FINANCIAL STABILITY REPORT

June 2017

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Introduction

This report is the third Financial Stability Report issued by the National Bank of Ukraine. It analyzes the risks and threats that could impact the stability of Ukraine's financial system.

The main focus is on risks within the banking system – credit risk, foreign exchange (FX) risk, capital adequacy risk, liquidity risk, profitability risk, and legal risk. The report also makes recommendations to government authorities and banks regarding their risk management, which will contribute to the stability of the financial system.

In addition to the comprehensive risk analysis of key sectors of the economy, the report contains annexes comprised of the findings of various financial stability studies. In particular, this issue includes studies on mortgage lending and the cost of the crisis of 2016 – 2017 for the public and private sectors.

The NBU has an overarching interest in the stability of the financial system originating from one of its core functions. Per the Law of Ukraine *On the National Bank of Ukraine*, the regulator promotes financial stability within the scope of its mandate, including the stability of the banking system, as long as it does not impede achieving and maintaining price stability.

Financial stability is closely related to the NBU's priority of price stability. The financial system plays a key role in the transmission of monetary signals to the real economy, which contributes significantly to stable economic growth.

The report is first of all addressed to financial market participants and those interested in issues of financial stability. The dissemination of the information and conclusions contained in this report helps economic agents better understand existing risks and the probable scale of their influence on financial stability. It also enables the regulator to improve systemic risk management.

The report was presented to the Financial Stability Committee of the NBU on 13 June 2017 and was approved for publication by the committee.

The analysis is based on data available as of the report date; the analysis period may vary for certain indicators.

Key findings

Over the last six months, the main risks to the banking sector have subsided and this trend is expected to continue through the second half of the year. Assessments of capital risk, profitability risk, and liquidity risk have all improved. At the same time, FX risk has remained virtually unchanged as the share of banks' FX-denominated assets and liabilities remains high. Credit risk has also not changed as progress in corporate loan restructuring has been slow. Legal risk has risen due to controversial court rulings concerning banks that were declared insolvent as well as rulings depriving creditors of the right to recover collateral.

The nationalization of PrivatBank was a key event that took place since the last Financial Stability Report was published. The risk of the shareholders failing to increase the bank's capital and restructure related party loans, as outlined in the previous report, materialized. The government has already spent the equivalent of nearly 5% of GDP to recapitalize PrivatBank and protect financial stability.

The macroeconomic environment has remained favorable to the banking sector, although the suspension of trade with the non-government controlled areas (NGCA) in the east of Ukraine has slowed economic growth. A slower recovery of revenues and profits at several large companies is a negative consequence of the trade blockade, and one which will delay the return of those companies' leverage back to normal. Real household income is recovering thanks to lower inflation and a significant increase in the minimum wage. This boosts the attractiveness of consumer finance in the eyes of banks.

With banking sector problems resolved and PrivatBank nationalized, the focus of the IMF program has shifted towards pension and land reforms, privatization, and fighting corruption. It is crucial for Ukraine to maintain the pace of cooperation with the IMF; otherwise, in 2019, when large payments on external government debt are due, Ukraine's macroeconomic and financial stability will be exposed to significant risk. In general, the government's pension initiatives are a good starting point on the path to eliminating the Pension Fund's deficit and establishing a more equitable pension system.

The banking sector's funding base remains stable; almost all bank liabilities are sourced from the domestic market. However, most funds attracted by banks from households and businesses are short-term: over 50% of all household funds are current accounts or deposits maturing in less than one month. This maturity structure may pose risks in the future. Banks should give more incentives for clients to opt for longer-term deposits. Moreover, short maturities of liabilities force financial institutions to keep a large portion of assets in liquid instruments (cash, domestic government bonds, NBU certificates of deposit) to ensure a proper liquidity buffer to handle possible shocks.

The portfolio of corporate loans has remained practically unchanged for some time now. This is mainly due to the heavy debt burden on businesses, slow economic recovery, and weak protection of creditors' rights. These factors will continue to restrain corporate lending into the second half of the year. At the same time, retail lending has started to grow, mainly consumer and credit card loans. The recovery of mortgage lending is slow. Banks have identified two key problems: the limited number of solvent borrowers with confirmed incomes and – once again – high legal risks. Clearly, legislation and judicial culture need to be changed to protect creditor rights; otherwise, there can be no material growth in lending.

A number of systemic problems in the banking sector have been resolved over the last three years. The clean-up of the banking sector has been completed, but the progress has given rise to new issues. The main systemic risks for the financial sector are now the government's large ownership in the banking sector and high NPL rate.

The PrivatBank nationalization has resolved one systemic problem, but resulted in a long-term challenge: the state's share of the banking sector now stands at 56% by net assets and 62% by retail deposits. Last year, there was almost no progress in reforming state-owned banks, and the government's strategy is not being executed. Operational efficiency at state-

owned banks is extremely low: most of their interest income is from coupon payments on domestic government bonds, the quality of their credit risk management is inadequate, and clear business models have not yet been designed. Therefore, the key task in terms of reforming state-owned banks is the adoption of new legislation introducing independent supervisory boards and protecting banks from political influence.

A high NPL rate (57% in April) is a heavy burden on banks' balance sheets. Servicing of the bulk of these debts will never resume, so it is reasonable to fully provision and write them off. This requires amendments to legislation to protect banks from negative tax implications. Financial institutions should pursue more restructurings with bona fide borrowers whose financial standing is improving. Banks should also make use of the mechanism of financial (out-of-court) restructuring, which launched in full in March. In the second half of the year, the NBU will require banks to develop a strategy for handling NPLs and to set specific timeframes to implement that strategy.

As expected, the banking sector started to generate profits from the start of 2017. Net interest incomes are growing in response to cheaper funding, and net commission incomes are also on the rise as demand for banking services from households and businesses grows. Nevertheless, the income generated by state-owned banks so far could be fully negated owing to the need for additional provisioning in the second half of the year.

Map of banking sector risks

Credit risk is subsiding slowly. Households and businesses are gradually becoming more solvent, which gives room for new loans with a low risk of default. However, the restructuring of existing NPLs remains sluggish, and risks persist.

Capital adequacy risk has declined owing to the nationalization and recapitalization of PrivatBank. Oschadbank and Ukreximbank also received additional capital from the government as their asset quality deteriorated after stress tests. Private banks will require a minor amount of capital to complete the capital increase programs based on the results of stress tests.

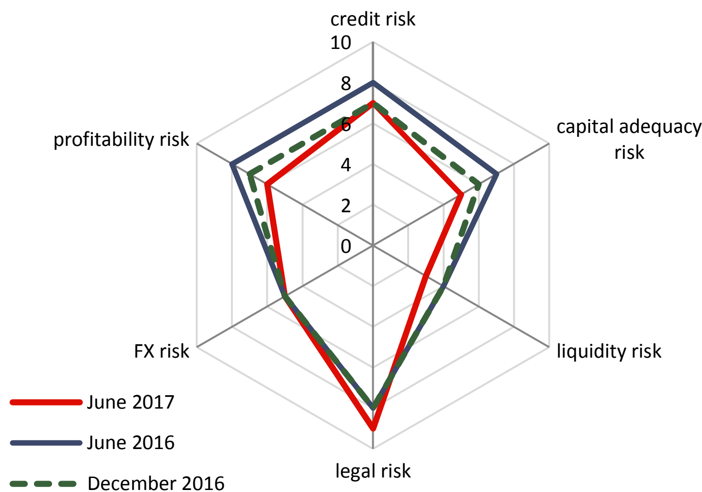
Liquidity risk decreased further as deposits have continued to flow into the banking sector from households and businesses. The sufficient liquidity has allowed banks to continue cutting deposit rates.

