IMF poses risks for the hryvnia exchange rate and the banks' balance sheets.
- **Profitability risk (-1).** Lower borrowing costs boost net interest income, while commission income is growing thanks to stronger demand for banking services. Provisioning continues to decline.

Overall level of stress has been moderate for almost two years

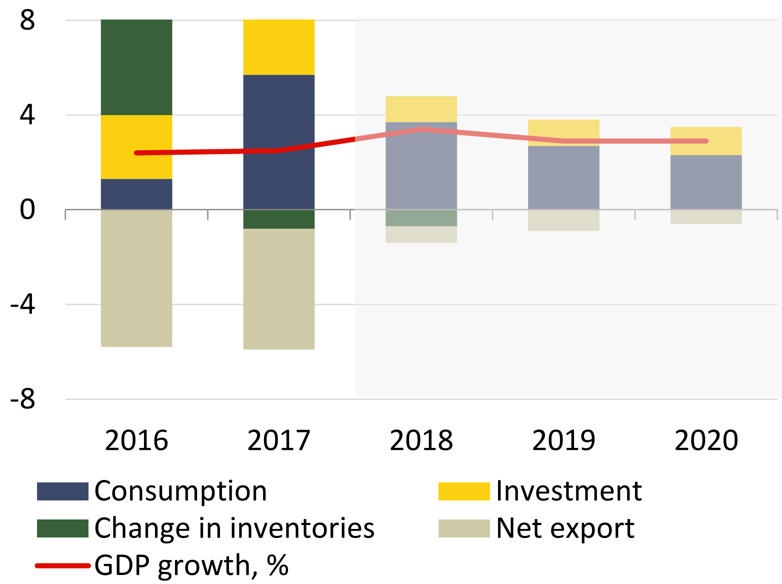
Financial Stress Index



Source: NBU

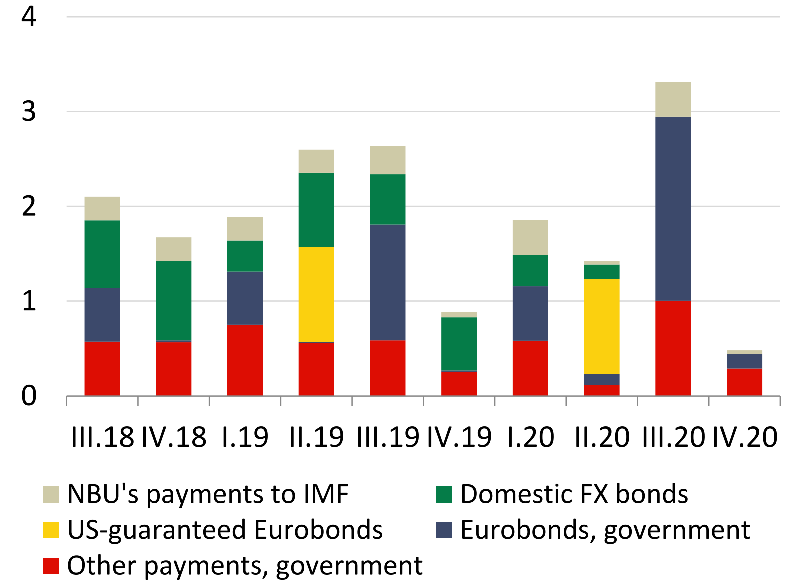
The key objective for authorities is to speed up structural reforms

Growth in GDP by final expenditure, pp



Source: NBU estimates.

Repayments under public and publicly guaranteed debt, USD billion*

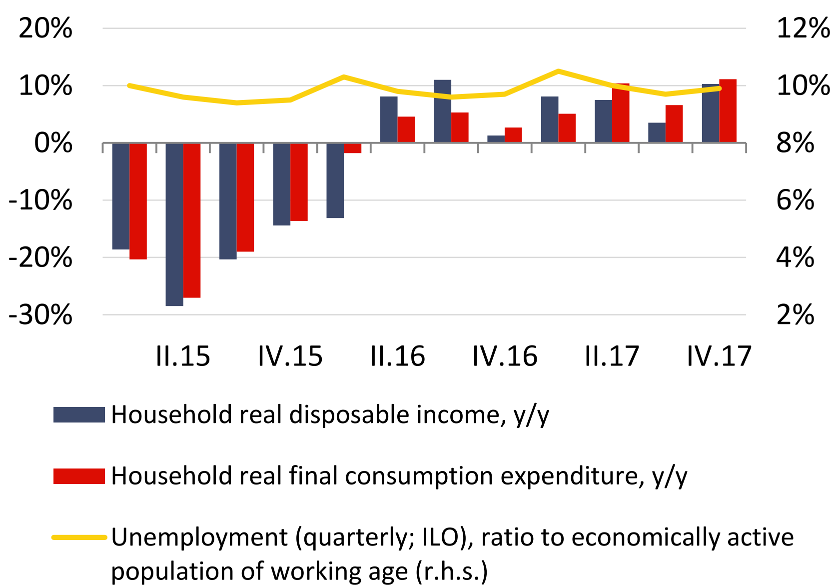


** including interest*

- Slow structural and institutional reforms restrain the economic growth.
- The short-term challenge for the financial stability is the need to refinance substantial external public debts in the following two years.
- With that in mind, the resumption of cooperation with the IMF is the key objective of the government. Chances for renewing the IMF program have substantially increased after the adoption of the Law *On High Anti-Corruption Court*.

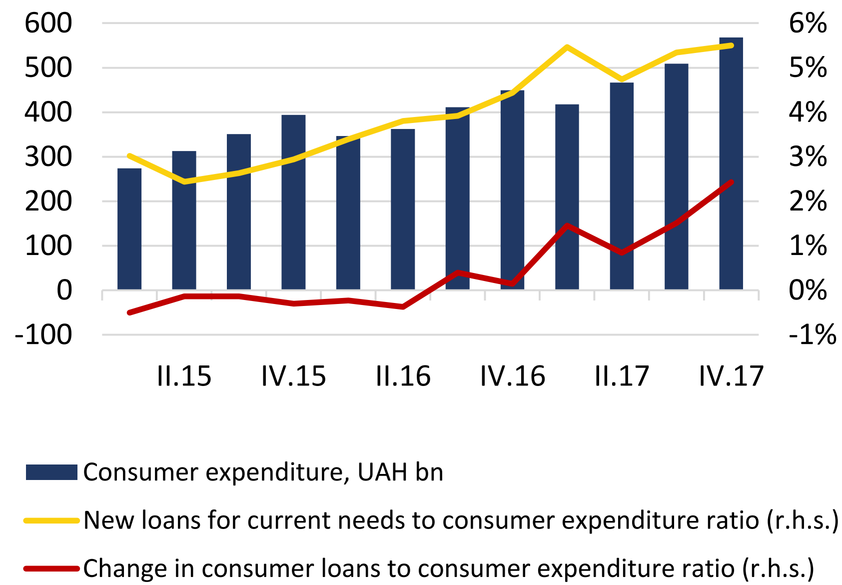
Solvency of households improves notably in 2017

Real disposable income, consumer spending and unemployment rate



Source: SSSU (revised data), the NBU estimates

Effect of banks' consumer lending* on consumer spending

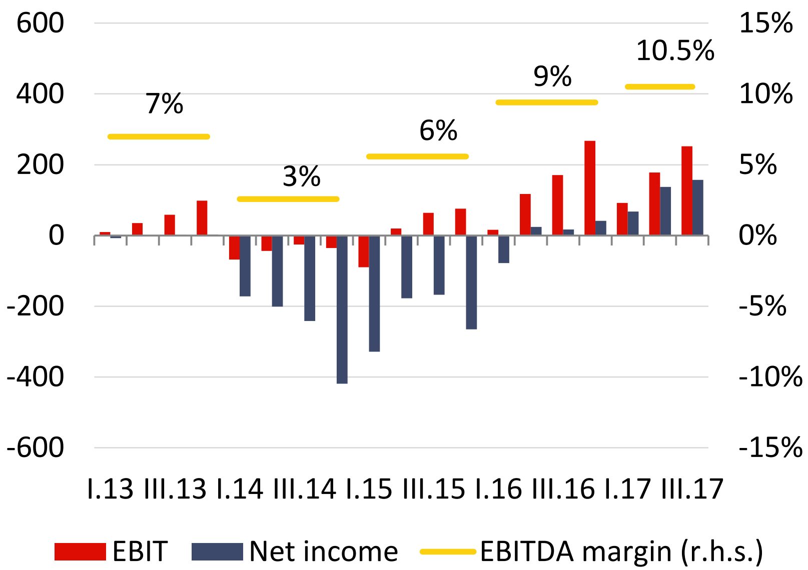


** Gross consumer loans issued by solvent banks*

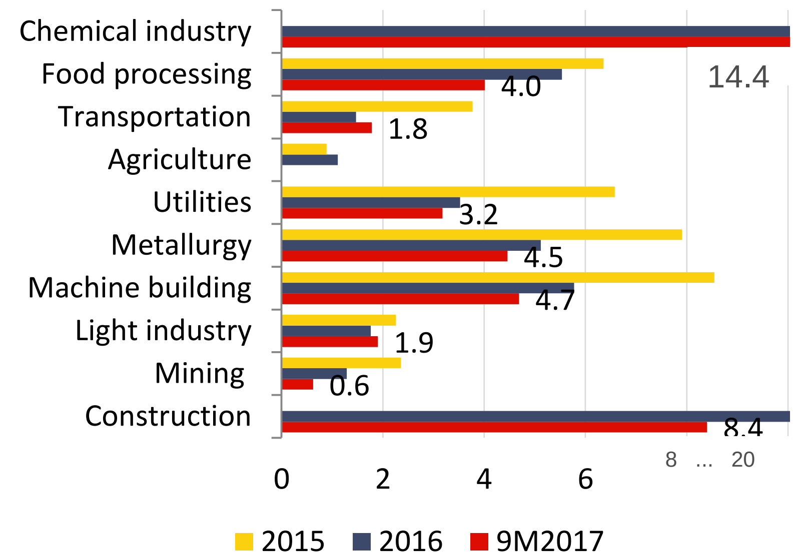
- The disposable household income accelerated to 7.4% in 2017 from 2.0% in 2016.
- The total debt burden of households is moderate, and continues to decline, from 11% to 10% of the annual disposable income (down to 6.5% of the GDP).
- Consumer lending has negligible impact on household spending – the share of net consumer loans to in total household spending was tiny 1.6% in 2017.

Financial condition of the real sector gradually improves in 2017

Financial performance of non-financial corporations, UAH billion



Debt-to-EBITDA ratio over 12 months with a breakdown by sectors

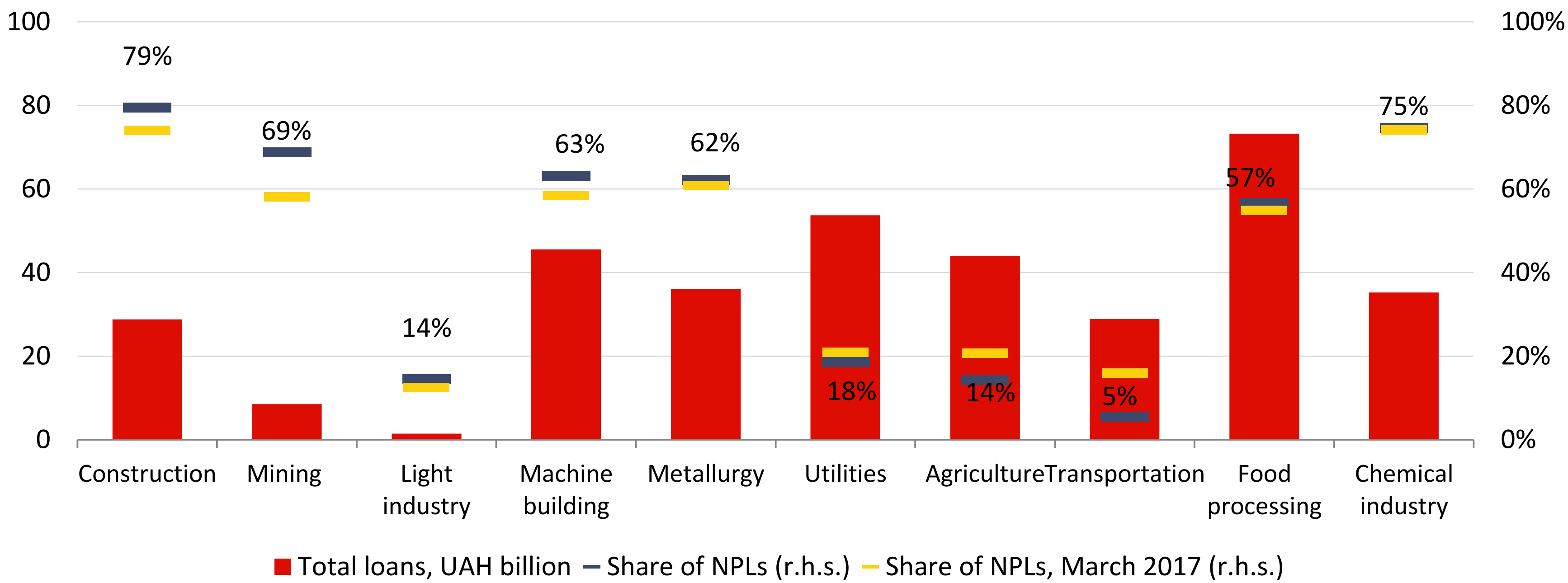


Source: NBU

- Margins in the real sector have increased during 2015–2017 and now they are above pre-crisis levels.
- Net Debt-to-EBITDA ratios are allowable for companies from most sectors, except chemical industry and building&construction.
- Companies from agriculture, food processing , transport, energy and machinery industries have good potential to get new bank loans.

