National Bank of Ukraine

Financial Stability Report

June, 2019

Key Conclusions

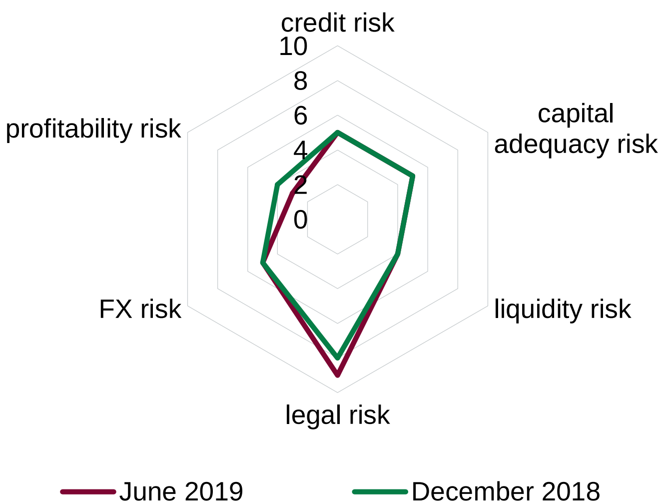
- Fundamental risks to financial stability are around all-time lows.
- The major challenge is legal risk, which has been rising because of court rulings on litigations involving PrivatBank.
- Ukraine is in the period of peak repayments on external public debt. Resumption of cooperation with the IMF is the key near-term task for authorities.
- Incomes are on the rise in the real sector. However, the rise of profitability has halted. Corporate debt burden is mostly at an acceptable level.
- Household incomes are increasing. Against the backdrop of high consumer sentiment, they secure high demand for loans and sustainable growth of deposit base.
- The share of funding from clients is rising (currently 82% of liabilities); short-term liquidity is high.
- Banks are generating more profits. A half of the sector in terms of assets is having ROE over 30%. Profitability risk will stay low over the next two years. Banks have to direct high profits to building up capital.
- State-owned banks have to adjust their dividend policies as current dividend payout obligations weaken their financial standing.
- Rapid growth of consumer lending begins to pose risk for the banking sector. Bank survey showed that banks are not conservative enough in assessment of impact of a potential crisis on quality of unsecured consumer loans.

Financial stress index is close to historic lows

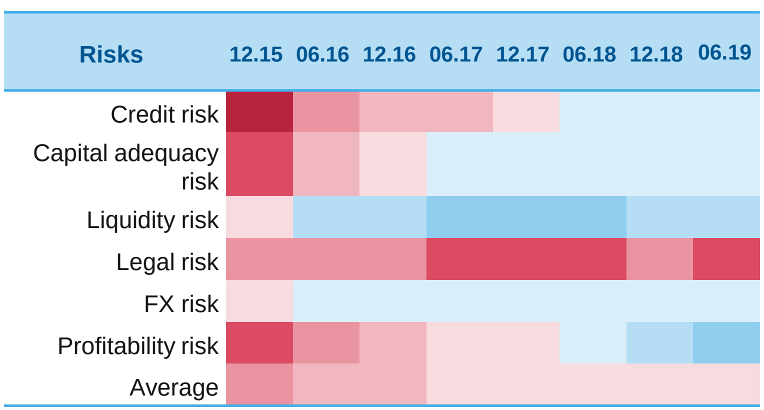
Financial Stress Index

Source: NBU.

Risk map for banking sector



Heat map



Credit risk (const). Debt burden on households is relatively low. New consumer loans are of better quality. Credit risks of corporate sector are slowly subsiding, banks lack high-quality borrowers.

Capital adequacy risk (const). Sector is adequately capitalized for an eventual crisis. Capital adequacy ratio at two state-owned banks is close to minimum requirements. Dividend payouts are raising risks.

Liquidity risk (const). The inflow of retail deposits is significant. Short-term liabilities are a medium-term risk. Banks comply with LCR requirement and therefore can meet their obligations even under stress conditions.

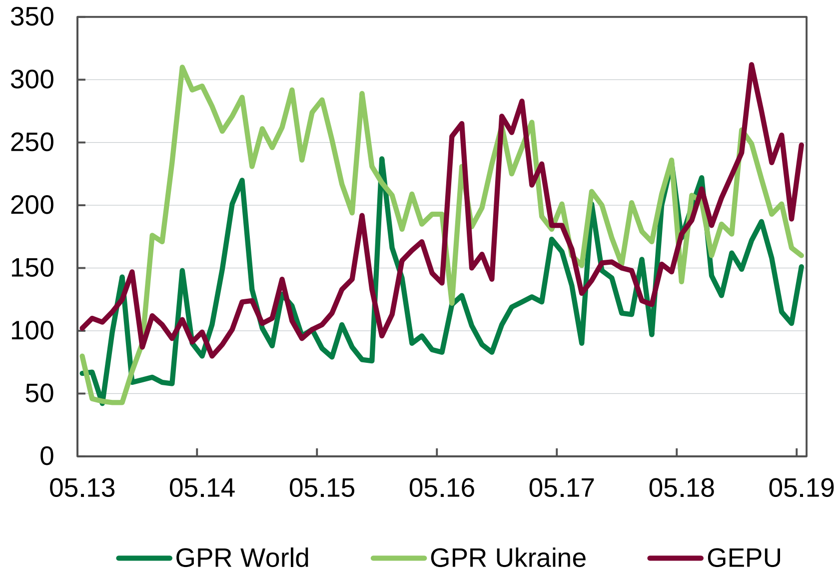
Legal risk (+1) A number of controversial court rulings on PrivatBank bail-out pose additional risks.

FX risk (const). Dollarization rate of assets and liabilities is high. However, open FX positions of banks do not pose risks to them. There will be no FX market volatility if cooperation with the IMF resumes quickly enough.

Profitability risk (-1) Sector profitability exceeds prior NBU expectations and provisioning is limited. Operating performance of state-owned banks has somewhat improved. High profitability is to persist over the next quarters.

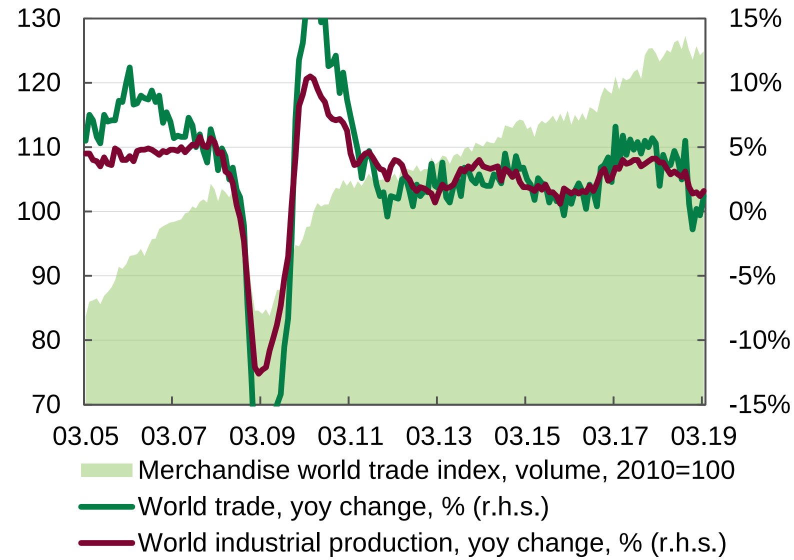
Geopolitical and geoeconomic risks are high and escalating further

Geopolitical risk index (GPR) and Global economic policy uncertainty index (GEPU)



Source: Dario Caldara and Matteo Iacoviello; Davis, Steven J.