Legal risks have increased over the last six months after several controversial court rulings on the insolvency of individual banks. Improvements to legislation have been limited. Most of the laws required for the development of the financial sector have not yet been tabled. The legal risks affect the resumption of bank lending the most.

FX risks remain moderate, as most of the negative effects of the hryvnia's depreciation during the crisis have already materialized. However, the dollarization of banks' assets and liabilities remains high. This introduces potential risks for financial institutions and borrowers in case the hryvnia depreciates in response to an external shock.

Profitability risk has decreased substantially on growth in banks' operating incomes and substantial decrease in provisioning. The private banking sector will make profits in 2017, although state-owned banks face significant risks to profitability.

Map for the banking sector risks*



** Risk range from 0 to 10 where 10 is the highest risk weight.*
The estimate reflects the expectations for the next six months.

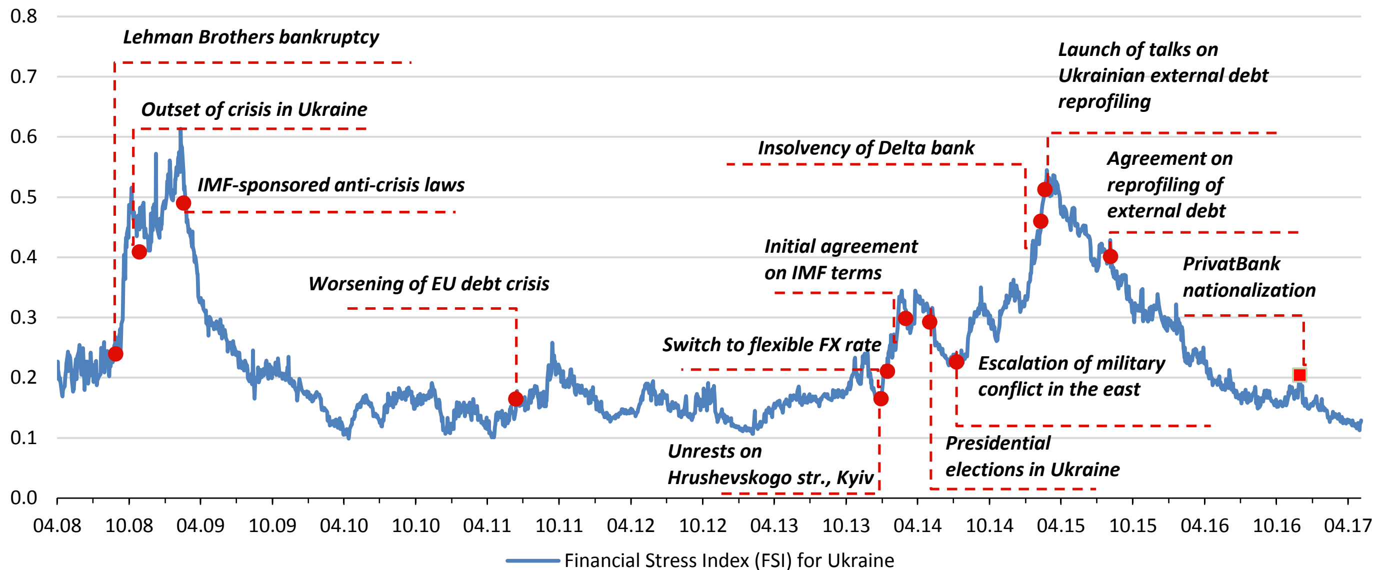
Source: NBU staff estimates

Notes:

Credit risk reflects expected changes in the share of NPLs in banks' credit portfolios and the need for extra provisions for those loans.
Capital adequacy risk is an estimate of banks' capability to comply with the regulator's capital adequacy requirements.
Liquidity risk is a measure of banks' capability to meet their liabilities to depositors and creditors on time and in full.
FX risk is the risk that FX market trends will impact banks' financial results.
Profitability risk reflects the ability of banks to generate net profit.
Legal risk estimates the ability of banks to use legal instruments to effectively protect their rights.

Financial stress index

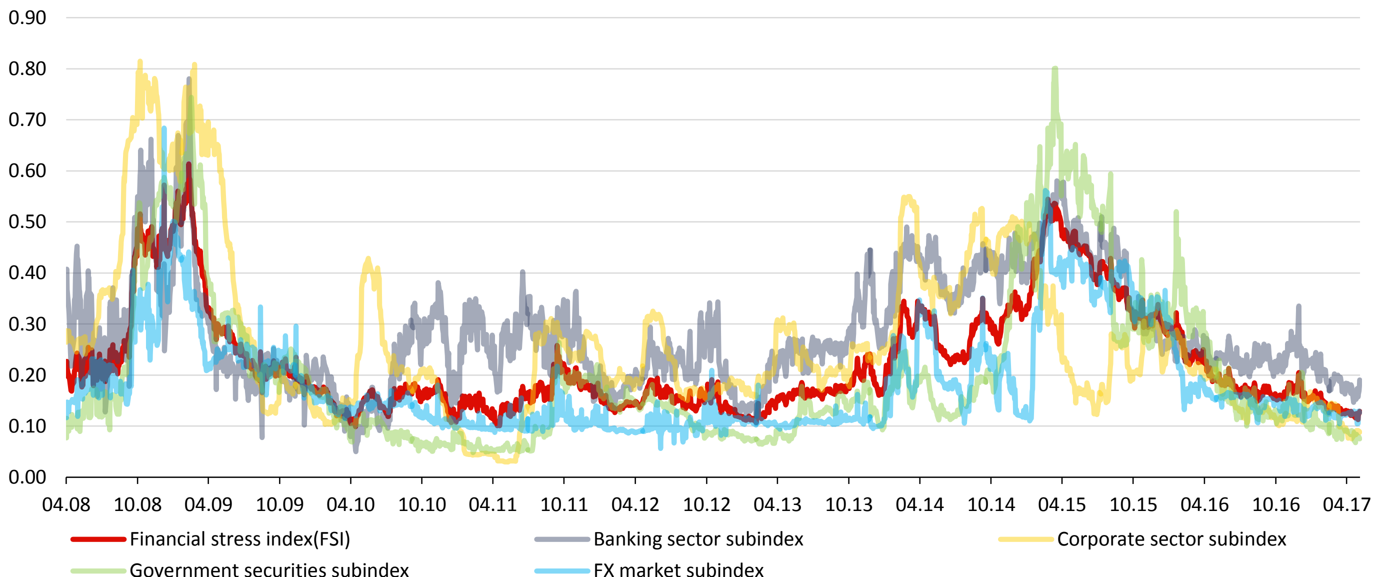
Financial Stress Index (FSI) for Ukraine



Source: NBU

In 2014 – 2015, Ukraine's Financial Stress Index (FSI)[1] was elevated as a result of the economic crisis. Throughout last year, the index gradually declined to its pre-crisis level. Late last year, after publication of the previous Financial Stability Report, the index rose once more for a short period. This was related to the nationalization of PrivatBank, which entailed uncertainty and instability on financial markets and an outflow of deposits. The situation returned to normal by mid-January 2017 and the index has again decreased steadily.

FSI sub-indices for Ukraine



Source: NBU

[1]The calculation method for Ukraine's Financial Stress Index is outlined in the December 2016 Financial Stability Report.

External conditions and risks

External conditions and risks

External risks to Ukraine's financial stability have decreased over the past 6 months. The growth of the global economy has picked up. Political uncertainty in developed countries has retreated, as have the geopolitical threats for Ukraine. The implementation of visa-free travel with the EU and the full ratification of the Association Agreement will increase the pace of Ukraine's European integration. Prices for mining products may go further down, but the NBU projections already reflect this. Increases in interest rates around the world also introduce risks for Ukraine as it could make external debt servicing more expensive. Risks related to the conflict in the Donbas region remain unchanged.