Share of non-performing loans in the real sector remains high despite the financial conditions improvement

Non-performing loans of non-financial corporations, March 2018

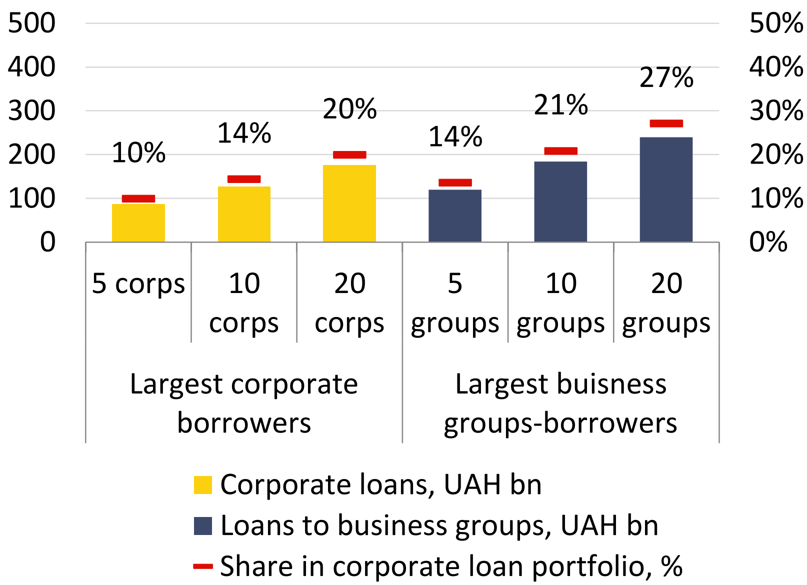


Solvent Banks as of 1 April 2018
Source: NBU

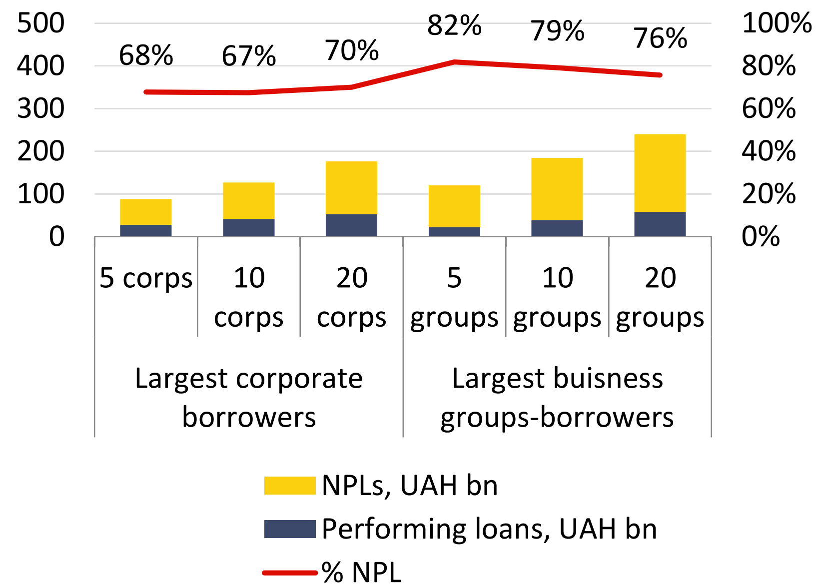
- Transportation, agriculture, and light industry have the least proportion of non-performing loans, while chemical industry and buliding&construction have the largest NPL ratios.
- Sectors with highest loan concentration saw increase in the NPL rate over the last year (mining, construction, and machine-building), while NPL ratio went down for sectors, which have less loan concentration (transport, utilities, agriculture).

Large business groups continue not to service their loans

Gross loans to the largest borrowers as of 1 April 2018*



NPLs and NPL ratios for largest borrowers' loans as of 1 April 2018*

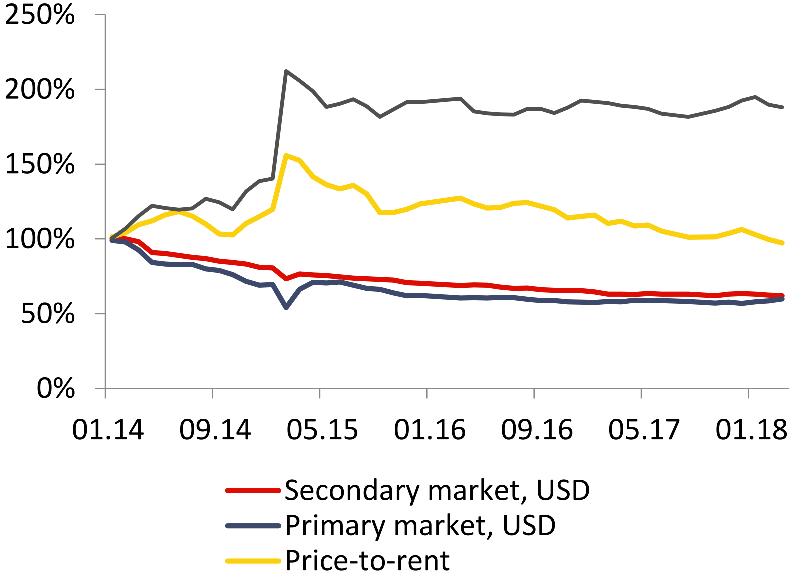


** ex-Privat Group*
Source: NBU

- There is still high concentration of corporate loans. Twenty business groups account for over a quarter of total corporate loans.
- Payment discipline of largest business groups is much worse than average for all corporate borrowers. The NPL ratio of the top 20 groups is 76% (excl. Privat Group) – against average of 58%.
- The largest groups usually nether repay nor restructure their loans. In general, they expect banks to offer very favorable (non-market ones) terms of restructuring.

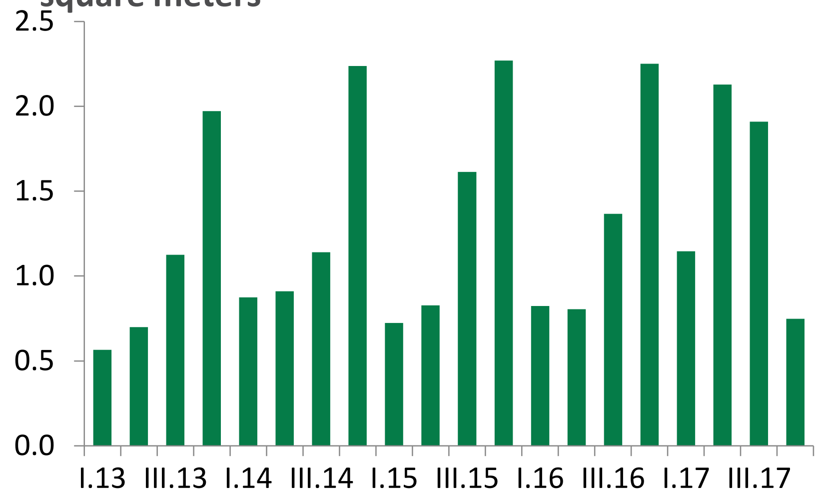
Prices on the real estate market have stabilized, while demand remains depressed

Kyiv housing prices, December 2013 = 100%



Source: real estate agencies, NBU estimates

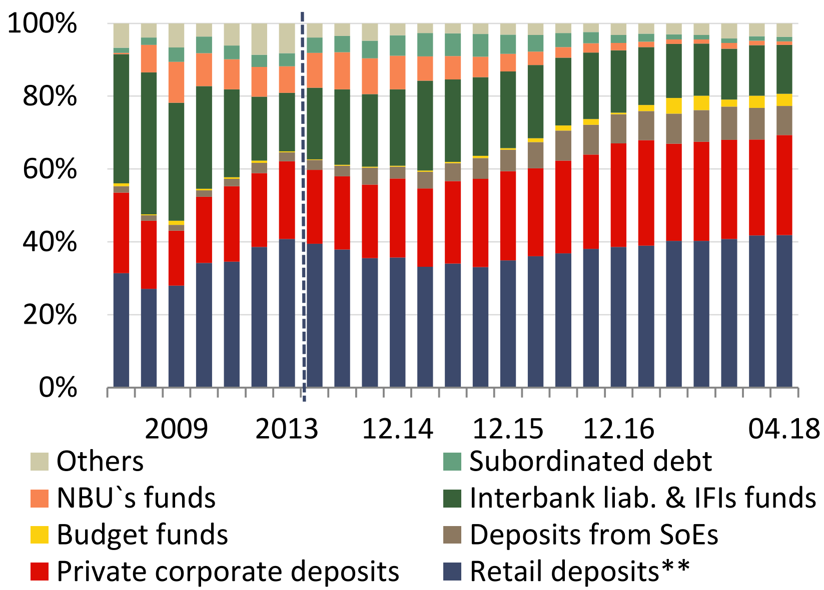
Commissioned residential buildings, millions square meters



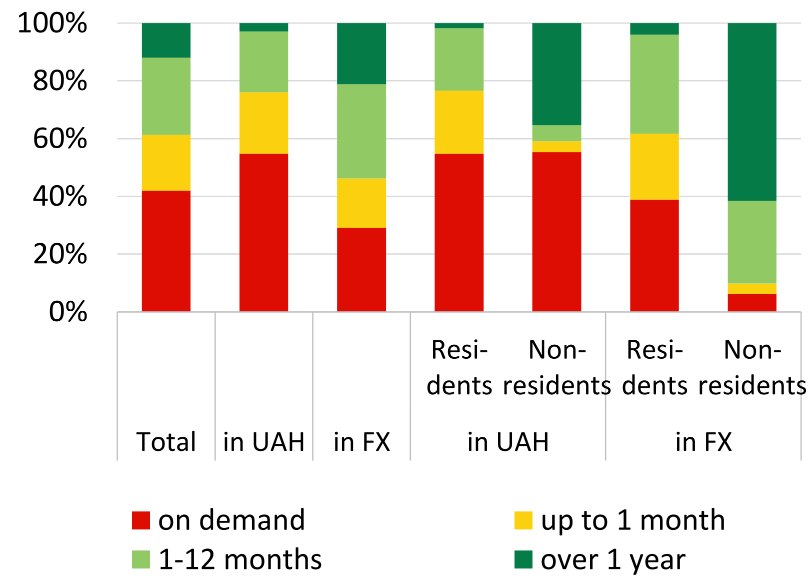
- The supply of new housing continues to grow (up by 13% in 2017), although this growth could slow down in the years to come.
- Last year Ukraine outperformed the EU in terms of the number of newly built flats per 1,000 people (2.9 compared to 2.8).
- Prices were virtually flat in the U.S. dollar equivalent (up by 1% yoy in the primary market).