World trade and industrial production

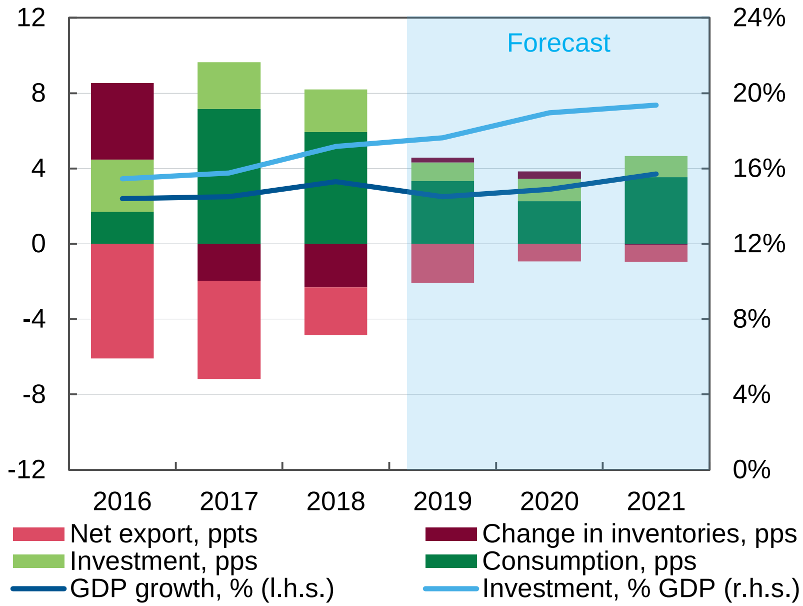


Source: Centraal Planbureau (CPB), the Netherlands.

- Most of economies in the world are slowing down, some of them sharply.
- The drivers are protectionism, which caused the world trade stagnation, and diminishing capital inflows into emerging markets.
- Economies of Ukraine's major trade partners are likely to decelerate further.

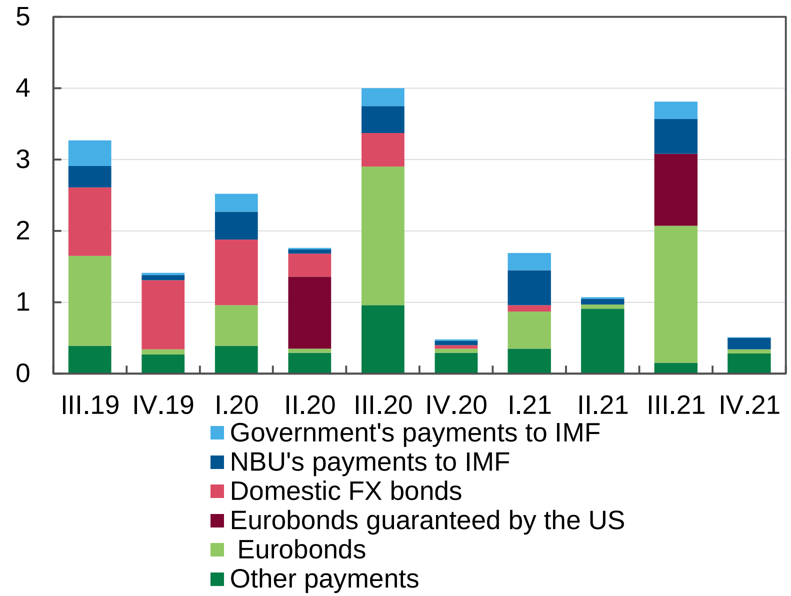
Peak repayments on external public debt is the economic challenge

GDP growth, consumption approach, pps



Sources: State Statistics Service, NBU.

Repayments* on public and publicly guaranteed FX debt, USD billion

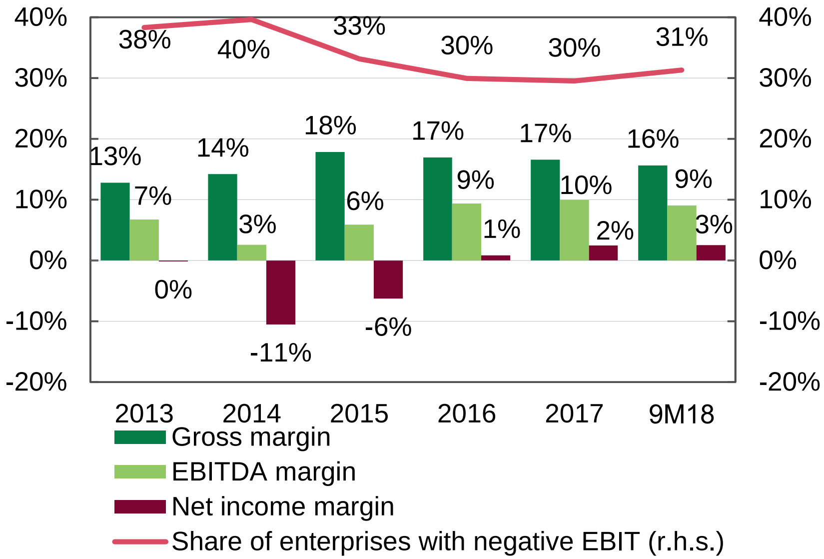


* Including interest payments.

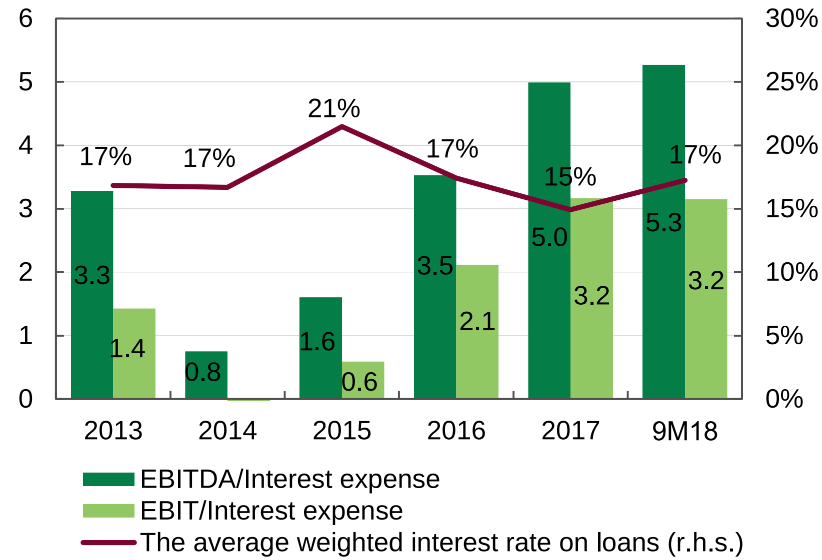
- GDP growth rate decelerated in line with expectations. Private consumption of households remains the key economic growth driver.
- Over two years and a half, the Government and the NBU have to repay FX debt of over USD 20 billion (interest included). Average quarterly repayment in the next five quarters is USD 2.6 billion.
- Stepping reforms and resuming cooperation with the IMF are the key near-term tasks.

Real sector: profit growth halted

Proportion of companies with operating losses and real sector profitability



Ratio of EBITDA and operating income to interest expense

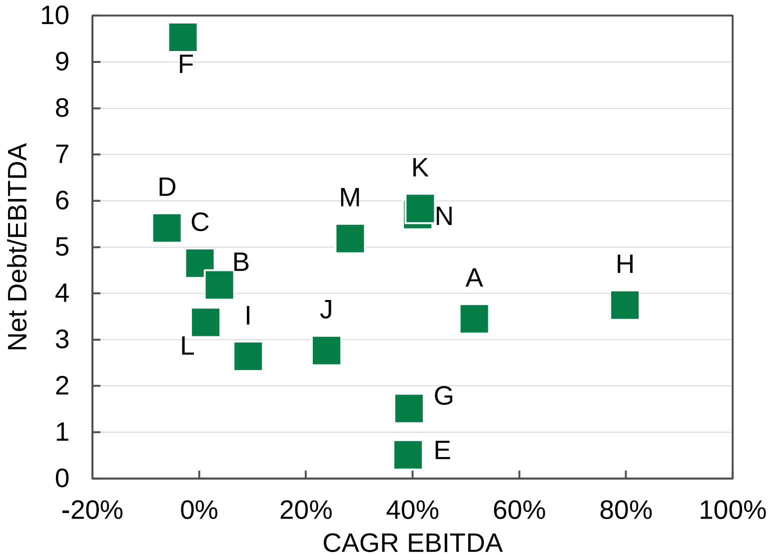


Source: SSSU, NBU estimates.