The growth of the global economy is accelerating

In its *World Economic Outlook* published in April, the IMF forecast an acceleration of global GDP growth from 3.1% in 2016 to 3.5% in 2017 and 3.6% in 2018. Global trade volumes will increase, while risks to global financial stability will decrease.

The economies of Ukraine's major trading partners (MTPs) will grow further at a higher rate. The weighted index for the economies of Ukraine's MTPs (calculated by the NBU based on IMF estimates) grew 2.0% in 2016 and growth is projected to accelerate to 2.5% in 2017 and 2.6% in 2018 (Inflation Report, April). This will boost external demand for Ukrainian goods and services. The highest contribution to demand growth is expected from India and Poland, which are expected to deliver GDP growth in 2017 of 7.2% and 3.4%, respectively. In addition, demand from Russia will halt its decline.

Ukraine is less exposed to geopolitical risk

This year's elections in the Netherlands and France are signs that isolationism and populism will not dominate Europe in the next few years. Uncertainty over the future EU's external policies has also diminished. Occasional Eurosceptic flare-ups are possible, but they will not have a material impact on integration processes.

The position of President Trump's administration towards Ukraine has gradually become clear. The US is standing firm on its position that Russia should be responsible for a de-escalation of the conflict in the Donbas. Ukraine will benefit from this approach as it reduces the risk of further hostilities. The US changed its approach towards support of Ukraine, switching to provision of loans rather than through non-repayable financial assistance.

The Donbas conflict will, most likely, continue to smolder

Ukraine is continuing to seek ways to regain control over the non-government controlled areas (NGCA) of Donetsk and Luhansk oblasts. The elections in France and Germany have halted the work of the Normandy Contact Group. However, the election results in France, public opinion polls of political support in Germany, and rhetoric from the new US presidential administration suggest international partners' positions on the Donbas conflict will not worsen for Ukraine. At the same time, Russia's policy will remain unchanged: it will most likely continue to use the frozen conflict to keep the situation in Ukraine uncertain. This will remain a risk that could hamper inflows of foreign capital to the economy.

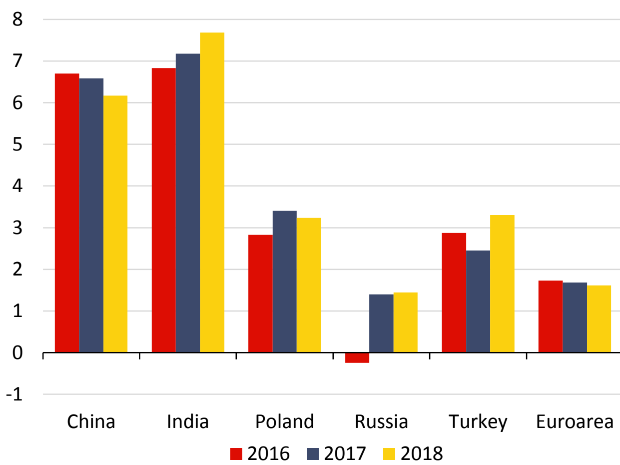
Naftogaz wins round one against Gazprom at the Stockholm arbitration court

The Arbitration Institute of the Stockholm Chamber of Commerce issued on 31 May an interim decision to satisfy the claim of Naftogaz of Ukraine against Gazprom to cancel the "take or pay" clause for Russian gas supplies. The court rejected Gazprom's counterclaim for Ukraine to pay more than USD 45 billion. The price for the Russian gas consumed since 2014 must be revised to take into consideration market conditions. A final decision on the arbitration (including the transit terms) is expected by the end of June. The ruling eliminates significant risks to financial stability in terms of balance of payments and public finance.

The ratification of the Association Agreement between Ukraine and the EU is in the homestretch

The results of the elections in the Netherlands had a direct positive effect for Ukraine. On 30 May, the upper chamber of the Dutch parliament ratified the EU-Ukraine Association Agreement (in repeat voting required after last year's referendum). The agreement can now take effect in full. The delay did not affect the development of economic relations between Ukraine and the EU; the economic portion of the agreement came into effect on 1 November 2014 and the free trade area on 1 January 2016. However, the full agreement ensures that the European integration will continue and will accelerate. For many investors, this could be a signal to start investing in Ukraine as a way to accessing the EU market.

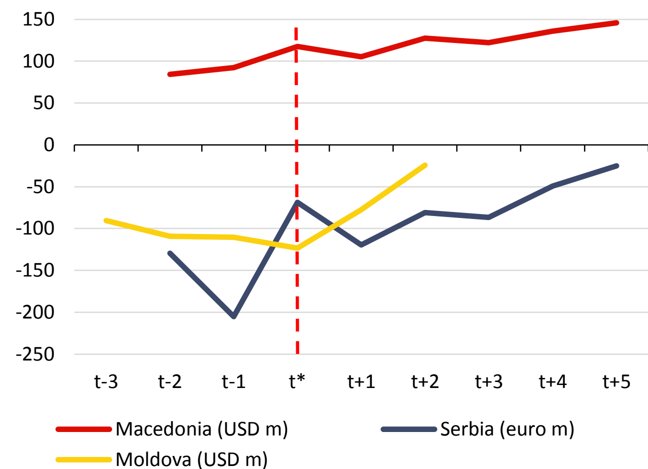
GDP of major trading partners, %*



** 2017–2018 – IMF projections.*

Source: IMF World Economic Outlook, April 2017

Net of "Travel" item of the balance of payments of countries that obtained visa waiver from the EU



** Year of visa waiver.*

Source: Central banks of the countries

Ukraine secures visa-free travel to the EU

On 11 June, visa-free travel to the European Union became a reality. This is a major strategic achievement. Ukraine will enjoy its multiple benefits, albeit gradually. The main benefit is in the closer political, economic, and cultural ties with the EU, which will have a lasting effect for the economy and for financial stability.

On the other hand, visa-free travel poses a supposed risk of a deterioration of the current account balance owing to a higher flow of tourists to Europe. However, the experience of countries that relatively recently ensured a visa waiver from the EU (Serbia and Macedonia in late 2009 and Moldova in April 2014) does no support this anxiety. Over the first 1-3 years, the travel line item of the balance of payments of each of those countries improved. However, this trend was largely supported by economic developments in these countries at the moment of visa waiver introduction.

The risk of increased labor migration to the EU among Ukrainians is rather notional. The visa-free regime brings no change to the employment rules for Ukrainian citizens in the European Union. Visas have never been a barrier for illegal labor migration; individuals have always been able to travel to the Schengen zone on a tourist visa.

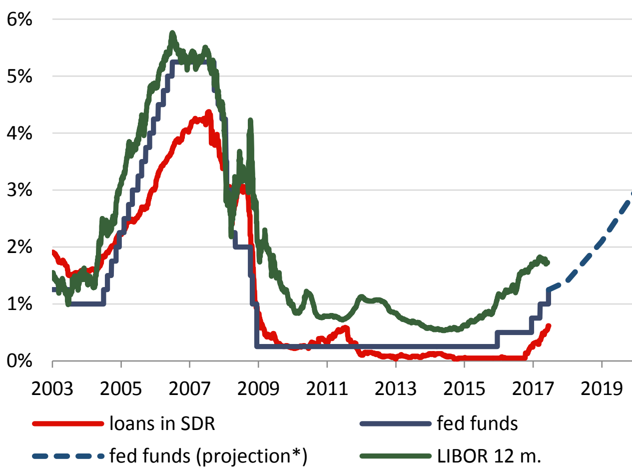
Global asset markets are on the rise, but show certain signs of overheating

The acceleration of global economic growth and diminished political uncertainty in developed countries have raised global investors' risk appetites. Asset prices are growing across the world. The stock market indices of countries like the U.S., UK, Germany, South Korea, India, Mexico, and Indonesia have all hit record highs. According to *The Economist*, housing prices are growing across most leading economies. In some countries, prices are already 1.5-2.0 times the records reached before the 2008 – 2009 crisis.