Short maturities of bank liabilities are increasing liquidity risk

Banks' liabilities by instruments*



Liabilities in terms of maturity as of 1 May 2018



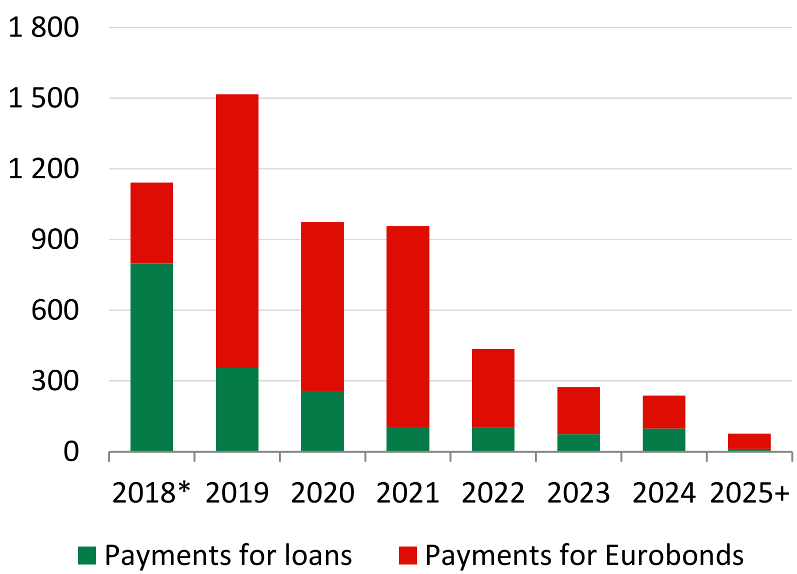
**including accrued interest **including certificates of deposit*

Source: NBU

- Hryvnia deposits were up by 15% yoy.
- The percentage of deposits in total liabilities has stood at 80% since H2 2017.
- Banks' heaver reliance on domestic funding had a negative impact on maturities of liabilities. Maturities up to one month account for 61.3% (up by 2.7 pp yoy), with over half of hryvnia deposits being demand deposits.

The banks' external debt is small

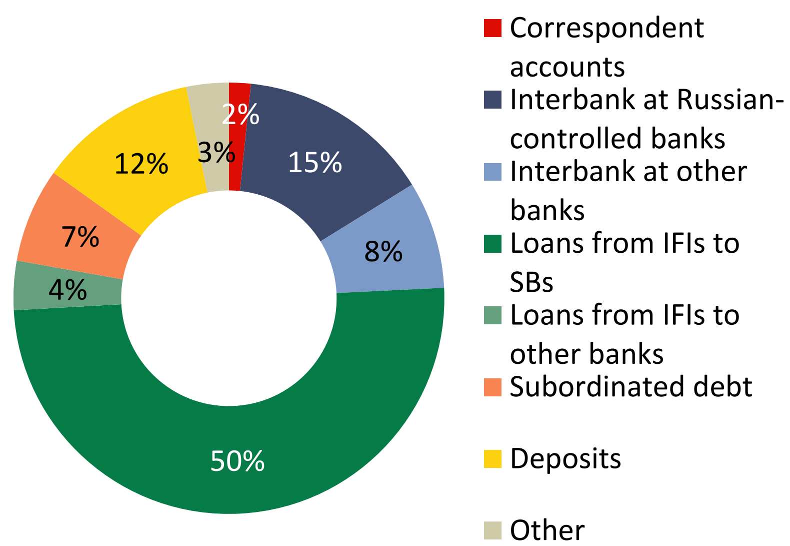
Scheduled repayments of banks' external debt, USD million



** repayments to be made in Q2 – Q4 2018*

Source: NBU

External funding* composition as of 1 May 2018

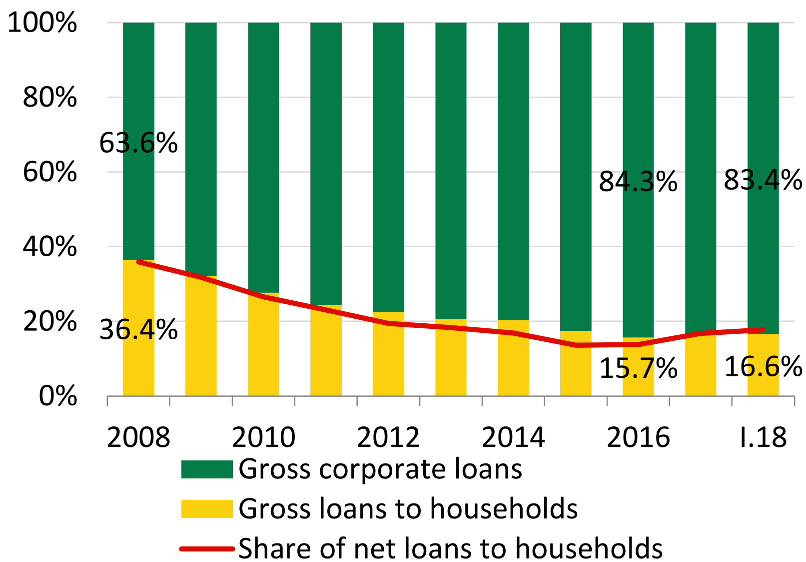


** Debt to non-residents*

- The banks' gross external debt was shrinking by one third every year for three years running, totaling UAH 6.2 billion in late 2017.
- Long-term loans from international financial institutions to the state-owned banks account now for over half of the debt, with another 14% of total debt being an interbank loan by a Russian-owned bank.
- Significant repayments are scheduled for the next three years, with the bulk falling due in 2019.

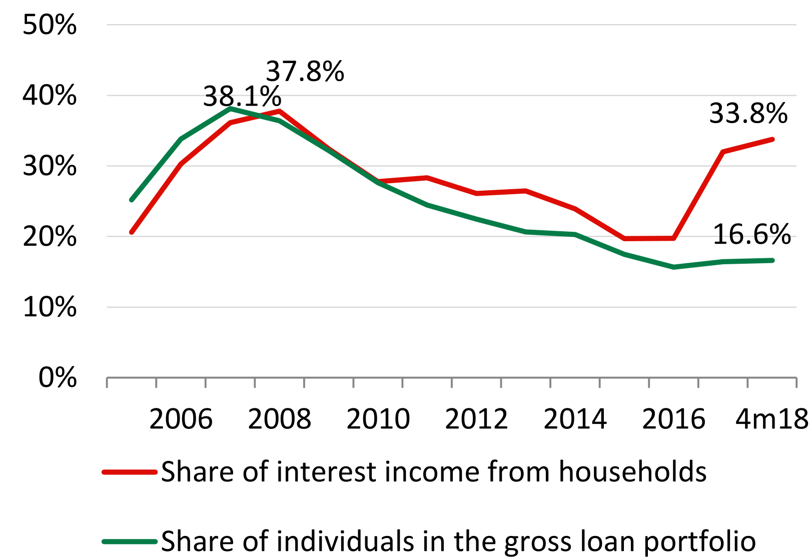
Retail loans are twice as profitable as corporate loans

The share of retail loans in the total loan portfolio



** data for last 12 months including the NBU's projections*
*** including data for non-bank financial institutions*
Source: NBU

The impact of retail lending on the volume and yields of bank loan portfolios

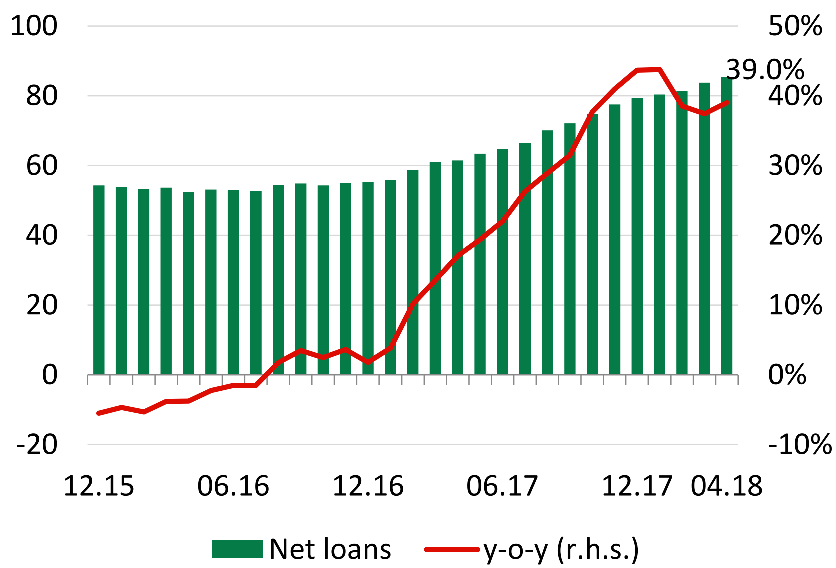


** of the banks that were solvent as of 1 April 2018*

- The share of the retail loan portfolio is 17%, while the interest income from retail loans makes up 34%. This is due to:
  - large volumes of new performing loans
  - the significantly higher yields of retail loans.
- The banks' interest income from corporate loans have declined on the back of:
  - a large number of restructured loans with lower interest rates
  - a deterioration in the loan portfolio quality.

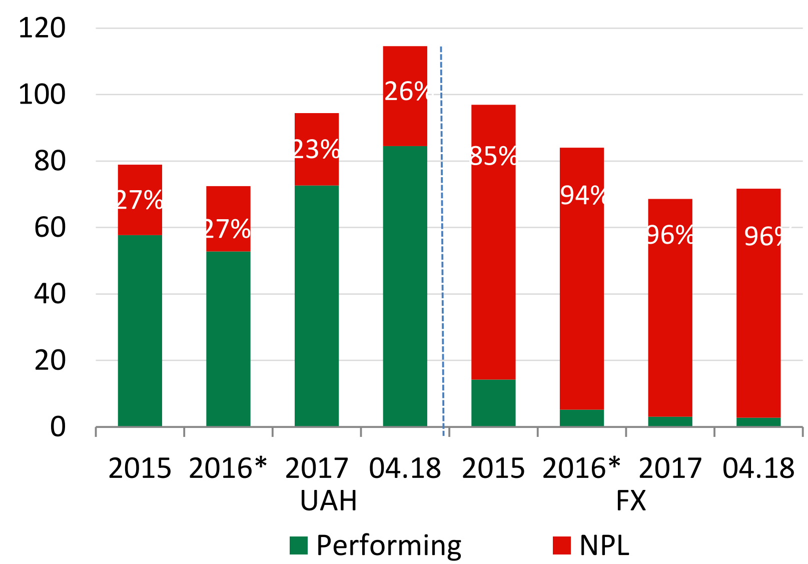
Only hryvnia consumer lending is surging

Net hryvnia retail loans, UAH billion*



** of the banks that were solvent as of 1 April 2018*
Source: NBU

Retail loans, UAH billion*

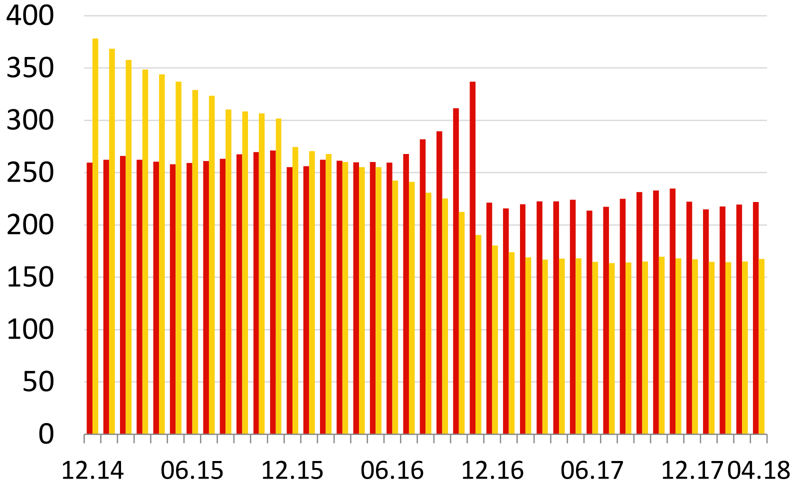


** Of all reporting banks.*
*** as of 1 February 2017 (the first reporting date according to the new rules for measuring credit risk).*

- Net hryvnia retail loans grew by 39% yoy in April.
- About half of all the banks continued to ramp up lending in Q1 2018.
- Overall, total retail loan portfolio grew significantly slower than the hryvnia retail loan portfolio because of large volumes of old foreign currency loans being repaid and written off.