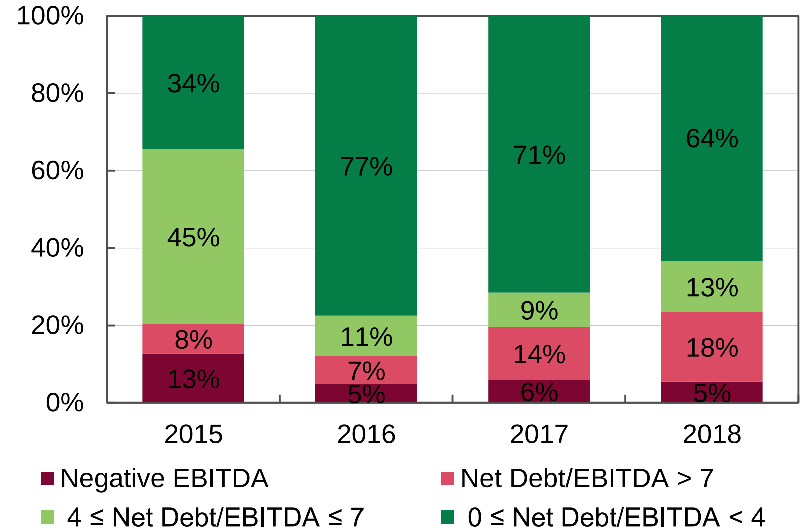
- Despite rapid income growth, the post-crisis profit surge stopped.
- Debt burden on the real sector was the same: debt-to-EBITDA ratio was 2.2. Enterprises in most industries have sufficient operating income to service their debts.
- Companies plan to borrow more for investing in fixed and working capital.

The biggest borrowers normalized their leverage

Net Debt/EBITDA* in 2018 and CAGR EBITDA for 2015-2018 by industries**



Breakdown of large exposures by debt burden (Net Debt/EBITDA)



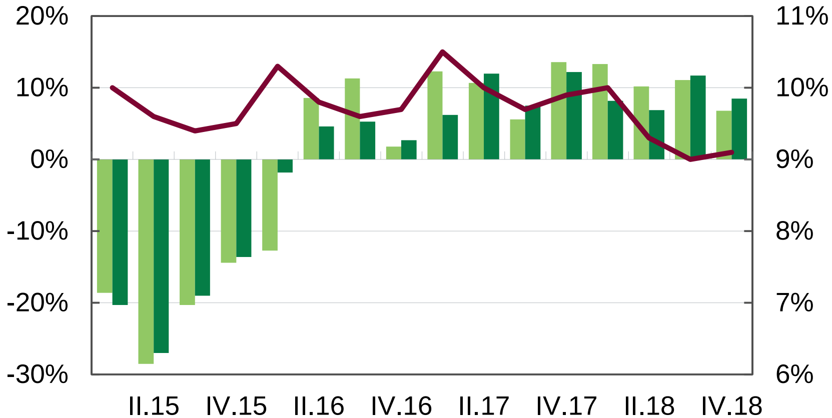
*Indicators Net Debt to EBITDA were weighted by loan amounts as of 01 Jan 2019
**CAGR – Compound Annual Growth Rate
Source: bank's data, NBU estimates.

Sectors: A – agriculture, B – growing grain crop, C – food production, D – oil and animal fats production, E – mining, F – machine building, G – power generation, H – metallurgy, I – transportation, J – production of construction materials, K – renewable energy, L – fuel wholesale, M – commerce, N – chemical industry

- Debt burden on real sector borrowers is mostly at acceptable levels except for chemical industry, machine building, renewable energy and oilseed, and animal fat production.
- Renewable energy is in a special focus. Banks eagerly lend to companies in the sector, although their solvency depends on administratively set tariffs.

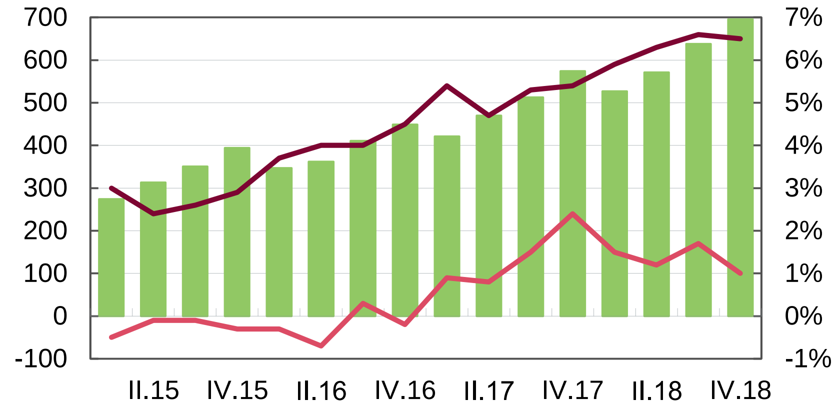
Rates of household income growth are high but decelerating

Change in household real disposable income, consumer expenditures and unemployment rate



Ratio in % to economically active population of working age.
Source: SSSU, NBU estimates.

Effect of consumer lending* on household consumption

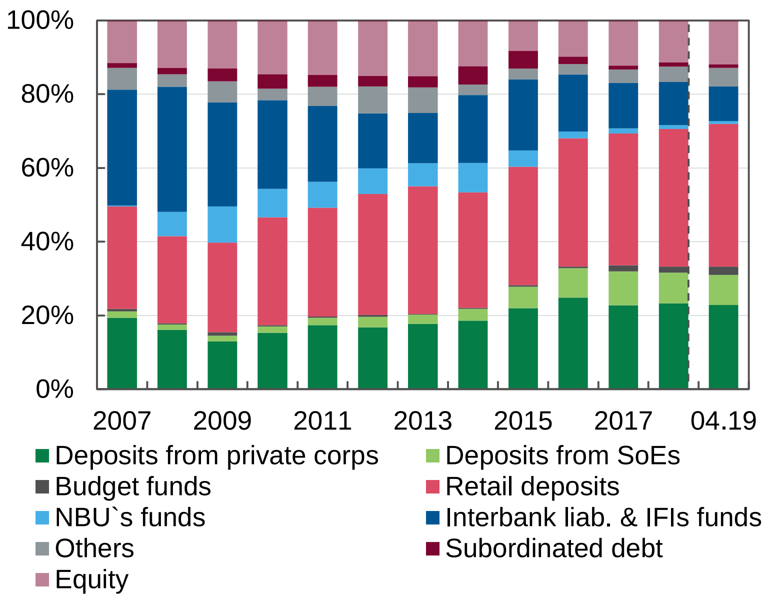


* Gross consumer loans of solvent banks.

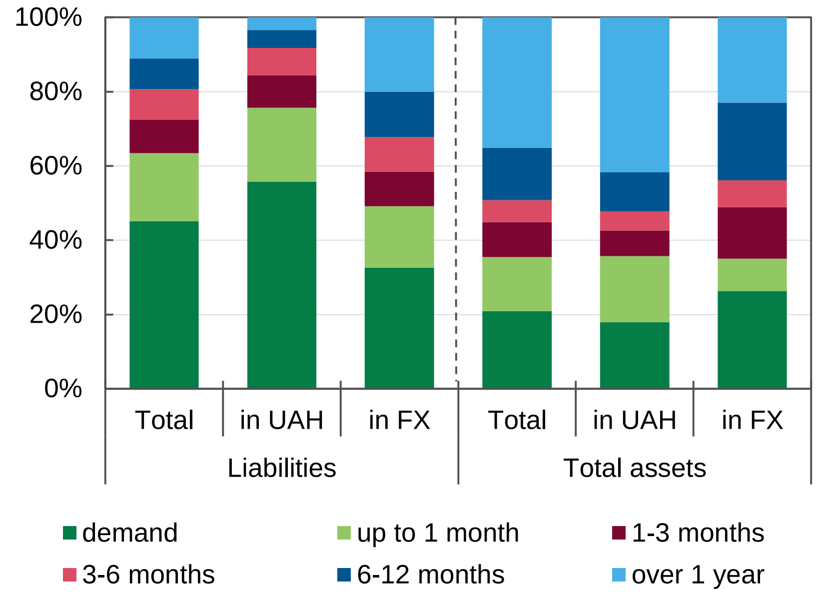
- In 2018, real disposable income of households increased by 9.9% (-0.6 pps vs 2017).
- Domestic wages (in real and public sectors) drive the growth.
- Despite of booming consumer lending, debt burden on households relative to incomes and GDP stays unchanged at all-time lows.
- Households are to remain net creditor of the banking sector for a long time.