Investor optimism leads to higher capital inflows to emerging markets. According to the Institute of International Finance (IIF), emerging markets ex-China, have received net portfolio investment inflows since the start of the year. As a result, the currencies of many emerging markets have appreciated against the US dollar 5%-10% this year. To a large extent it was also due to depreciation of US dollar against other major currencies. However, investors are selective and they invest only in reliable countries that show progress in reforms. That is why, for example, Hungary's stock market is at a historical peak, while Ukraine's market has not even recovered half of its crisis decline.

The possible overheating markets and economies will lead to a rise in interest rates
The growth in assets does not pose a major risk over the coming months, but continued growth will result in global price bubbles in a few quarters. In the US, the asset growth has been accompanied by symptoms of an overheated economy: unemployment remains at normal levels while inflation has steadily exceeded the long-term target of 2%. The Federal Reserve System (the Fed) has begun to gradually raise interest rates. The market expects the Fed's key rate to grow 200 bp by the end of 2019. The European Central Bank (ECB) has completed its cycle of monetary policy easing. With euro area inflation low, no significant increases in the key rates are expected in the near future.

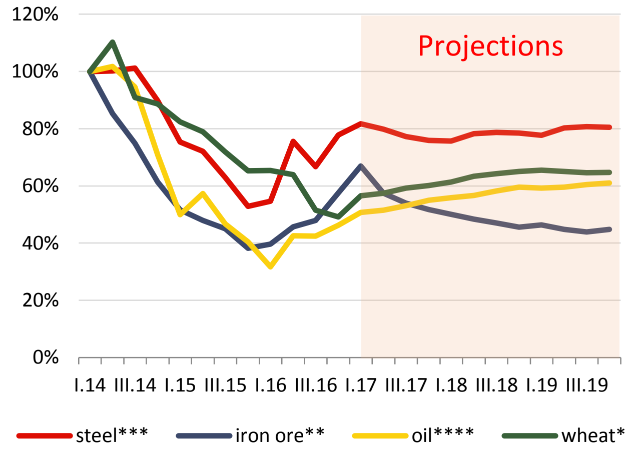
Interest rates in US dollars and projected Fed rate



** Mean of projections range of March 2017.*

Source: Fed, St-Louis Fed

World price indices for oil, ferrous metals, and grain, Q1 2014=100%



** Quarterly average; ** Fine ore, China (CFR Tianjin port); *** Steel Billet, FOB Ukraine; **** Brent, quarterly average.*
Source: MBU Inflation Report, April 2017

Fed's rate hikes, meanwhile, will likely boost risk premiums for emerging market investments. Borrowing costs will increase for transition economies. For Ukraine, this would mean a higher cost of external debt, particularly from international financial institutions. This relates to both new borrowings and a portion of outstanding debt as their cost is linked to LIBOR and other floating interest rates (around 12% of government and government-guaranteed debt). This introduces moderate risks for the budget and the balance of payments, and financial stability as a whole.

Global commodities prices move in line with the NBU expectations
Energy market prices have remained at the relatively stable levels reached late last year. The decision by OPEC countries in May to prolong the oil production cut for another 9 months has supported prices in the market. At the same time, increases in oil production in the US have restrained prices from further growth and have created additional downward pressure. Prices for mining and metallurgical products have been falling since the start of the year (iron ore prices were down more than 20% in May from the start of the year). However, they were still higher than a year before. Most analysts expect prices will remain unchanged over the medium term.

In the first half of the year, prices for the major agricultural exports were largely unchanged after recovering slightly from a large drop in the middle of last year. Global prices for grains and oilseeds are at record lows. Under its baseline scenario, the NBU expects no further declines in the prices of agricultural exports. Frosts in April – May are expected to have little effect on yields of grains and on export revenues.

Money transfers from labor migrants in Russia decrease

Money transfers from Russia have declined in both absolute terms (by two times in 2016 from 2014) and as a ratio of total transfers (from 36% in 2014 to 22% last year). Fewer Ukrainian labor migrants in Russia, the slump of Russia's economy, and the relocation of some families from the ATO zone to the Russian Federation were drivers of the shift. Thus, the risk outlined in the first Financial Stability Report has materialized.

The National Security and Defense Council of Ukraine has banned Russian payment systems from Ukraine. In turn, Russia has banned transfers to Ukraine via international payment systems. The measures will have a limited macroeconomic effect: the NBU expects transfers will be redirected through other channels (the banking system, cash, and via other countries). Therefore, those actions pose no risks to the balance of payments.

Domestic conditions and risks

Macroeconomic conditions and risks

The suspension of trade with the non-government controlled areas (NGCA) and the "nationalization" of Ukrainian enterprises by the militants have resulted in a temporary decrease in the pace of GDP growth. Nevertheless, additional risks for the financial sector arising from the suspension of trade with the NGCA are moderate. The key financial stability risks over the mid-term are related to a notable current account deficit and large payments on external public debt starting in 2019. To eliminate those risks, it is essential to continue cooperation with the IMF and to ensure inflows of foreign direct investment (FDI) and external debt capital.

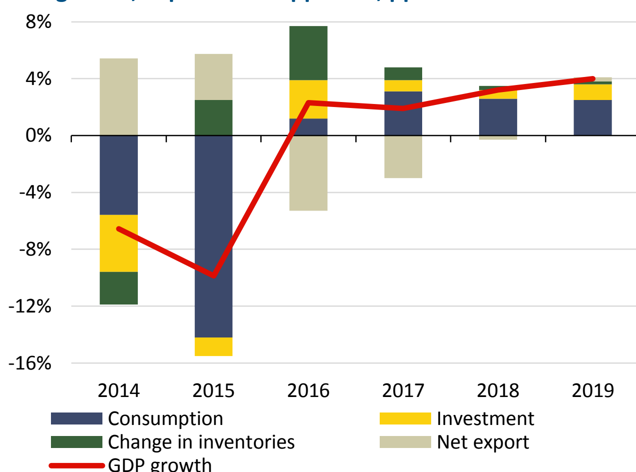
The suspension of trade with the NGCA carries adverse economic consequences

On 15 March 2017, the National Security and Defense Council of Ukraine approved a decision to suspend cargo trade with the NGCA. According to the NBU, the suspension of trade with the UCT will reduce GDP growth by 1.3 pp (which will be partially recouped through improved external conditions) and will push the current account deficit up by USD 1.8 billion to USD 4.3 billion in 2017. The mining and metals industries and the energy sector will incur the largest losses.

A part of the losses from the "nationalization" by the militants of production capacities in the NGCA will not be recoverable, but the losses related to interruptions of raw material supplies will be compensated over time. Companies will need to shift to other suppliers and grow production in the territory controlled by the Ukrainian government. This will require investment to develop logistics and production capacities and could lead to an increase in production costs at some enterprises.

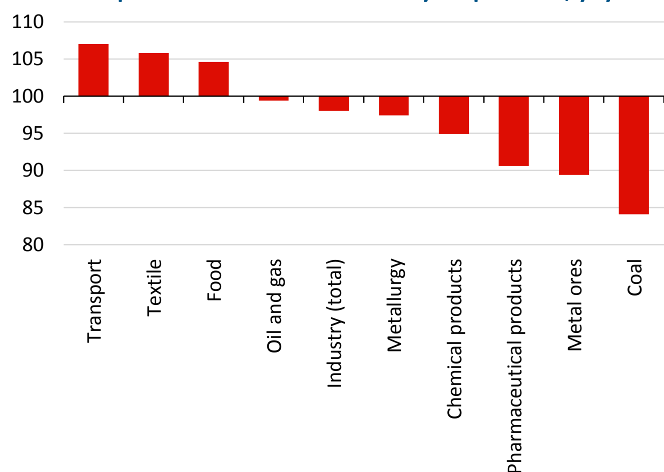
The suspension of trade with the NGCA and seizure of Ukrainian companies had a moderate impact on financial stability, although the risks will persist until the end of the year and will be related to growth in the current account deficit and possible pressure on the hryvnia exchange rate. The banking sector will incur no direct losses – almost all loans to producers with facilities located in the occupied territories were properly provisioned for. However, a slower rate of economic growth will affect the pace of solvency recovery and the normalization of the debt load for many large borrowers from banks.