Lending to reliable and honest borrowers is on the rise

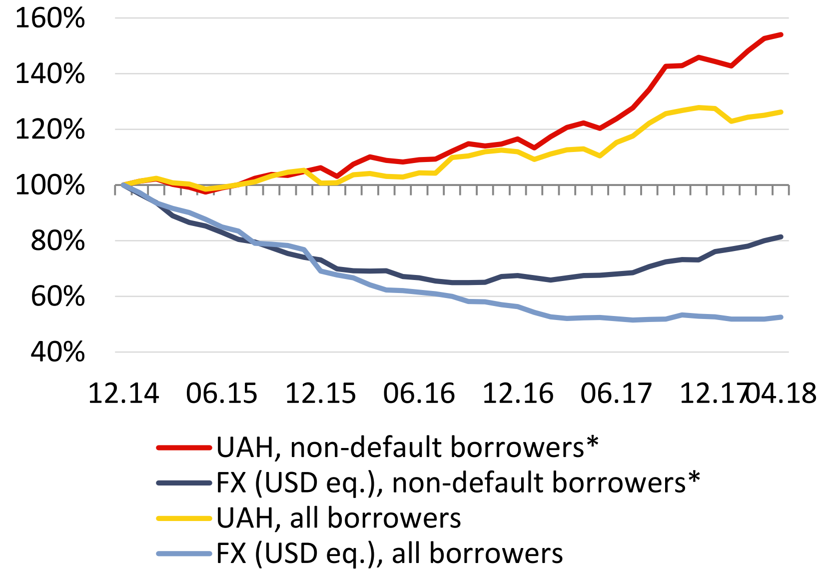
Net corporate loans*



** of the banks that were solvent by 1 April 2018*

Source: NBU

Net corporate loans (excluding PrivatBank), 2015=100%*

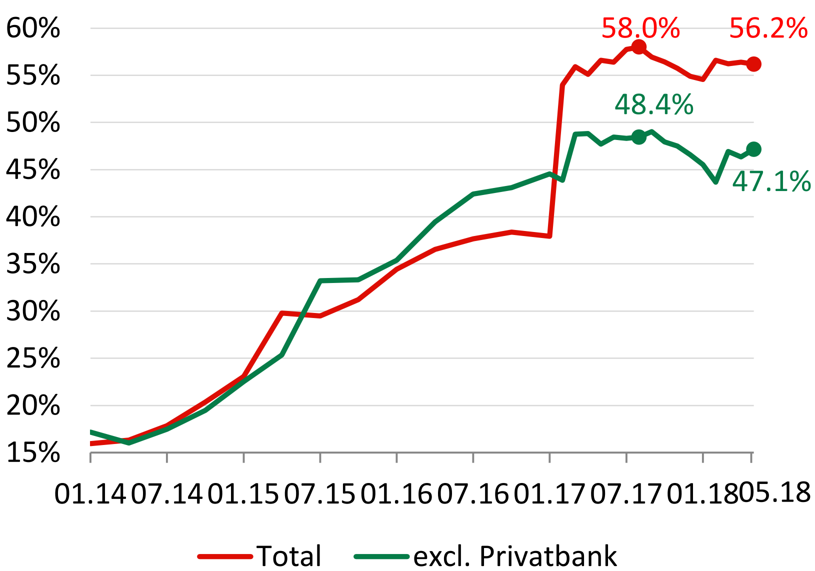


** of the banks that were solvent as of 1 April 2018*
*** loans to businesses that did not default on their obligations in 2014–2017.*
Source: NBU

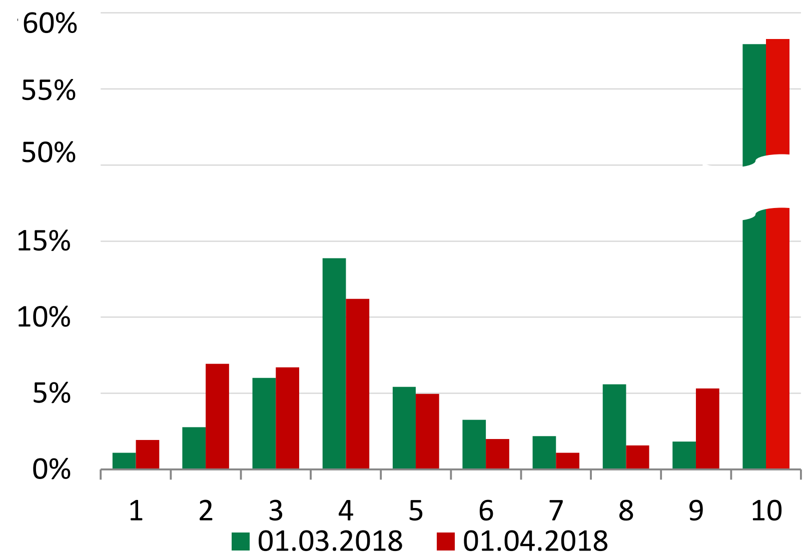
- In April, net corporate loans were practically unchanged yoy: hryvnia loans dropped by 0.4% yoy, while foreign currency loans fell by 0.3% yoy in the dollar equivalent.
- That said, growth of gross loans to reliable borrowers (that did not defaulted in previous periods) was quite dynamic (hryvnia loans were up by 26% yoy, while foreign currency ones rose by 20.8% in the dollar equivalent).

The NPL ratio is declining, although very slowly

NPL ratio



Breakdown of corporate loans by classes

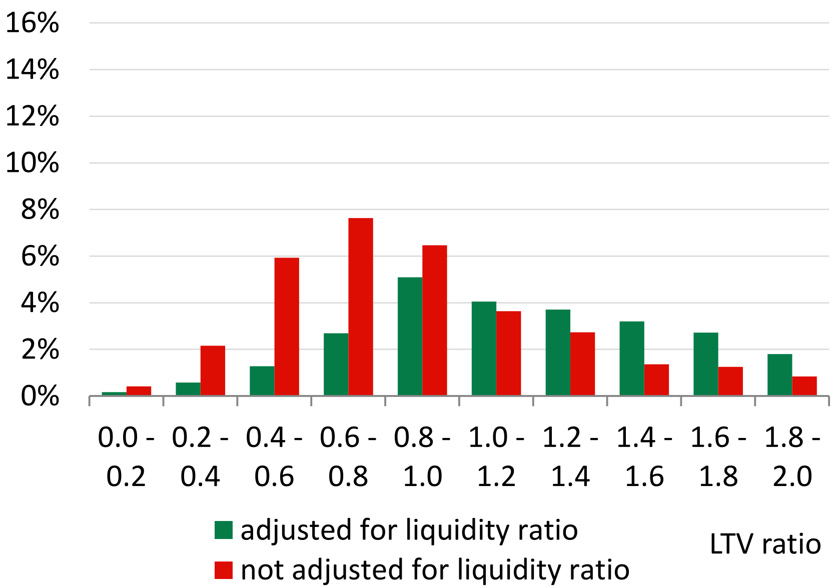


Source: NBU

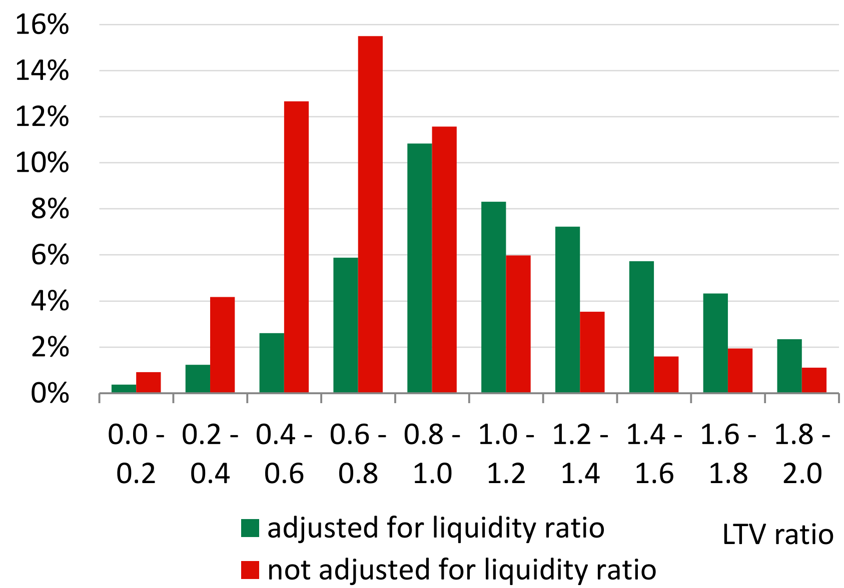
- Since the year start, the percentage of NPLs has been volatile. This was mainly attributed to statistical effects – the transfer of a portion of unpaid accrued interest income to provisions in the chart of accounts.
- Almost two-thirds of NPLs are concentrated in state-owned banks (including Privatbank) and 14,2% in Russian banks.

The collateral coverage ratio is low

Breakdown of corporate loans by LTV ratios in the range from 0 to 2



Breakdown of performing corporate loans by LTV ratios in the range from 0 to 2

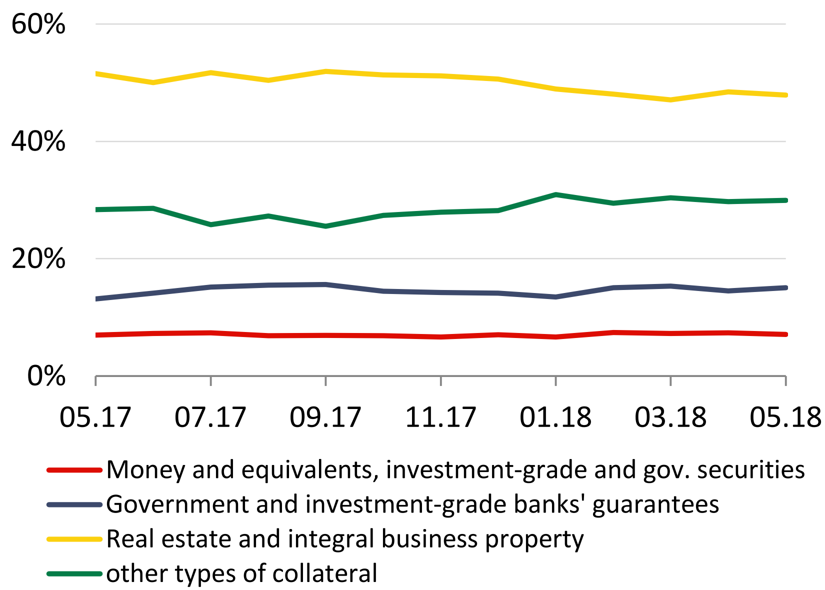


Source: NBU, as of 1 May 2018

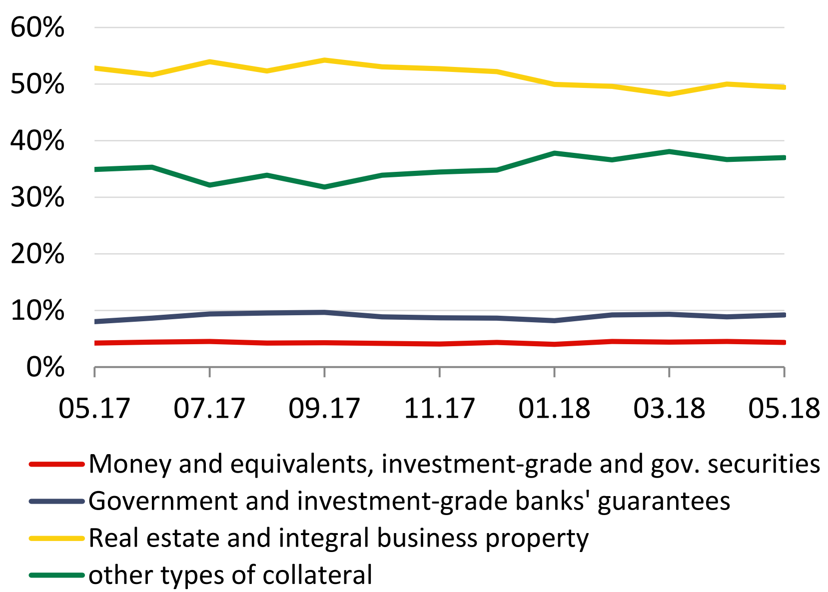
- The percentage of corporate loans with LTV ratio lower than one makes up less than 10% (adjusted for the liquidity ratio) or 22.6% (disregarding the liquidity ratio).
- For performing loans these figures are higher, at 21% and 59% respectively.