Banks rely on domestic funding

Banks' capital and liabilities by instrument



Total assets and liabilities of banks by maturity as of 1 May 2019

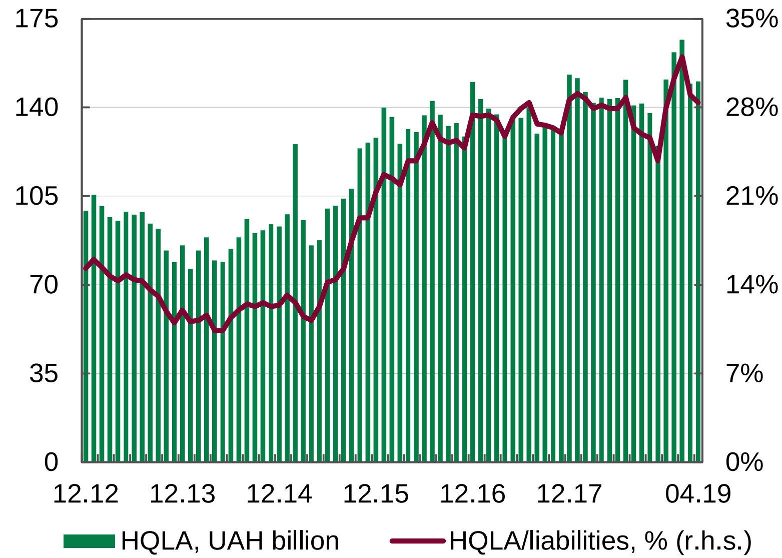


Source: NBU.

- Corporate and retail deposits, and budget funds make 82% of total banking sector liabilities. This is the highest reading in over a decade.
- Financial standing of state-owned monopolies has improved, liquidity of local budgets has increased: their funds combined make 11% of banks' liabilities.
- Households deposits in hryvnia are on the rise: +20.5% yoy for demand deposits, although term deposits increased by only 8.5% yoy.

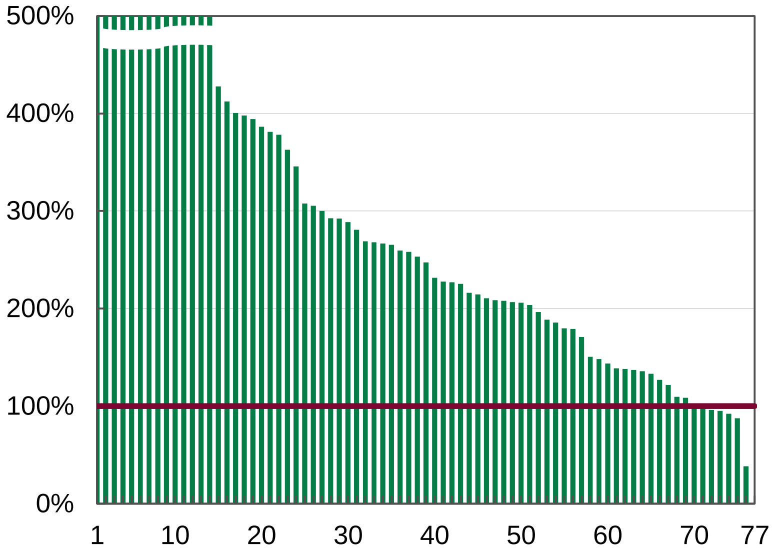
Short-term liquidity of banks is high

High Quality Liquid Assets (HQLA) in non-state banks



Includes T-bills, deposit certificates of NBU, cash, correspondent accounts with the NBU (except for required reserves) and correspondent accounts at foreign banks with an investment grade.
Source: NBU.

Compliance with LCR * in all currencies as of 1 May 2019

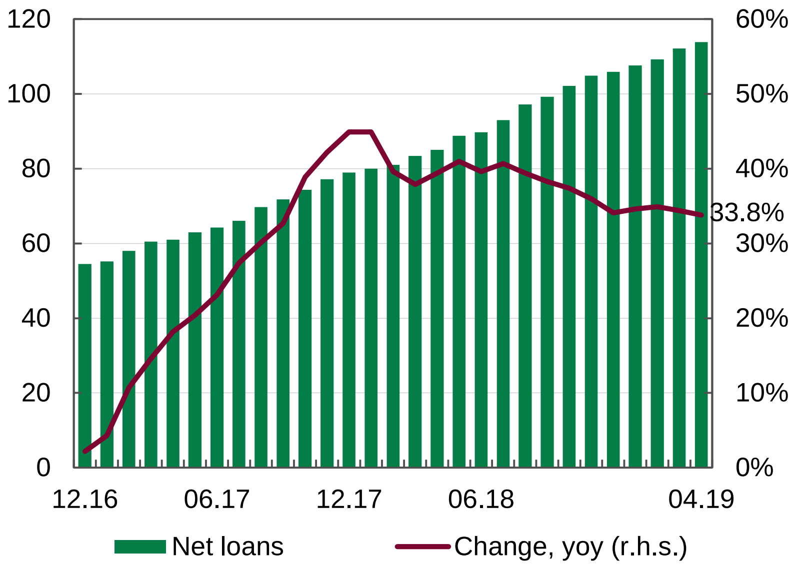


100% is the minimum required LCR, which banks have to comply with since December 2019

- Introduction of LCR has significantly boosted the HQLA. As of end-April, the HQLA covered 28% of liabilities at private banks.
- 57% of financial institutions by net assets have LCR of over 200%.

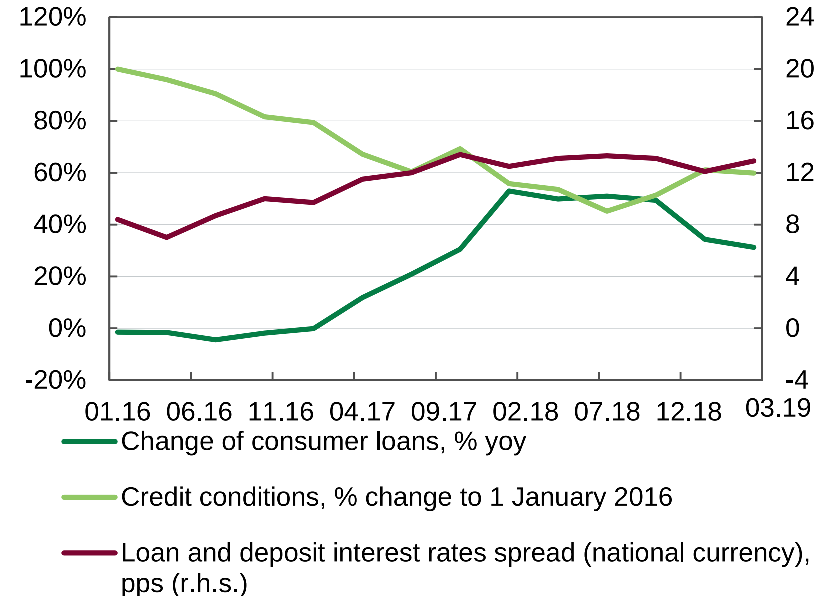
Steady growth of consumer lending is to persist

Net loans to households in UAH, billion UAH



* In solvent banks as of 01.05.2018.
Source: NBU.