GDP growth, expenditure approach, ppts



Source: SSSU, NBU

Industrial production indexes in January – April 2017, yoy



Source: SSSU

Low FX proceeds from external borrowings and FDI bring risks

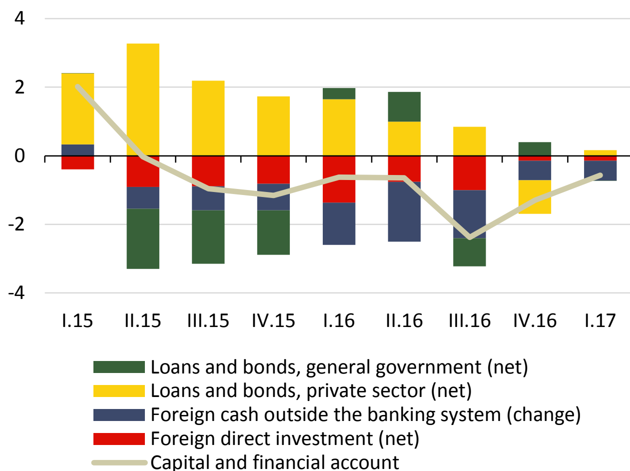
After a sharp reduction of the current account deficit in the balance of payments over 2014 – 2015 owing to the dramatic depreciation of the hryvnia and a drop in domestic demand, the trend has reversed, pushing the deficit to 4.1% of GDP in 2016. The growth in the deficit was the result of a quick revival of investment demand and a slump in exports caused by

volatility in raw material markets as well as trade and transit restrictions from Russia. The NBU forecasts the current account deficit will remain above USD 4.0 billion for the next few years. A reduction of the deficit is practically impossible in the coming years. Therefore, the issue of financing the current account deficit becomes essential. The economy needs steady debt capital inflows into the private sector and/or FDI to maintain equilibrium in the FX market and keep the exchange rate stable.

Over the past five quarters, the current account deficit was mostly offset by a reduction of FX cash circulating outside banks. Other sources of inflows were weaker (FDI inflows were primarily the result of the capitalization of external debt by banks). The potential for the return of FX cash to the banking sector is strong. However, this source is unstable as it is highly dependent on household sentiment and expectations. Therefore, a recovery of foreign capital inflows (loans and FDI) to the corporate sector is the key to financial stability in the medium term.

Foreign investors are showing greater interest in Ukraine, as evidenced by the successful fundraising efforts by Kernel and MHP. The main barriers to inflows of debt capital and FDI are the slow pace of structural reforms and problems with the protection of property rights and investors' interests in the courts. Another substantial problem lies in the non-transparency and negative credit history of most businesses, which make it impossible for them to cooperate efficiently with foreign investors. An active wave of privatization could help encourage investment growth. Investment activity is still complicated by the administrative restrictions introduced in the FX market amid the crisis. To deal with this barrier, the NBU plans to continue easing those restrictions. In that area, the elimination of restrictions related to FDI is a top priority.

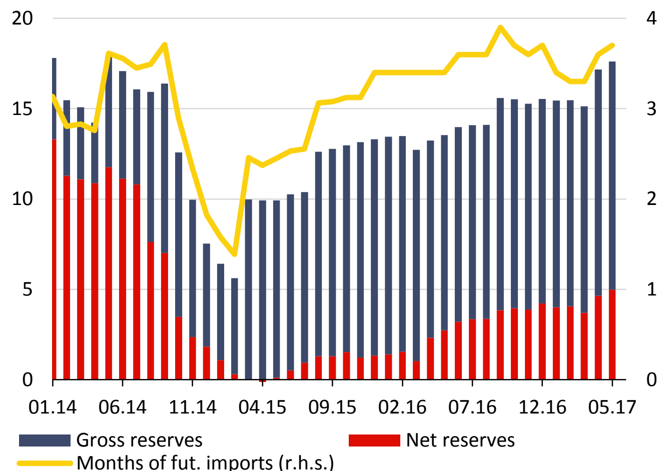
Financial and capital accounts, USD billion*



** Negative readings indicate capital inflows.*

Source: NBU

International reserves of the NBU, USD billion



Source: NBU

The IMF program remains vital for financial stability

After the resolution of urgent issues in the financial sector, especially the nationalization of PrivatBank, the focus of the IMF program is shifting towards structural reforms. In order to secure the next IMF tranche, Ukraine must reform the pension system, take concrete steps towards launching the agricultural land market, resume the privatization of state-owned enterprises, and intensify anti-corruption efforts.

The IMF program remains important considering the high risks over the medium term related to the large repayments of external public debt starting in 2019. Substantial delays in implementing the reform package and a slowdown in cooperation with the IMF would limit Ukraine's access to international capital markets and make it impossible to service the external public debt on time and in full. That would introduce risks of a new wave of hryvnia depreciation and a depletion of the NBU's international reserves.

Fiscal sector and related risks

A significant increase in pensions, large expenditures for utilities subsidies, and the need to increase capital at state-owned banks could boost public sector expenses this year. Pension system reform has been launched to reduce the deficit of the Pension Fund and establish a more fair system of payments. For housing subsidy expenditures to remain reasonable, the subsidy system must be improved. Ukraine has not yet been able to reduce the quasi-fiscal deficit to zero. In the near-term, the size of the deficit will depend on capital needs at PrivatBank. Local and state budgets continue to spend funds unevenly, which exposes the banking sector to extra liquidity risk.

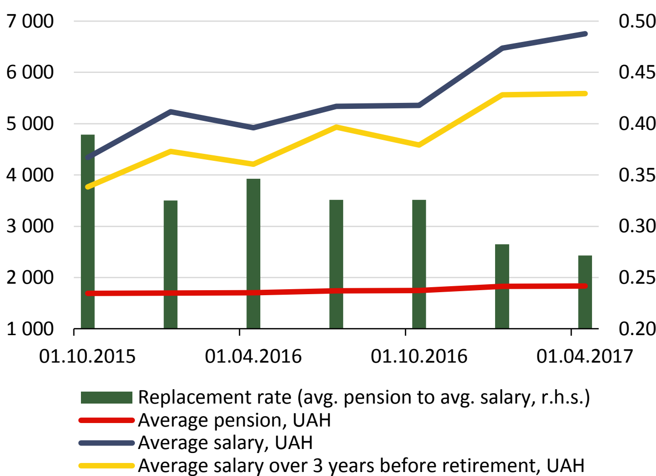
Fiscal policy is prudent, but risks remain

Last year, the consolidated budget generated a 2.3% deficit. This was higher than in 2015, but substantially below the plan and the threshold set out in the IMF program. Up to now, none of the government's novelties, such as the increase in the minimum wage, have widened the fiscal deficit. If this trend continues, the NBU estimates the consolidated budget deficit will decrease to almost 2% by 2019. However, there are substantial risks to meeting that target deficit. The major threat is related to the potential populist initiatives not funded by public revenues that could be made by politicians in the run-up to the 2019 elections. Other risks include the unreformed pension plan and the costly system of public utility subsidies.