Highly liquid collateral makes comparatively small proportion of total collateral

Composition of collateral against corporate loans adjusted for liquidity haircuts



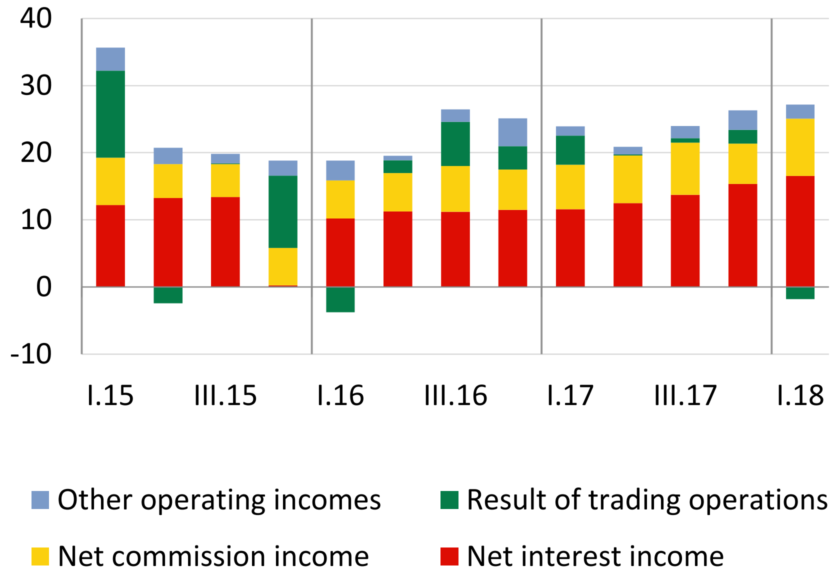
Composition of collateral against corporate loans not adjusted for liquidity haircuts



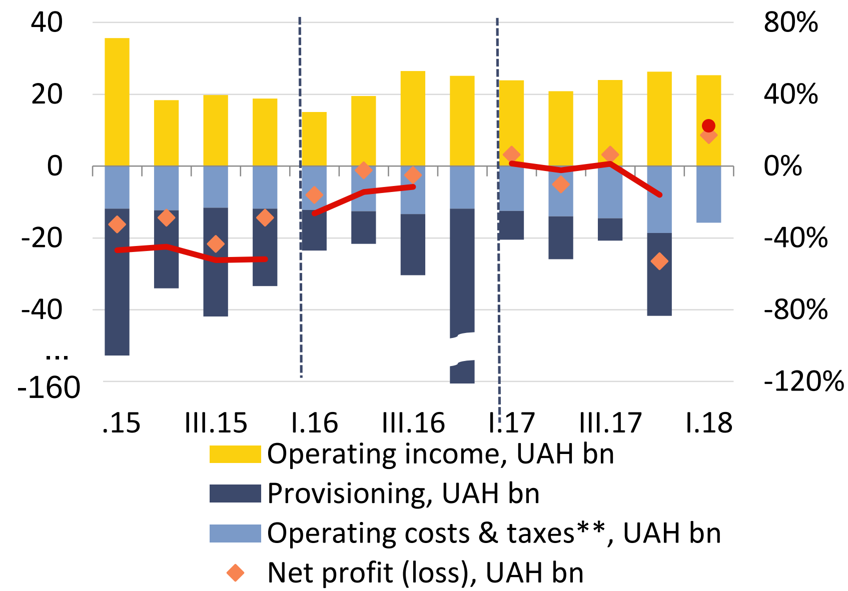
Source: NBU

- Real estate (and mostly commercial real estate, excluding land) dominates in the composition of collateral.
- The most liquid collaterals (money and equivalents, investment-grade and government securities, as well as government and investment-grade banks' guaranties) make comparatively small proportions of total collateral, 7% and 15% respectively.

Net interest and fee incomes are growing rapidly



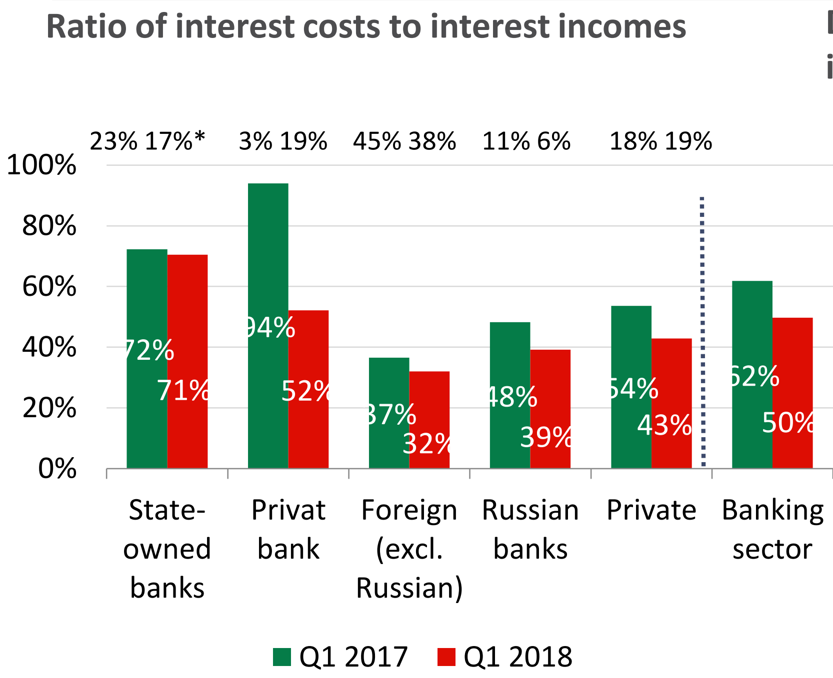
at solvent banks as of the reporting date
Source: NBU

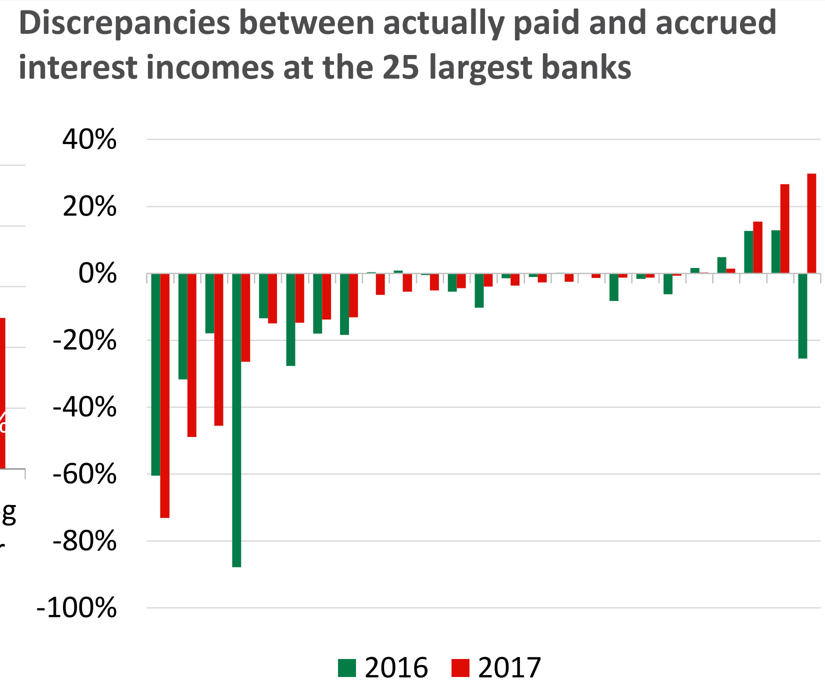


**Volumes for quarter*
***Income tax included*

- The sector's operating income grew by 6% yoy thanks to an increase in net interest income (+43% yoy) and fee income (+28.3% yoy).
- Banks became profitable after three years of recession. As the operating income grow and provisioning decreases significantly, the net sector profit is expected to become higher.

Lower funding costs underpinned interest efficiency



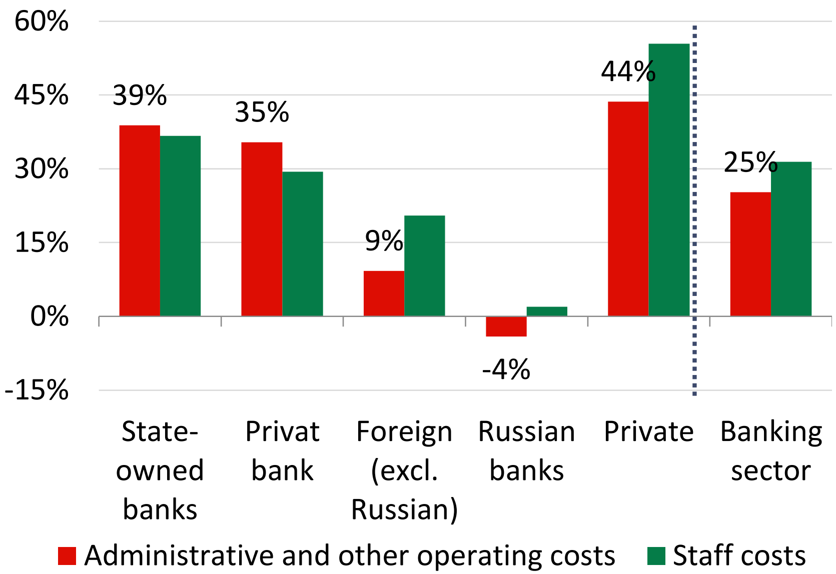


** group's share in the sector's net interest income;*
at the banks that were solvent as of 1 April 2018
Source: NBU

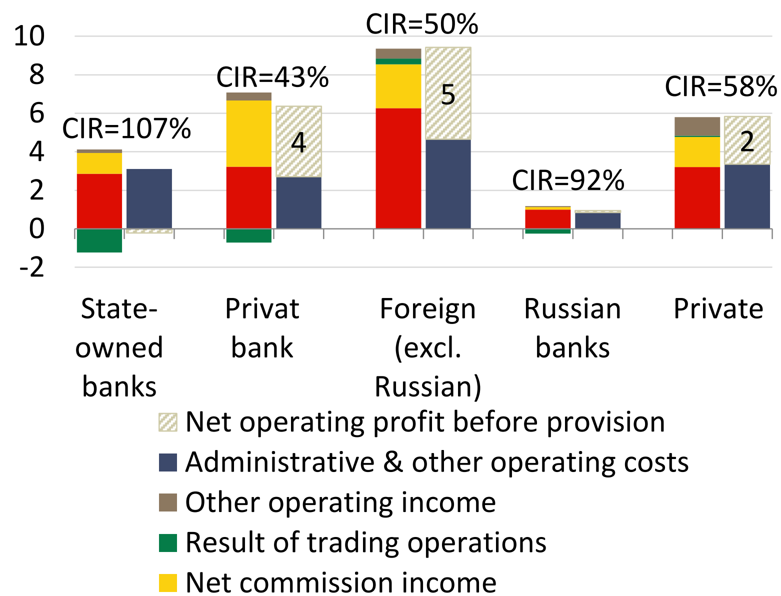
- The key driver of net interest income is lower cost of retail deposits.
- PrivatBank and foreign banks are leading in terms of efficiency.
- Large discrepancies between accrued and actually received interest income was the result of incorrect reflection of the loan portfolio quality. Banks accrue interest on loans that are not serviced.

In Q1 2018, the sector's operating performance was worse than last year

Change in administrative and other operating expenses by bank groups, Q1 2018, yoy



Components of operating income and expenses by bank groups, 1Q 2018, UAH billion

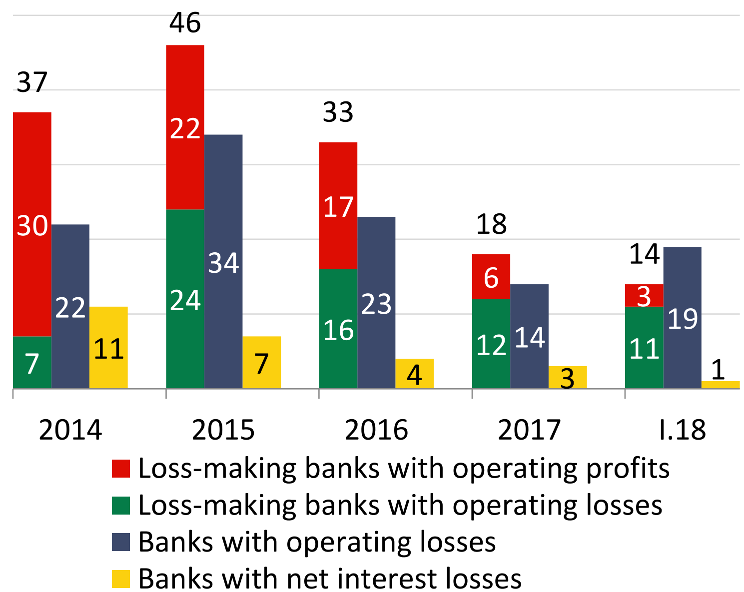


** at solvent banks as of the reporting date*
Source: NBU

- Growth in administrative expenses (+25.2% yoy) outpacing income growth (primarily at banks with large trading losses) affected the sector's operating performance.
- The sector's net operating profit before provisioning dropped by 13.3% yoy, to UAH 10.8 billion.
- Cost-to-Income Ratio (CIR) was by 57.9% in Q1 2018 compared to 49.0% in Q1 2017.