Credit conditions and consumer loans growth rate



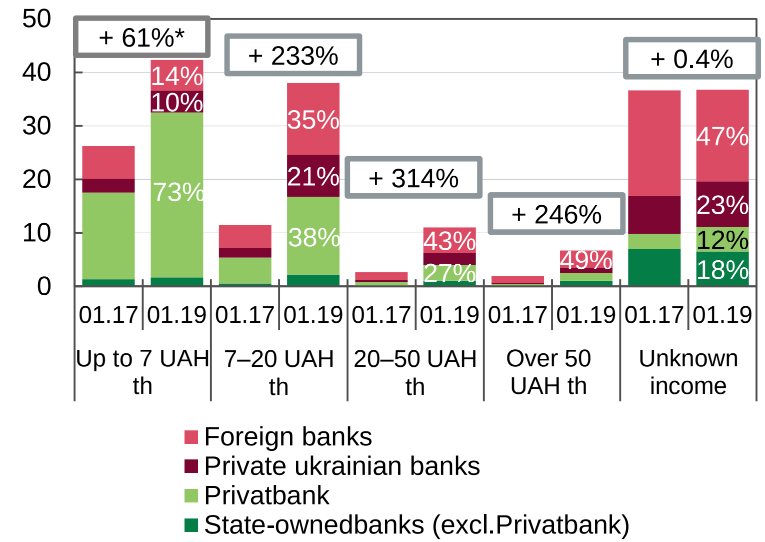
* The line represent the cumulative change in the balance of responses on question «How did the standards for approval of retail loan applications change within the past quarter?» from The Ukrainian Bank Lending Survey.

Source: NBU.

- Growth rates stick high at over 30% yoy.
- Demand for loans stays high due to rapid growth of household income.
- According to Lending Survey, banks significantly relaxed credit conditions in the aftermath of the crisis.

Banks eagerly lend to low-income households

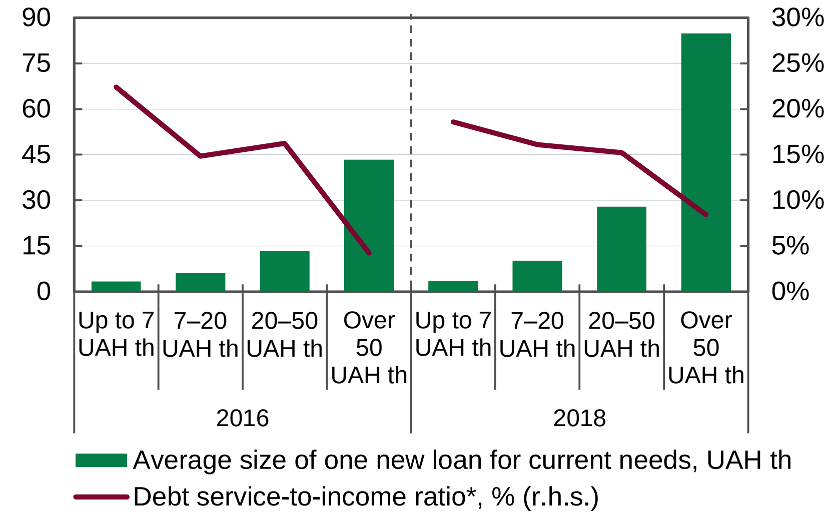
Outstanding loans for current needs to households by income groups, UAH billion



*Change in the debt burden of the respective household group by income from 1 January 2017 to 1 January 2019, %.

Source: Banks' information, NBU estimates.

Debt burden on borrowers by income group

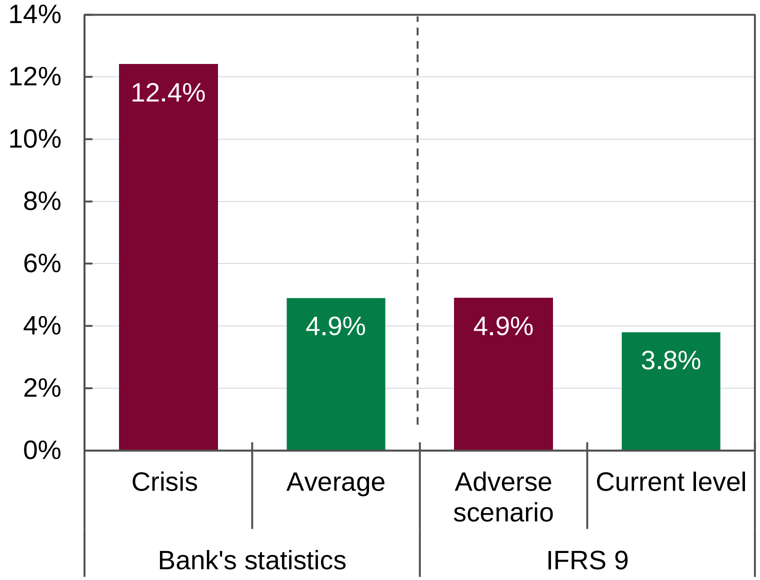


Debt service-to-income ratio (DSTI) – the ratio of monthly expenses for servicing the loan and the average monthly income.

- Distribution of loans is uneven amongst borrowers by income groups.
- Loans to borrowers earning less than UAH 7 000 are surging, although they still make minor share of loan portfolio.
- Share of loans to borrowers with unidentified income is declining, although they are still granted loans.

Risk assessment for consumer loans are sometimes not conservative enough

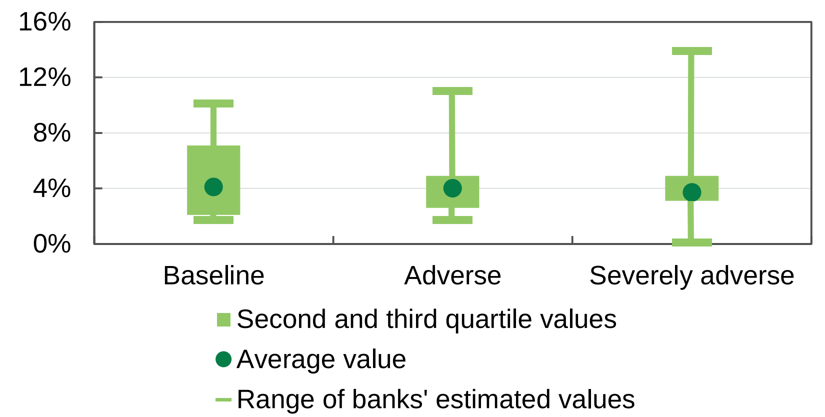
Average PD based on banks' statistics and IFRS 9 models



Source: information from banks, estimations of NBU.

Banks' estimations of PD based on NBU scenarios

Indicator	Scenarios: baseline	Scenarios: adverse	Scenarios: severely adverse
Real GDP, % yoy	3.3	-4.1	-7.6
Nominal GDP, UAH billion	3 559	4 177	4 733
Exchange rate*, % yoy	7.5	23.2	31.7
CPI, % yoy	9.8	15.8	32.8

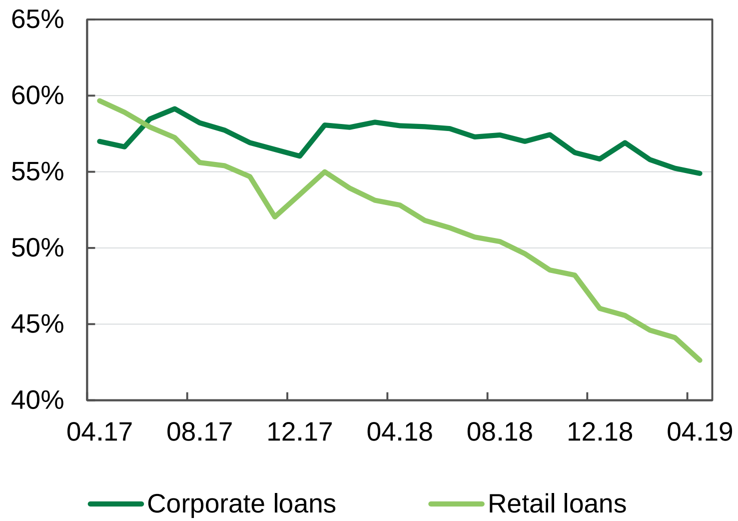


*Exchange rate of UAH to USD; for baseline scenario - Focus Economics estimations.