Pension reform is required to reduce the Pension Fund deficit and risks to the budget

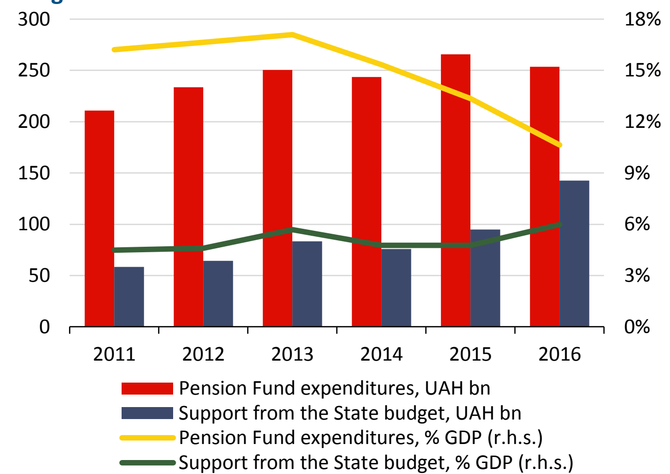
The current pension plan is a constant source of risk to financial stability. The average pension in Ukraine is one of the smallest in Europe. At the same time, the Pension Fund of Ukraine's (PFU) expenditures as a ratio of GDP are among the highest. Last year, budget transfers to the PFU came to approximately 6% of GDP. The number of pension recipients per taxpayer of the Single Social Contribution (SSC) is also high: early this year, Ukraine had a working population aged 15-70 years of approximately 16.1 million individuals, only 12.8 million SSC taxpayers, and 11.9 million pensioners. The unfavorable demographic situation and the significant presence of the shadow economy could not only preserve the existing imbalances for a long time but also cause them to grow. This poses substantial risks for financial stability in the short- and long-term.

Average salaries and pensions in Ukraine in 2015 – 2017



Source: PFU, SSSU

Pension Fund expenditures and financing from the State budget



Source: PFU, SSSU

From the start of last year, the SSC payment rate was standardized and reduced to 22%. This served to grow household and corporate earnings, but it did not bring wages and the economy out of the shadows as expected. As a result, inflows to social funds decreased and last year PFU proceeds covered less than half of all pension expenditures. As of the start of 2017, another new factor came into effect: the minimum wage was doubled. Combined with

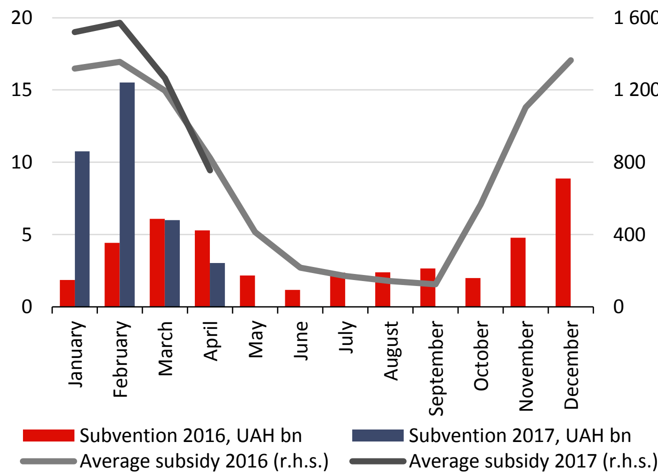
other factors, this served to increase revenues from SSC 34% yoy in January – May. If the trend continues, the PFU would receive extra UAH 42 billion in 2017. This will help to reduce the fund's deficit but not to eliminate it. Fully covering the existing deficit would require an amount four times larger.

The government is currently focused on reforming pension legislation. The amendments will concern the amounts and the approach for the accrual of pensions, as well as the qualifying period required to retire with a pension. These changes will not solve the problem in the short run. Nevertheless, the pension reform proposed by the government is a good starting point to balance the pension system and eliminate risks to financial stability.

The subsidy system places excessive pressure on the budget and needs to be improved
In 2017, the actual financing required to cover public utility subsidies for households will be much higher than budgeted. Of the budgeted annual amount, 75% was spent over the first four months of the year. Even if expenses remain at last year's levels over May – December, additional resources equal to at least 0.5% of GDP will be required. The existing subsidy system is too costly and needs to be improved, particularly considering the actual consumption of utility services. Often, state support is provided to those who do not actually need it. For example, individuals with high incomes in the shadow economy take advantage of this situation, although officially they only earn minimum wage.

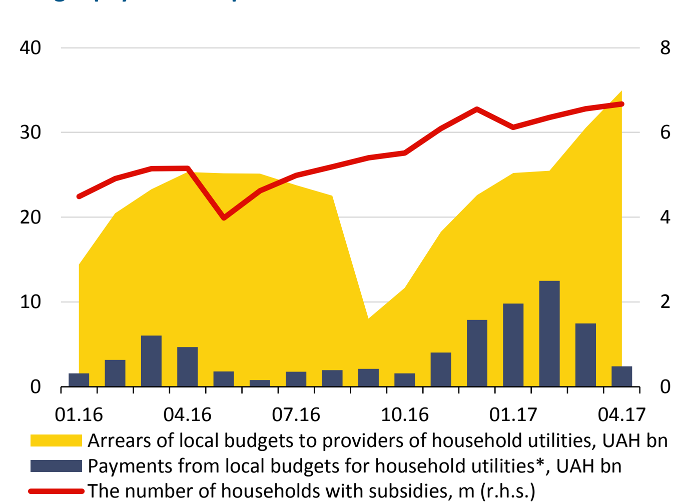
To ease the Budget's burden, starting 1 May 2017, the Cabinet of Ministers of Ukraine lowered the social norms for the consumption of gas, heat, and electricity. The government plans to review other parameters of the subsidy system by the end of July 2017 to improve its targeting.

Subsidies and subventions to local governments for utility subsidies



Source: STSU, SSSU

Budget payments to providers of household utilities



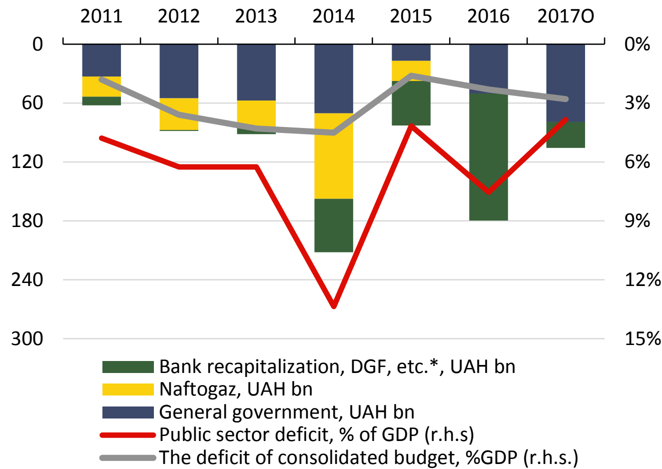
** Including arrears from previous periods.*
Source: SSSU

The quasi-fiscal deficit persists
The quasi-fiscal deficit has not yet been fully eliminated. As expected, UAH 16.6 billion (less than appropriated 1% of GDP) was spent to increase capital at Oschadbank and Ukreximbank in 2017. However, after the government took over PrivatBank, the latter will require additional capital to renew its financial stability. The State spent UAH 107 billion last year and UAH 9.8 billion this year to reinforce PrivatBank's capital. In the future, PrivatBank will need additional capital injections to reach a capital adequacy rate of 7% by 1 January 2018 and 10% by 1 January 2019. As a result, a minimal quasi-fiscal deficit will remain next year. Over the medium term, thanks to a balanced lending policy, the performance of state-owned banks should improve and they should require no further financial assistance.