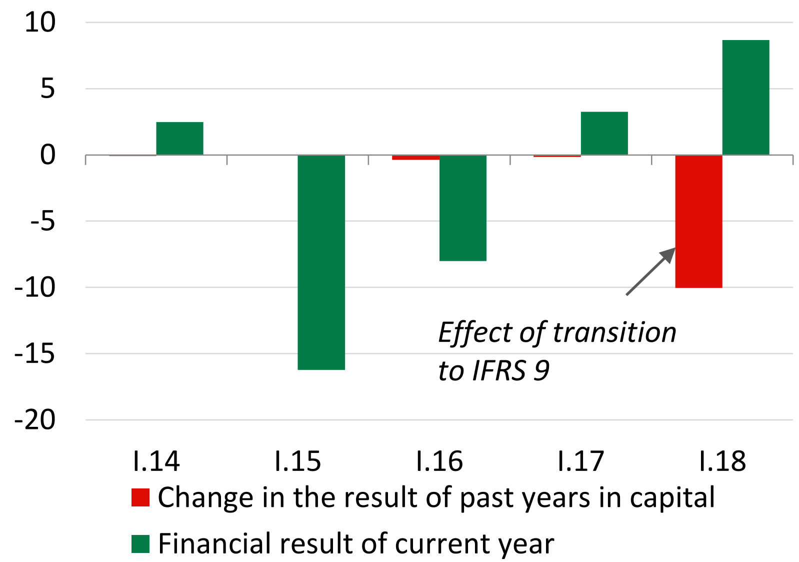
The sector’s current profit offsets the effect of the transition to IFRS 9

Distribution of loss-making banks*



**solvent banks at period-end*
Source: NBU

Impact of the transition to IFRS 9 on profit/loss of previous years



- Out of 82 banks, 19 incurred net operating expenses before provisioning (versus 14 in Q1 2017), including one state-owned bank.
- The number of loss-making banks declined from 18 to 14, of which three generated operating profit but sustained losses due to an increase in provisions.
- Adverse effect of initial implementation of IFRS 9 on banks’ capital at UAH 10 billion was offset by net earnings of Q1 (UAH 8/7 billion).

Recommendations

To public authorities:

- to expedite approval of laws that are necessary for enhancing effectiveness of the banking sector and the financial market as a whole
- to resume cooperation with the IMF and other international financial institutions.

To banks:

- to intensify resolution of non-performing loans (NPLs)
- to assess borrower credit risk appropriately
- to revise business models at banks that are persistently loss-making
- to improve management of non-core assets obtained during the crisis or sell them.

NBU's plans and intentions

- to introduce a new capital contingent convertible instrument
- to introduce the risk management system at banks
- to launch review of banks' internal credit risk rules
- to publish results of the annual assessment of banks' resilience
- to improve bank registration and licensing procedures.

Special Focus

Related Party Lending: Never Again

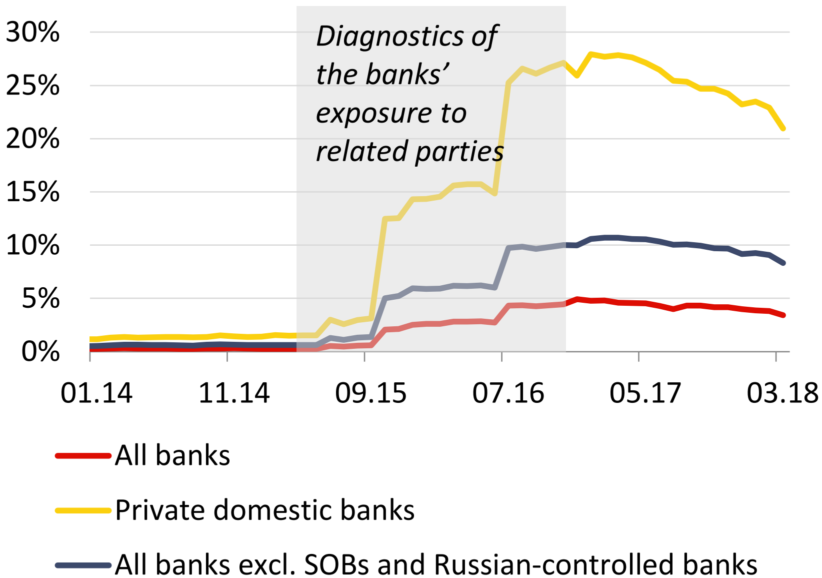
Related party lending is the source of financial instability

- Related party (RP) lending was a common practice for Ukrainian banks for a long time. Insufficient control and regulation of these transactions caused accumulation of major risks that materialized during the crisis of 2014–2015.
- The diagnostic study of banks' RP exposures found that banks deliberately underestimated the share of such loans by dozens of times. Before the diagnostic study the banks recognized UAH 1.5 billion of RP loans, after the study - UAH 31.9 billion, failed banks excluded.
- The issue of RP loans is most burning for private banks with Ukrainian capital. As of the end of 2016, RP loans accounted for 27% of said banks' corporate loan portfolio.
- Of 99 diagnosed banks, 44 had exceeded RP loans limits (over 25% of the regulatory capital). Thirteen such banks have already gone bankrupt. At present, 21 banks exceed RP lending ratio and currently implement the RP lending reduction program.
- The total RP loans at bankrupt banks exceeded UAH 83 billion. These loans remained non-performing and have caused substantial losses. Repayments to depositors of these banks from public funds amounted to UAH 38 billion. The rest of the amount was borne as direct losses by businesses and households.
- Related companies usually have poor financial standing in contrast to market borrowers or are non-operating companies. In such a way the company owners tried to conceal real beneficiaries and to obstruct collection of debt.
- Since the beginning of 2017, the share of RP loans at solvent banks decreased by UAH 8.5 billion or by 26%. In fact, the issue of RP lending is no longer critical anymore for the banking system. However risks are considerable and require constant and thorough monitoring.

PrivatBank was excluded from this analysis for better representativeness of trends.

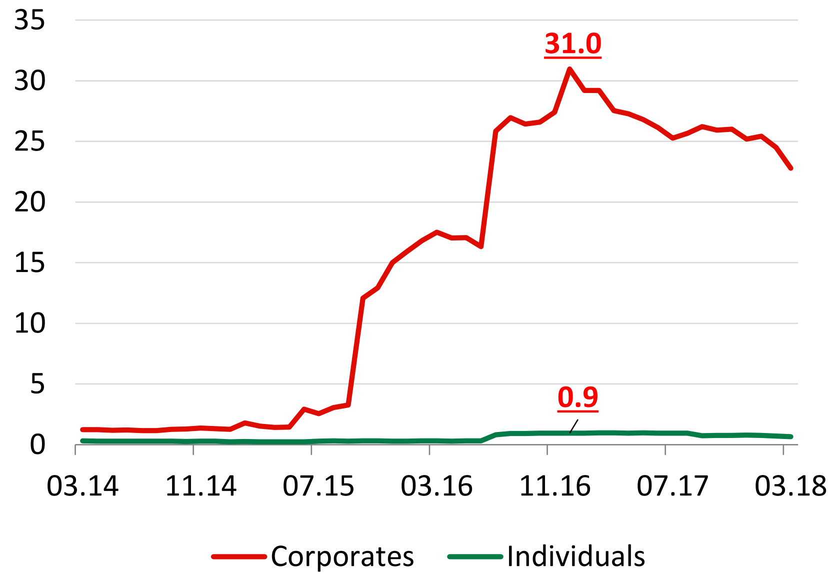
RP lending: Issue for private banks with Ukrainian capital

Share of gross RP loans in the corporate loan portfolio*



** Solvent banks as of 1 April 2018 (excluding PrivatBank).*
Source: NBU

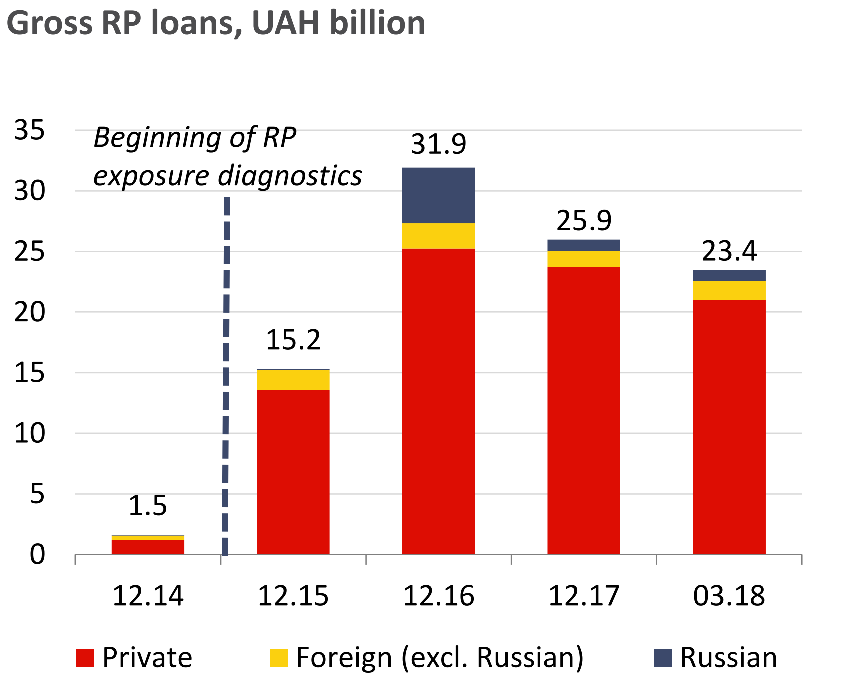
Gross loans to RPs recognized by banks, UAH billion*

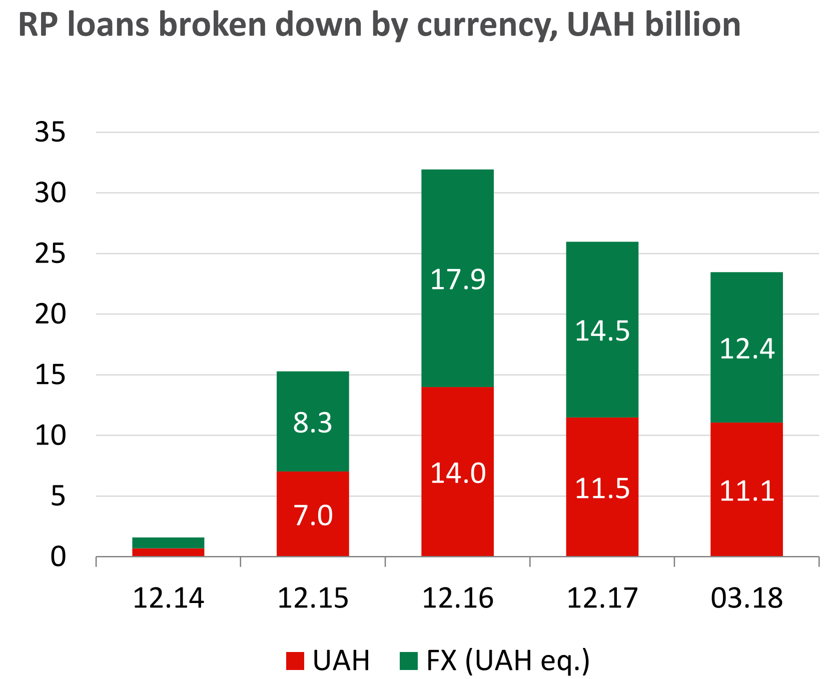


** Solvent banks as of 1 April 2018 (excluding state-owned banks and PrivatBank).*

- The highest concentration of RP loans was found in private banks with Ukrainian capital i.e. 27% of all corporate loans. At present, this figure is 21%.
- For other bank groups this issue is not critical. All in all, the banking system accounts for less than 5% of corporate RP loans.