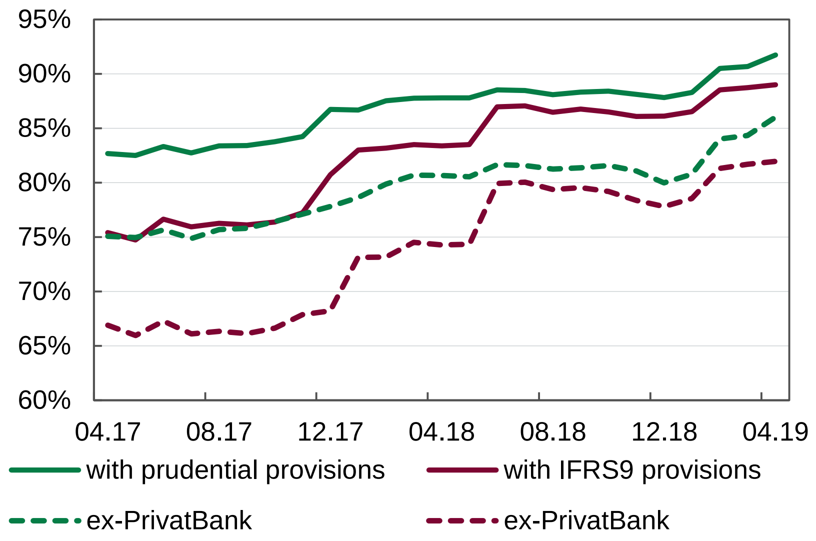
- Current estimations of expected losses at most of the banks are consistent with current macroeconomic conditions and their underwriting standards.
- At some banks assessments are not conservative enough and are not sensitive to deterioration in macroeconomic conditions.

82% of total NPLs are concentrated at state- and Russian-owned banks

NPL ratios by type of borrowers



NPL coverage ratio (prudential provisions and IFRS9 provisions)

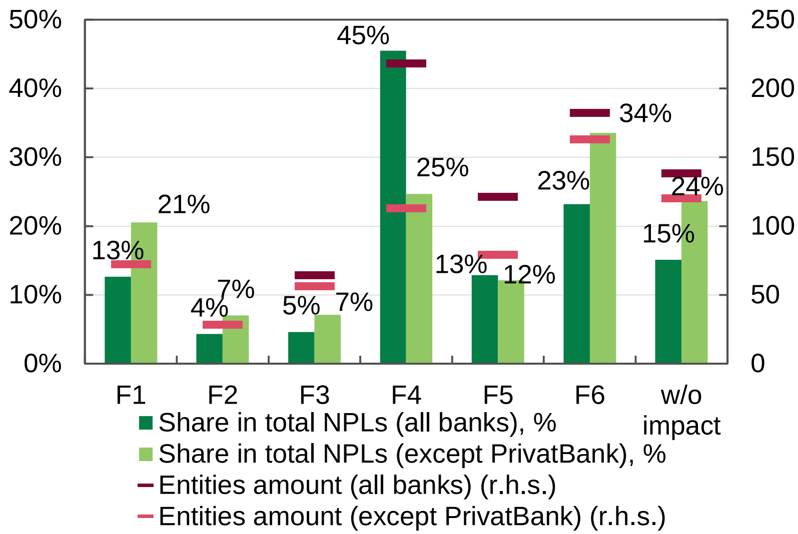


Source: NBU.

- NPL ratio is declining statistically thanks to new retail loans.
- The most reliable banks (top-5 foreign) are actively improving their loan portfolios: the NPL ratio dropped in 2017-2019 from 29% to 12% for corporate portfolio and from 60% to 25% for retail portfolio.

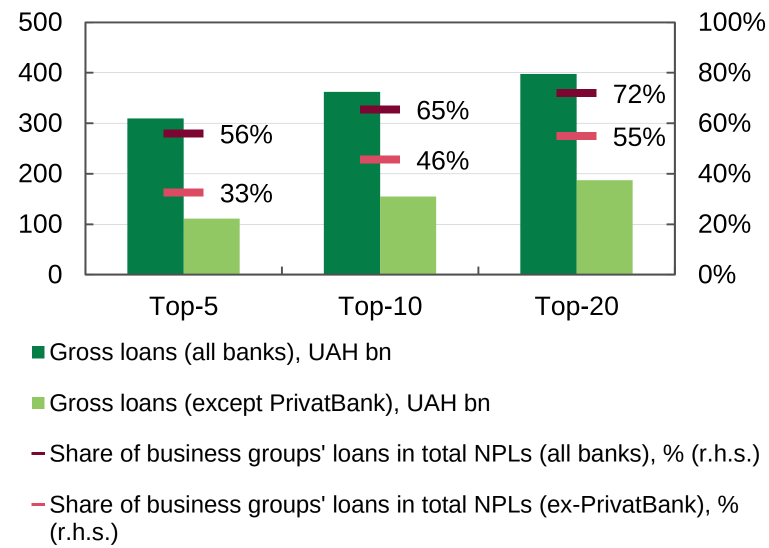
Half of NPLs were due to poor underwriting standards

Estimated drivers of borrowers' default



Source: NBU, SSSU, companies' data.

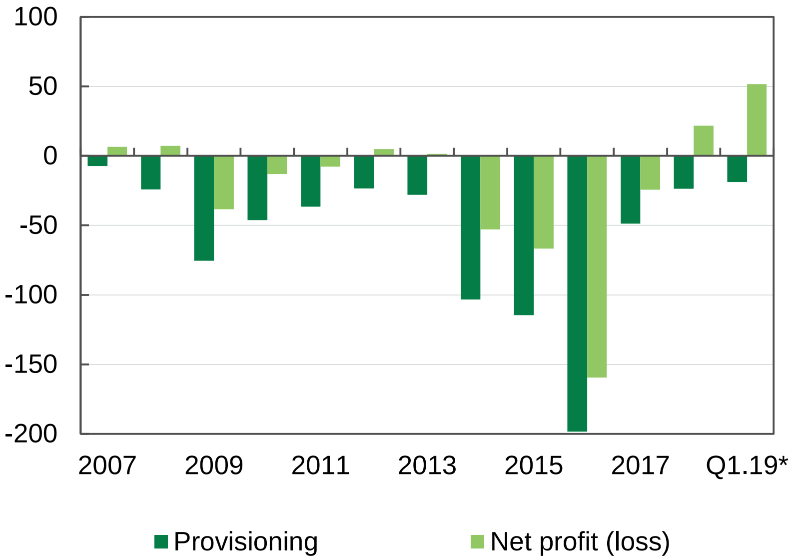
Share of loans to business groups in NPLs over UAH 100 million as of 1 April 2019



- F1 – non-controlled / demolished territories (ATO / United Forces Operation);
- F2 – industries that suffered from loss of Russian market (exports);
- F3 – industries that suffered from contraction of domestic demand during the crisis;
- F4 – non-operating borrower at the time of loan origination (net debt to revenue > 5, revenue = 0);
- F5 – unacceptable debt burden of the borrower at the time of origination (while remaining operational) (net debt to revenue > 2.5, net debt to EBITDA > 7);
- F6 – high debt burden – net debt-to-EBITDA ratio of over 5;
- w/o impact – none of the above factors had an impact.

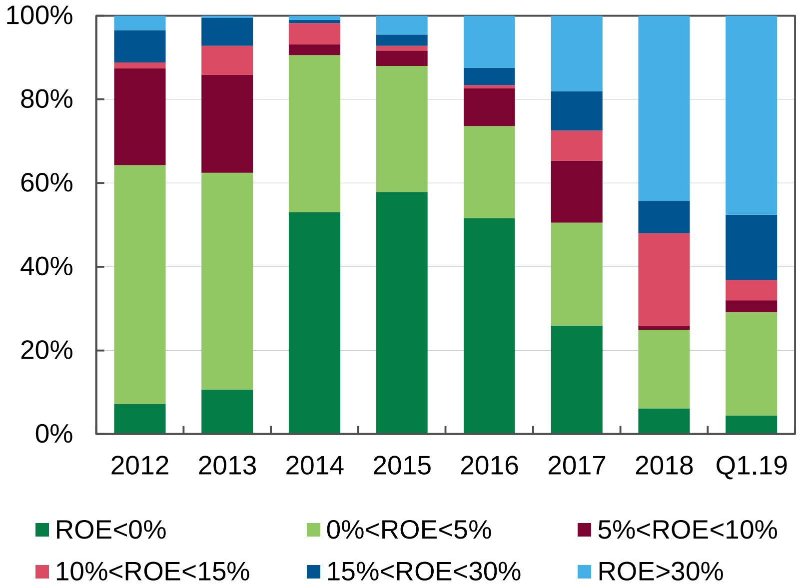
The banking sector is generating high profits…

Financial performance of the banking sector, UAH billion



*Annualized data.
Source: NBU.