Before the PrivatBank nationalization, the NBU had gradually reduced its portfolio of domestic government bonds. However, in late 2016, the NBU had to monetize a portion of

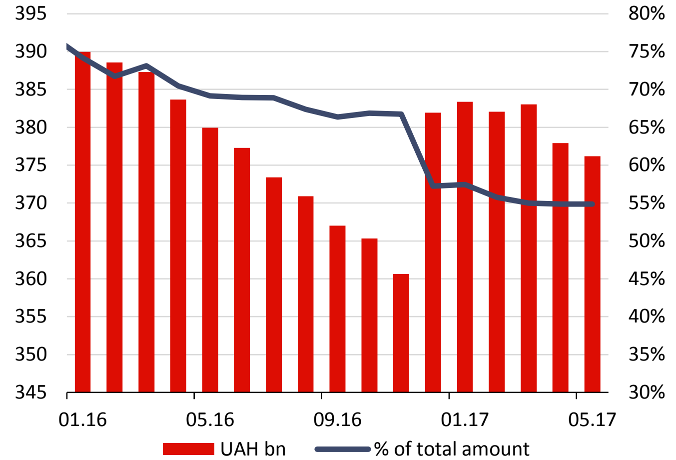
government bonds issued to increase PrivatBank's capital. This allowed the bank to replenish its liquidity, book the required reserves, and replenish cash desks and ATMs. The operation did not have a significant influence on the financial market. The NBU does not intend to increase its portfolio of domestic government bonds and will conduct secondary market operations exclusively to achieve monetary policy targets.

Public sector deficit



** For 2017 – data as of 31.05.2017.*
Source: Ministry of Finance, NBU calculations

Domestic government bonds on NBU books

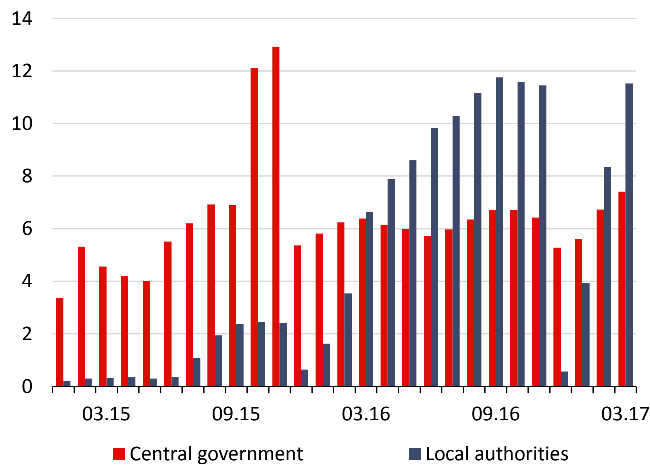


Source: NBU

Local and central budgets spend money unevenly, which poses risks

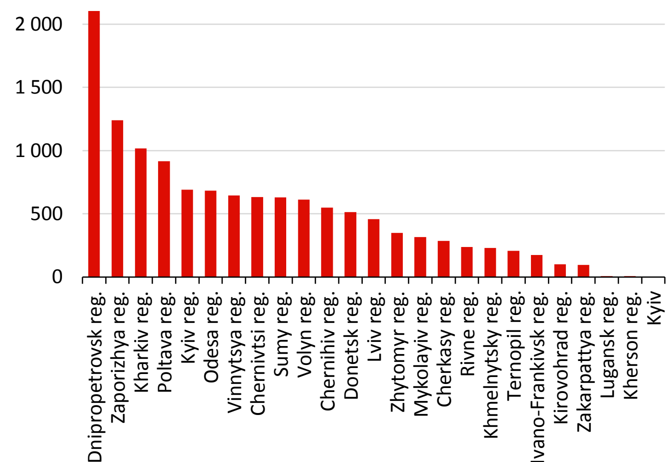
The process of decentralization has resulted in local governments receiving more money to finance current and capital expenditures. In the previous Financial Stability Report, the NBU noted that local governments use only a small portion of those funds due to a limited number of projects and a slow approval process. The remaining amounts are deposited at state-owned banks. Six months on from the previous report, the situation has not changed, while the deposits with banks continue to grow. Funds are being used in big portions over short periods of time, which gives rise to risks for the banking sector and the FX market.

Balance of authorities at banks, UAH billion



Source: NBU

Deposits of local budgets in state-owned banks, by region since January 2017, as of 01.06.2017, UAH millions



Source: STSU

Real sector and related risks

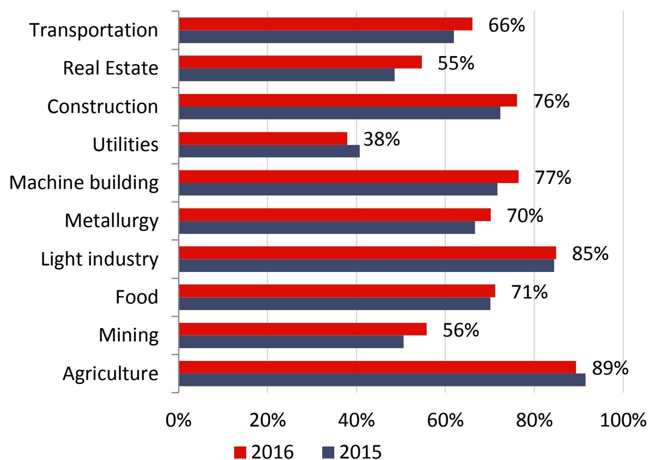
Last year, most Ukrainian companies improved their financial standing. However, the situation in the real sector has deteriorated in early-2017. Industrial production is falling as a consequence of the suspension of trade with the non-government controlled areas (NGCA) in Eastern Ukraine. In addition, global raw material prices have started to decline, mainly for steel and iron ore. Metallurgy and related industries are the most exposed. The cold spring weather will affect agricultural and food-processing industry. At the same time, machinery production, light industry, and gas production have the potential to develop. Leveraging last year's higher profits, companies began investing once again, and this trend has continued into 2017.

The performance of the real sector improved in 2016

In 2016, the real sector's financial performance improved substantially compared with 2014 – 2015. Over the first three quarters of the year, the aggregate EBITDA margin at Ukrainian companies increased to 10% from 3% in 2014 and 6% in 2015[2]. Pre-tax profit increased (or losses decreased) across most industries thanks to exchange rate stability, the lack of which had been the main driver of exchange losses incurred during the crisis. In 2016, the share of profitable enterprises grew in most key sectors.

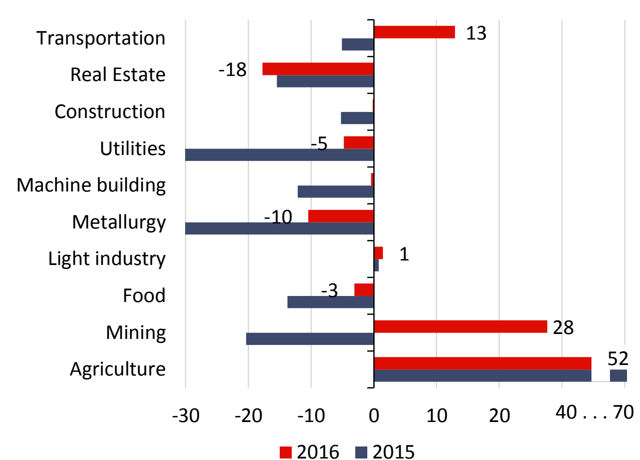
A revival of construction activity reduced losses in that industry: industrial construction output grew 17.4% yoy last year and the construction of housing and roads also picked up. Profits in the transport industry increased as a result of increased rates for cargo and gas transportation and higher volumes of Russian gas transit. The losses in electricity production and distribution declined last year on the back of increased electricity tariffs .