For a long time banks failed to properly recognize their RPs



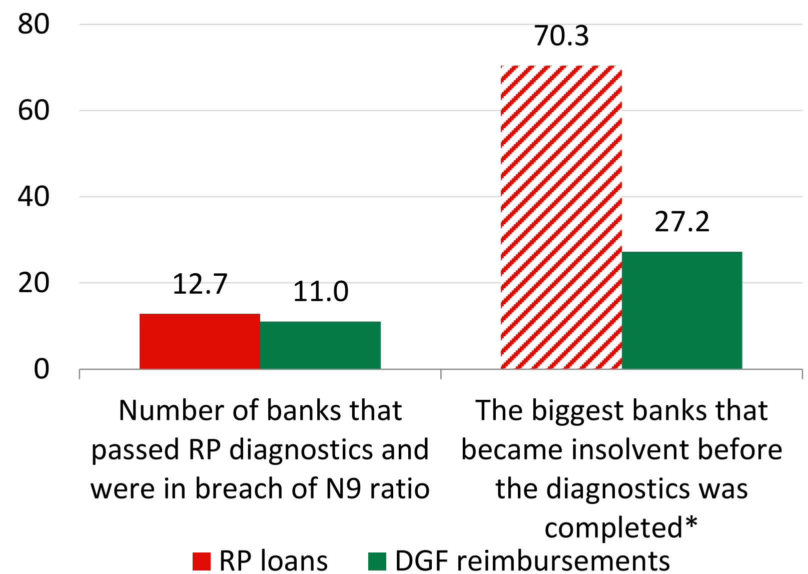


With solvent banks as of 1 April 2018 (excluding state-owned banks and PrivatBank).
Source: NBU

- At the beginning of 2015 RP loans recognized by all banks accounted for just UAH 1.5 billion.
- By the end of the diagnostic study, the end of 2016, such loans accounted for UAH 31.9 billion, excluding banks that went bankrupt before the completion of diagnostic study.
- Over a half of RP loans were issued in foreign currency.

RP lending inflicted serious losses on the economy and the budget

RP loans with insolvent banks and the DGF reimbursements, UAH billion

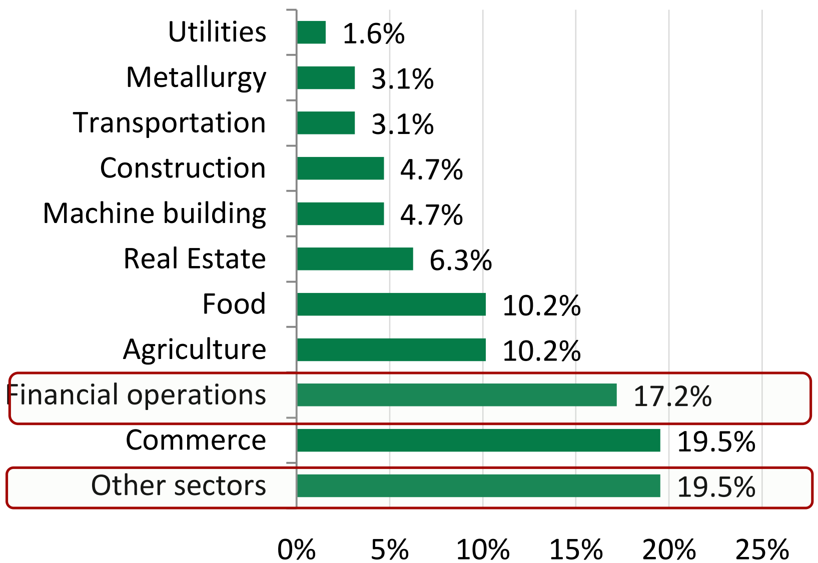


RP loans as of the date when the bank was declared insolvent
** Estimates of loans that have two or more attributes of RP.*
Source: NBU, DGF

- Total RP loans with banks that were resolved during crisis account for UAH 83 billion. RP loans comprise debts recognized by banks that underwent the diagnostic sturdy on RP operations and loans with financial institutions that went bankrupt before the diagnostic study was completed.
- Direct costs of the DGF reimbursement to depositors of those banks exceeded UAH 38 billion.
- Remaining losses, over UAH 45 billion, were incurred by households and businesses (banks' depositors).

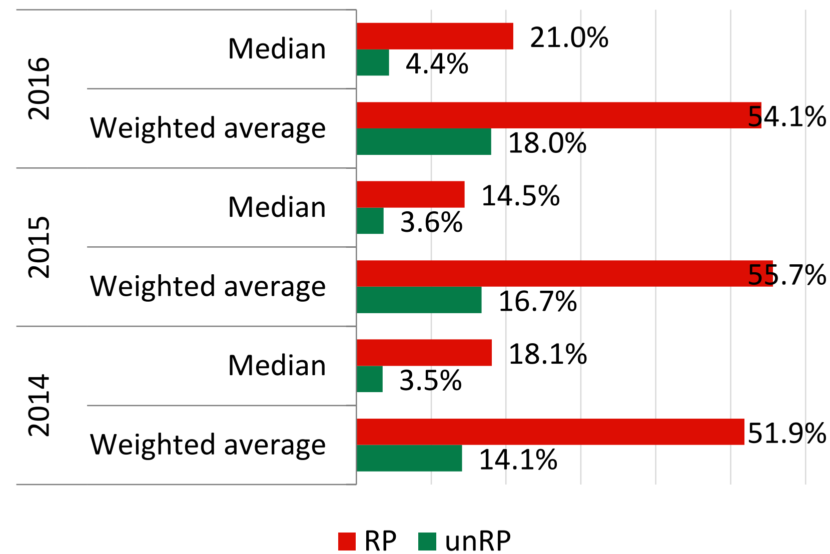
RPs of banks are mostly non-operating companies

RPs broken down by economic activities



** as of 1 March 2017*
Source: SSSU; NBU estimates.

Share of non-operating items on the balance sheet of corporate borrowers*

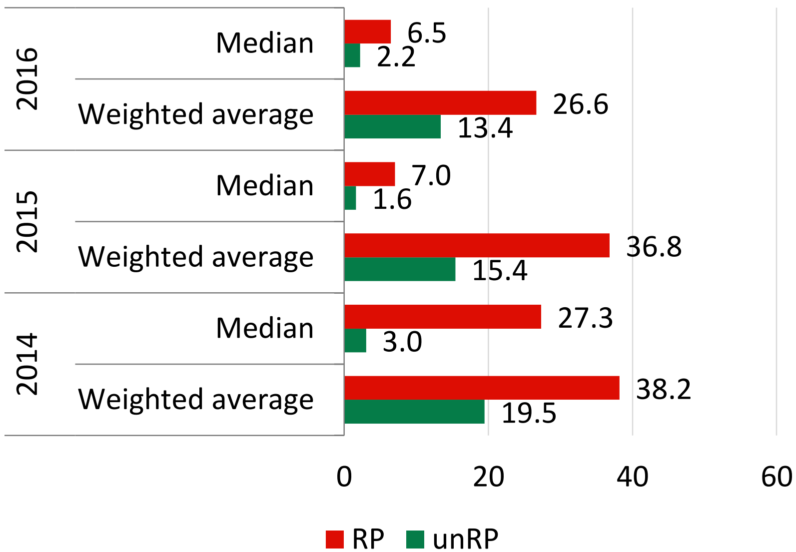


** Indicators were weighted by total loans as of 1 March 2017; the ratio of non-operating assets to the balance-sheet total. Non-operating assets include intangible assets, long-term, current and other financial investments, long-term accounts receivable, goodwill and other current accounts receivable.*
Source: NBU

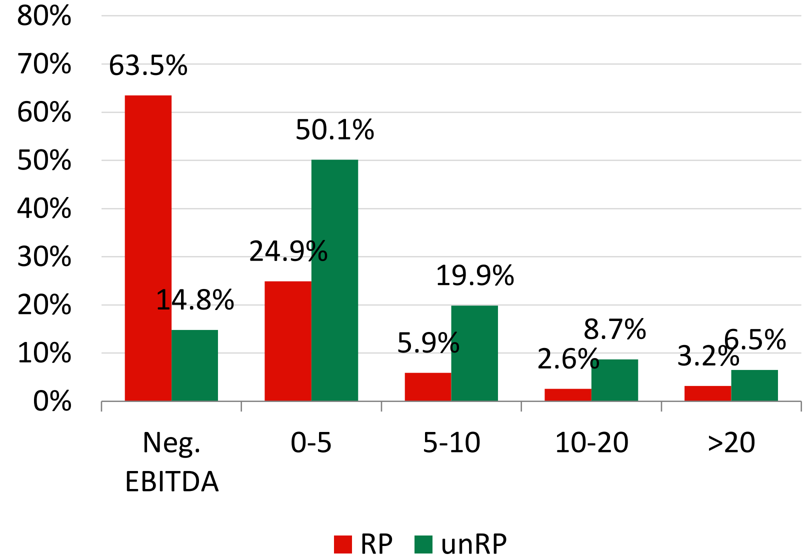
- 37% RP borrowers engage in “financial operations” and “other” economic activity. These lines of business at unRP borrowers account for 19%.
- Deliberate overstatement of the total assets of RPs is a sign of no operating activity.

RPs have worse financial standing than non-RP borrowers

Net debt to EBITDA of corporate borrowers*



Breakdown of Net Debt/EBITDA of corporate borrowers*

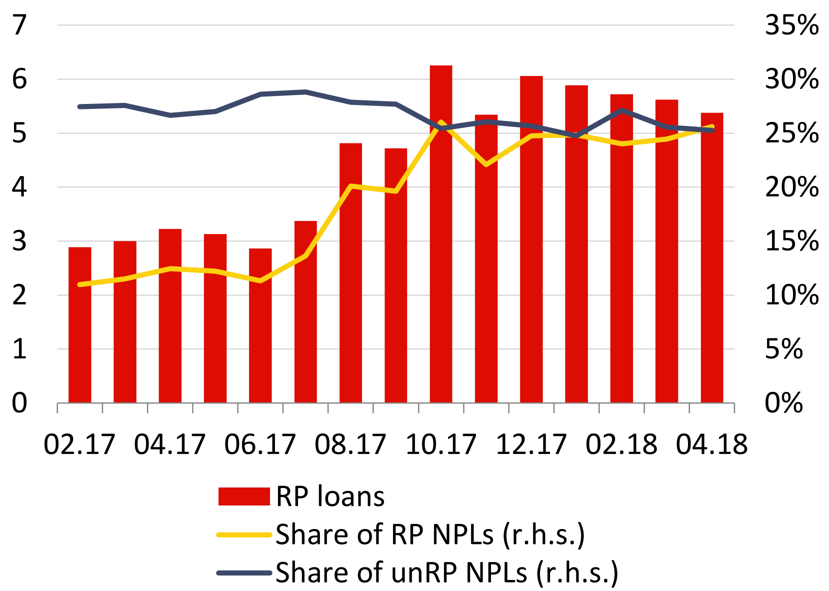


** Indicators were weighted by total loans as of 1 March 2017.*
Source: NBU

- The ratio of net debt to EBITDA of RPs is twice as high as for non-RP borrowers.
- Companies with negative EBITDA in 2016 account for 63% of RP loans.