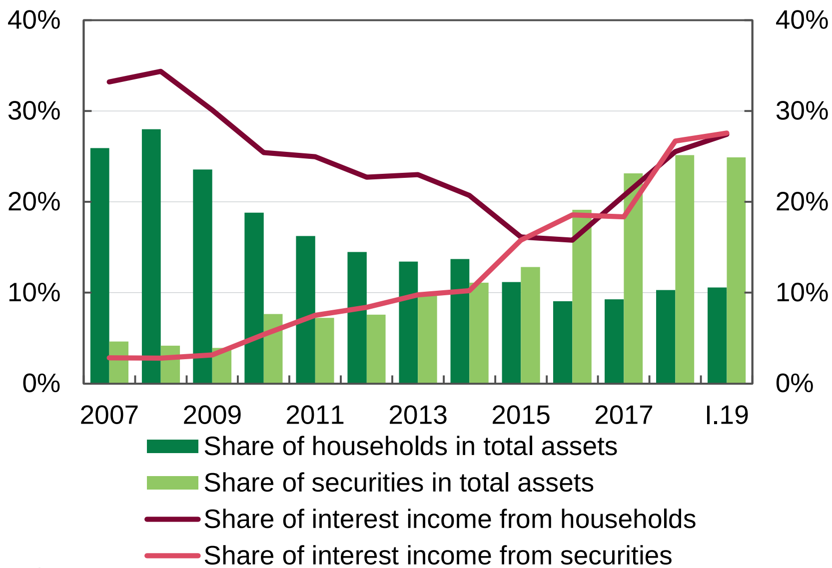
ROE of banks by assets



- Net income of the banking sector for the first 5 months of 2019 was UAH 23.4 billion (+83% yoy), more than in the whole 2018. Net income in Q1 was UAH 12.9 billion.
- In Q1, 12 banks accounting 47.6% of the total sector assets (comprising PrivatBank and mostly banks belonging to international financial groups) had ROE over 30%.

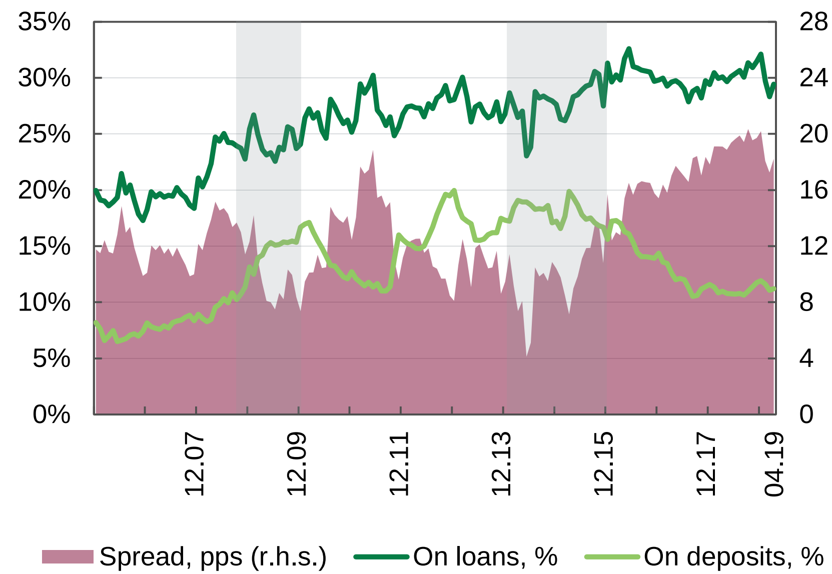
… primarily thanks to consumer lending

Impact of retail lending and investment in securities on structure and performance of bank portfolios, %



Source: NBU.

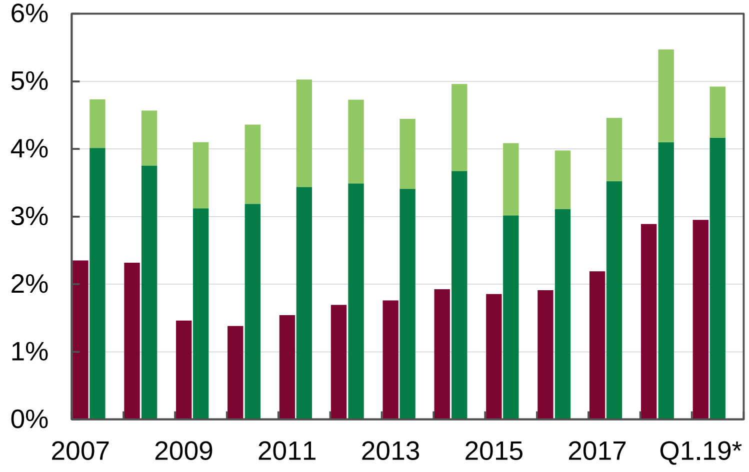
Change of interest rates on new retail loans and deposits in hryvnia



- Retail loans make 18.4% of loan portfolio of the banking sector while generating 39.2% of interest income from loans.
- Spread between new loan and deposit rates surged in the aftermath of the crisis.
- Coupon payments on domestic government bonds make around 40% of interest income of state-owned banks and 17% of private banks.

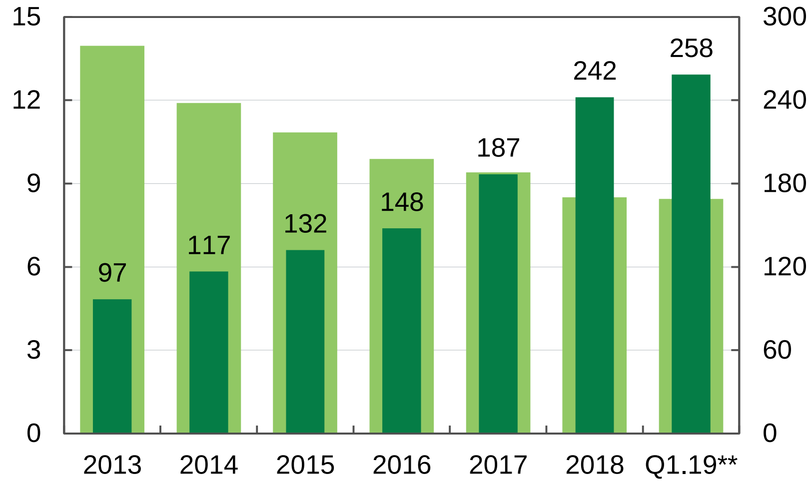
Administrative costs are rising

Ratios of net commission income and operating costs to net assets, %



* Annualized.
Source: NBU.

Number of branches and personnel costs*

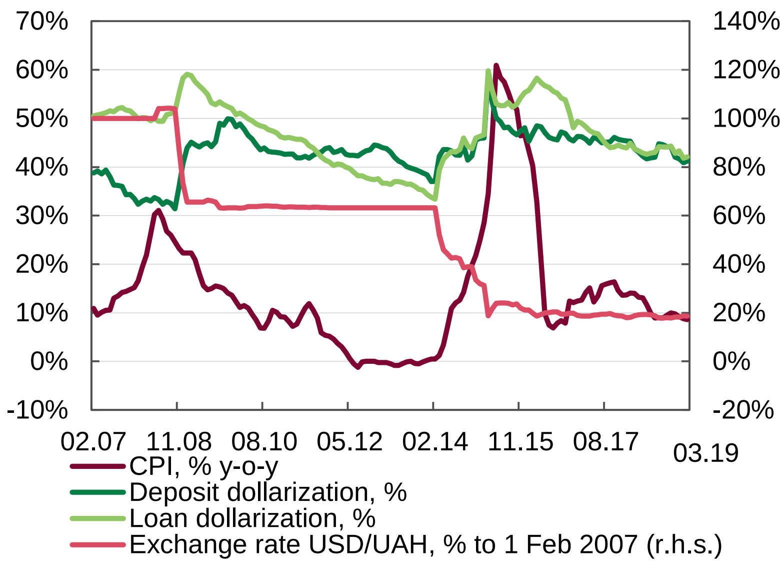


* At solvent banks as of 1 April 2019.
** Annualized.
Source: NBU.

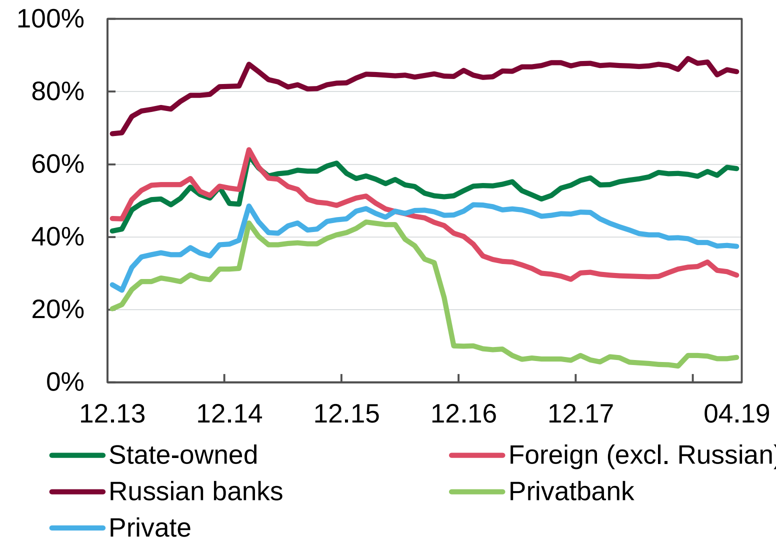
- In Q1, commission income rose by 17.7% yoy and covered 70.8% of administrative costs, the highest reading in over a decade.
- Administrative costs increased because of higher wages and investments in IT solutions.
- Number of branches of active banks has dropped by more than a third since the start of the last crisis.

Dollarization is declining, albeit slowly

Banking sector dollarization



The dollarization level of net credit portfolio by bank groups

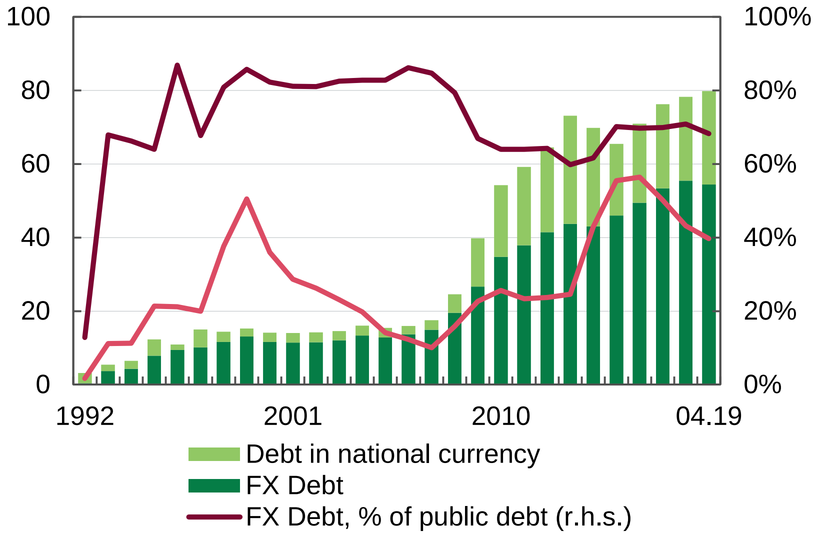


Source: NBU.

- Loan dollarization rate is uneven for groups of banks. It has substantially fallen lately for foreign banks (except for Russian ones) and private banks.
- Big spread between deposit rates in FX and UAH will drive the ratio of hryvnia deposits in the sector up further on.
- If macroeconomic persists and inflation gradually slow down, the loan dollarization rate will naturally decline.

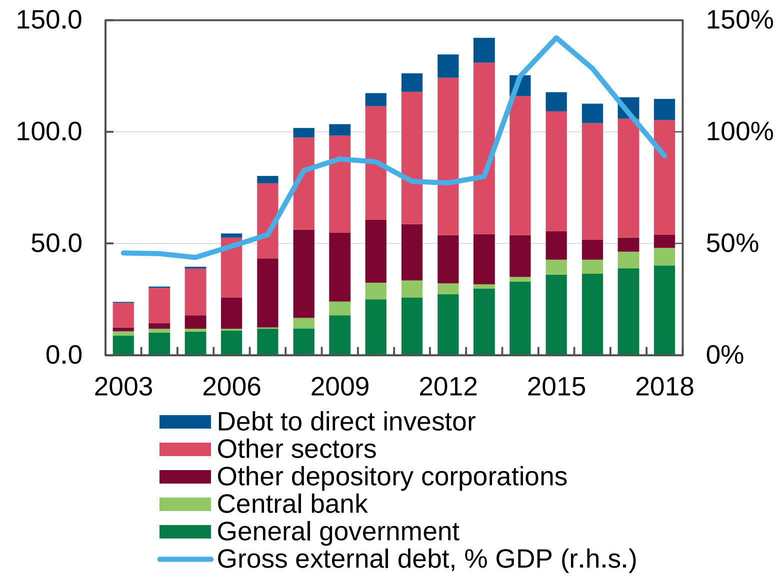
Dollarization of the public debt is a material risk for public finance

Currency structure of the State and State-guaranteed debt in 1992-2019, USD billion equivalent



Source: SSSU, Ministry of Finance, NBU.

Gross external debt position of Ukraine, USD billion



Source: NBU.

- FX component of the public debt remains significant at 68.2% on 1 May 2019. In the first four months of 2019 the share of public debt in FX decreased by 2.7 pps due to more investments in domestic government bond market from non-residents.
- Target FX public debt to GDP in CEE countries: Hungary 15-25%, Czech Republic – no more than 15%, Poland – not more than 30%, Romania – 40-55% (due to preparation for accession to Euroarea).
- Medium-term target is wider supply of hryvnia-denominated public debt instruments. Interest in domestic government bonds from non-residents should facilitate shifts in currency composition of the debt.

Recommendations

To public authorities:

- Expedite the adoption of remaining propriety bills (*Bill On Consolidating the Regulation of the Financial* Services Market, Bill On the Protection of the Rights of Financial Consumers). Optimize further legislation in the areas of anti-money laundering, settlements and payments, banking.
- Ensure cooperation with the IMF.
- Initiate a legal solution on distribution of profits of state-owned banks.
- Adopt a ministerial decree on NPL resolution at state-owned banks.
- Reduce the FX proportion of the public debt.

To banks:

- Implement all recommendations of the previous Report:
  - Speed up the NPLs resolution;
  - Adequately assess borrower credit risk, use data from the NBU Credit Register;
  - Reduce dollarization of loan portfolios;
  - Raise and retain more sustainable long-term funds.
- Introduce risk management systems at banks according to schedule outlined in Regulation 64.
- Direct current high profits to building up capital.
- Ensure more adequate assessment of credit risks under consumer loans.

NBU's plans and intentions

- Adopt regulation on NPL resolution process.
- Finalize requirements on new capital structure.
- Finalize requirements on new liquidity requirement, NSFR.
- Set requirements on calculation of capital needed to cover operational risk.
- Hold the second annual resilience assessment of banks.
- Update methodology for identification of systemically important banks and to postpone introduction of systemic importance buffer until 1 January 2021.