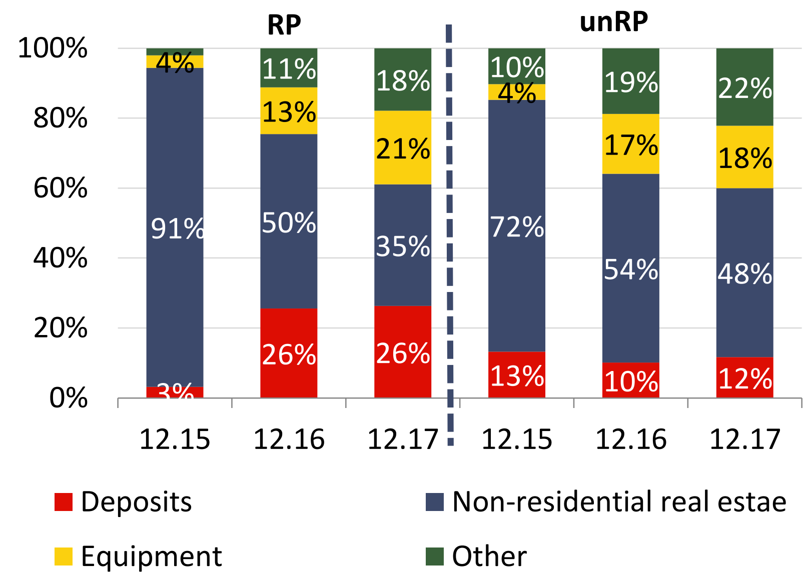
Many RPs are incapable to repay their debts due to poor financial standing

Non-performing gross RP loans, UAH billion, and shares of non-performing loans



Source: NBU

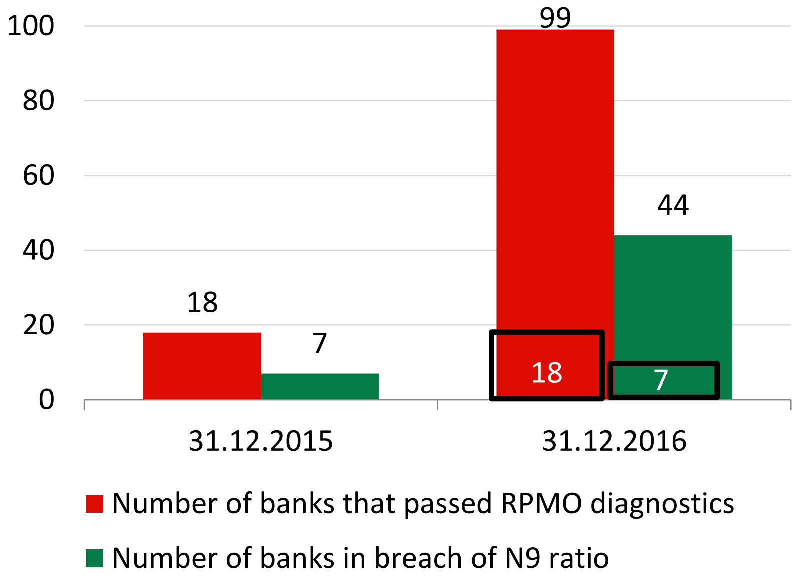
Collateral structure for RP loans



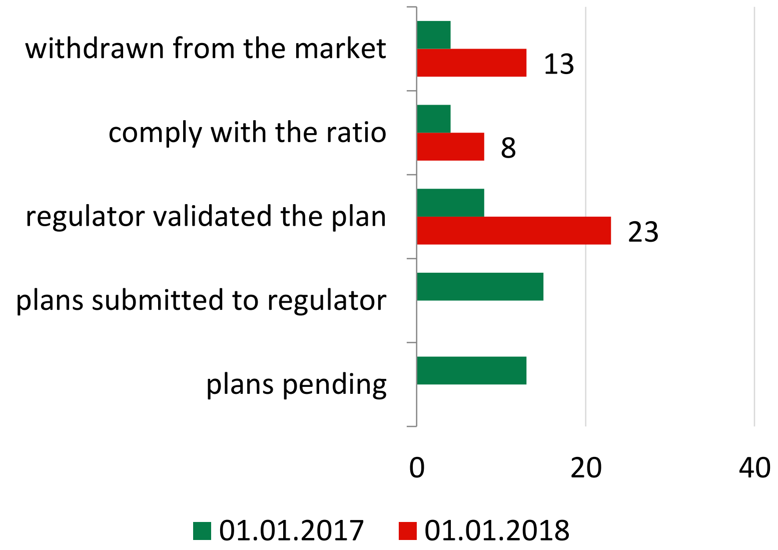
- In the last year, the share of non-performing RP loans increased from 11% to 25% and exceeded same figures for market corporate borrowers.
- The main driver for recognizing non-performing RP loans is inability of the borrower to redeem debts with their own funds when there is no reason to expect that the owner will help to repay.
- A big share of deposits in RP collateral is attributed to the reduction of RP debt by the amount of collateral for calculating N9 ratio.

At present the issue of RP lending is not critical for the system

Findings of RP exposure diagnostics



Outcomes of handling 44 banks that were not compling with N9 ratio



Source: NBU

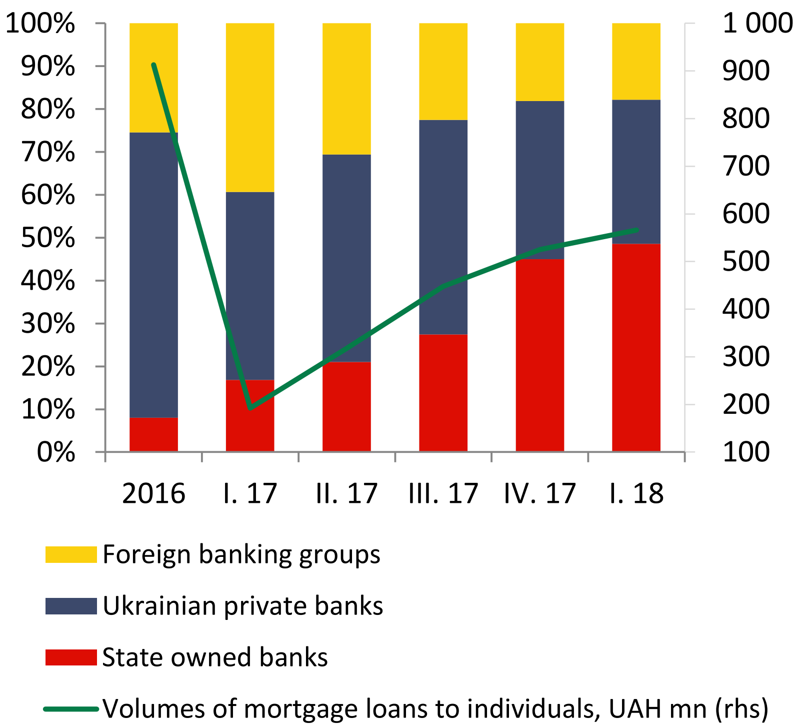
- 99 banks underwent the diagnostic study. 44 banks were found to have excessive RP loans. 8 banks managed to comply with N9 ratio, 13 banks were resolved in 2016–2017, 23 are implementing action plans for 3–5 years on winding down their RP lending. At present, 21 banks breach N9 ratio.
- The feasibility of schedules was verified, i.e. whether borrowers were capable of repaying their loans with operating income or owner’s equity.
- The NBU constantly monitors the progress of compliance with schedules and is authorized to impose corrective measures on banks.

Special Focus

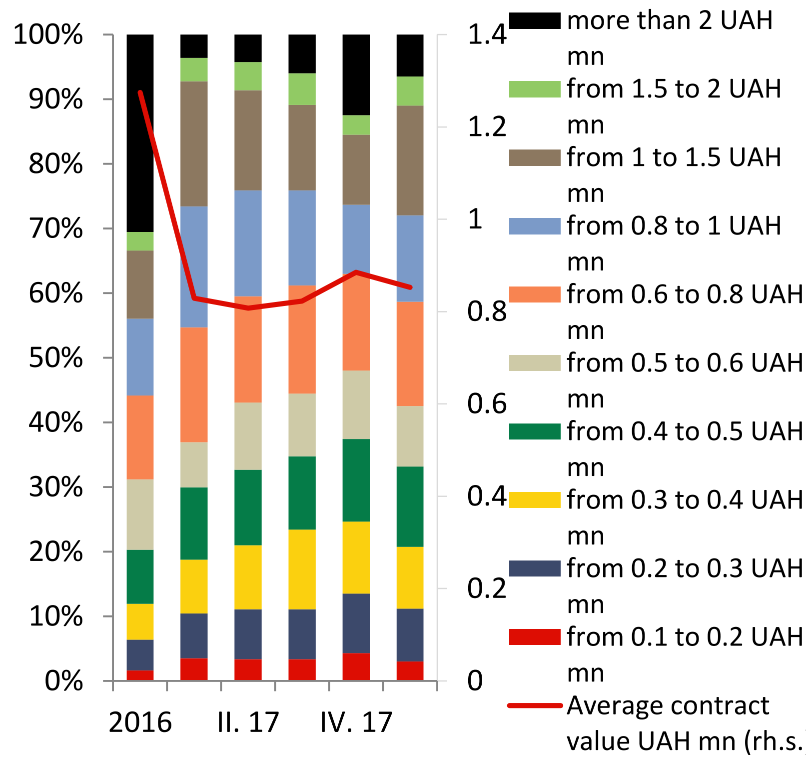
Mortgage Lending: the Growth will Continue

Bank survey on mortgage lending (1/2)

Loan distribution by bank groups*



Loan distribution by principal*

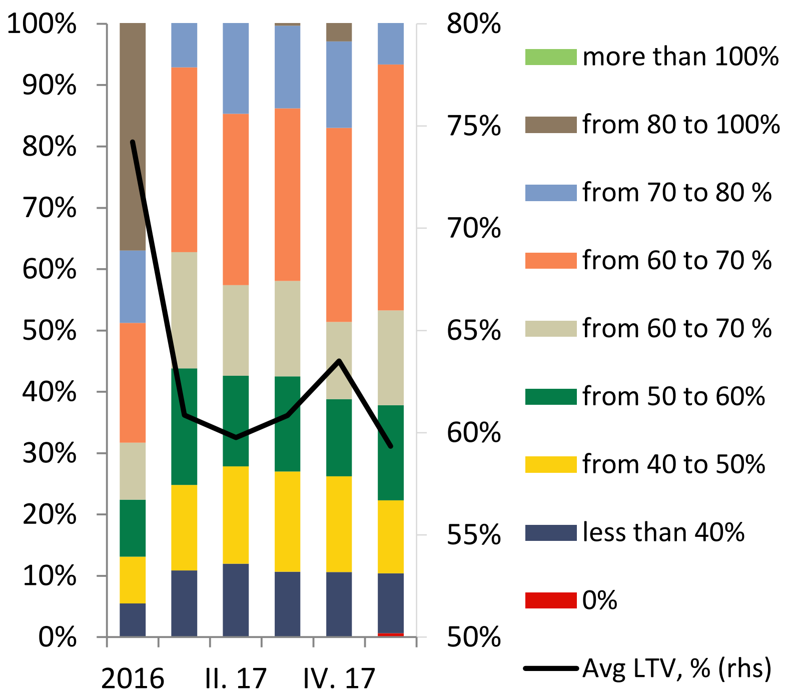


** weighted by loan issue.*
Source: banks' data

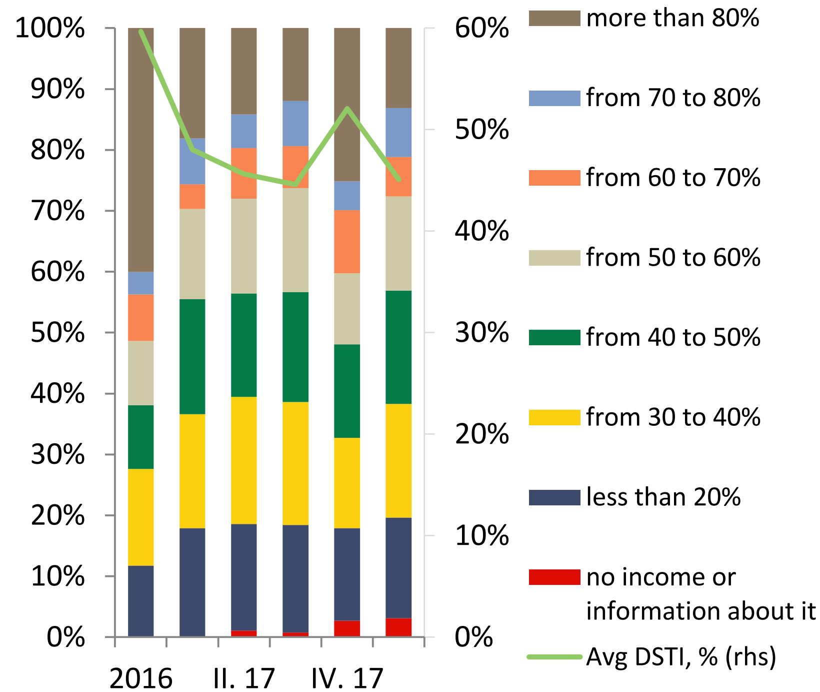
- In 2017, banks granted new mortgages to the total amount of UAH 1.48 billion (+62% yoy). In Q1 2018, this amount increased 3.9 times yoy to reach UAH 565 million.
- Five banks accounted for over 80% of the new mortgage issue.
- The average loan size was UAH 531,000 in 2017 and UAH 552,000 in Q1 2018.

Bank survey on mortgage lending (2/2)

Loan distribution by LTV*



Loan distribution by principal*



** weighted by loan issue.*
Source: banks' data

- Banks' claim to require downpayment of 20% of the price of the piece of residential real estate. The actual weighted average value of LTV was 59% (-2 pp yoy) in Q1.
- In Q1, the weighted average Debt Service-to-Income (DSTI) ratio was 45% (-3 pp yoy), whereas 18% of the total amount mortgages were issued to borrowers who would spend more than 70% of their incomes on debt servicing.