Share of profitable enterprises



By earnings before tax.
Source: SSSU, NBU

Earnings before tax, UAH billion



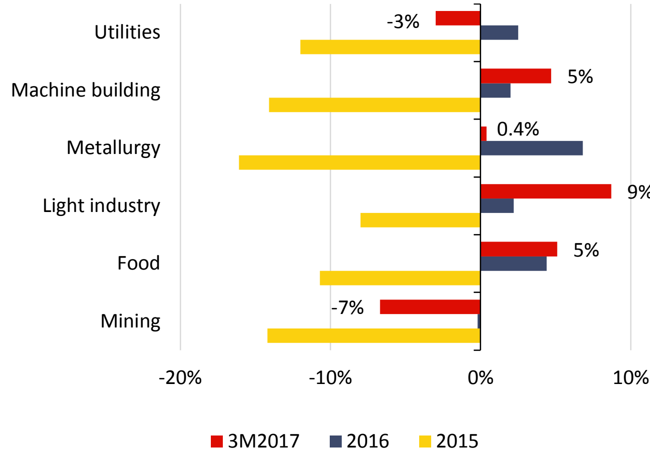
Data for 2016 is preliminary and might be updated.
Source: SSSU, NBU

The suspension of trade with NGCA and a decline in global raw material prices pose major risks for the real sector

In early 2017, risks to the real sector grew materially as the situation in the NGCA deteriorated. Companies located near the occupied territories were regularly forced to halt operations because of military activity. In March, the terrorists seized Ukrainian enterprises in the NGCA and the National Security and Defense Council of Ukraine introduced a trade blockade with the occupied territories. As a result, in Q1 output fell in the metals and coal industries as they have the most enterprises located in the uncontrolled territories. This also affected output across related industries such as ore mining and electricity production. In Q2, the situation deteriorated further: the decline in industrial production accelerated to 6.1% yoy in April.

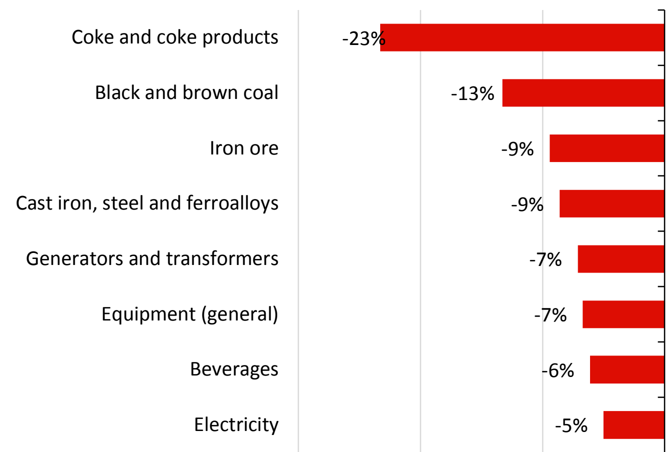
[2]Read more on the financial indicators of individual industries for the period from 2013 to H1 2016 in the December 2016 Financial Stability Report.

Indices of industrial output, % yoy



Source: SSSU, NBU

Indices of selected types of industrial output, 3M2017, % yoy



Source: SSSU, NBU

Unstable operations at Avdiivka Coke Plant are an additional risk for the metals industry and related sectors. The company, which accounts for more than 20% of Ukraine's coke production (used in cast iron production and, to a lesser extent, steel production), is located near the combat zone and often encounters logistical and production problems. Interruptions in its operations significantly affected several other industries.

In Q1, growth in electricity prices allowed the industry to increase revenues 29% yoy despite a 5% decline in output. Enterprises have to find new raw material suppliers abroad as anthracite coal supplies from the occupied territories – and later from Russia – have to be stopped. This makes further growth in electricity tariffs highly probable as a means to recoup the higher cost of coal imported for thermal power plants. Therefore, the NGCA blockade could indirectly affect other industries in the near-term.

Considering these risks, the priority for the metals industry and related sectors in 2017 will be to shift to foreign (non-Russian) suppliers of coal and coke (to minimize the risk of a shutdown at Avdiivka Coke) and introduce technology to reduce coal consumption further.

Changes to global raw material trends enhance the risks outlined above to the metals industry and related sectors. In March – May, Chinese iron ore prices fell by more than three times to USD 58 per ton, and the forecast for the rest of the year is pessimistic at around USD 40 – 45 per ton.

The cold spring has increased risks in the agriculture and food industries

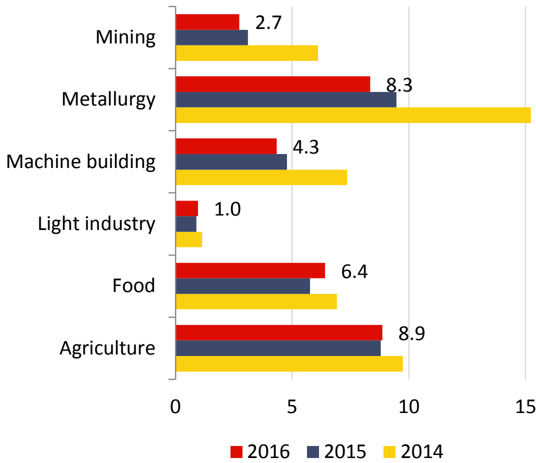
In 2017, crop yields will be lower than last year owing to frosts in April and May. This is the main risk for the agriculture industry and partially for the food industry. The food industry is also at risk through a potential decrease of seed oil exports on the back of a decrease in the area sown with sunflower in Ukraine and lower sales to India, which cut import duties for sunflower, and to China. Those two countries account for 45% of Ukrainian seed oil exports.

Last year, Russian sanctions resulted in a surplus of Turkish food products on the Ukrainian market, which created excess competition with domestic producers. This year, the competition has weakened: the supply of Turkish food products to Russia is gradually recovering by transiting through Belarus.

Light industry has growth potential

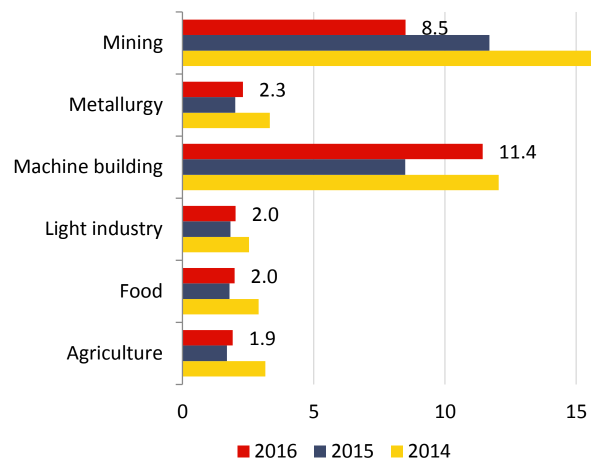
The light industry can increase production through import substitution and growth in exports. The sector's competitiveness is improving thanks to comparatively low production costs, particularly labor costs. In 2016, light industry exports grew 7% yoy and 90% of exports flowed to the European market (+9% yoy).

Export of goods by industries, USD billion



Source: SSSU, NBU

Import of goods by industries, USD billion

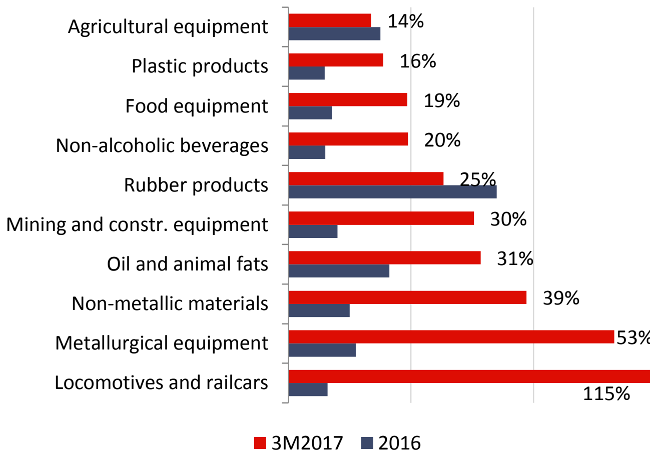


Source: SSSU, NBU

The machinery and gas production sectors show great promise

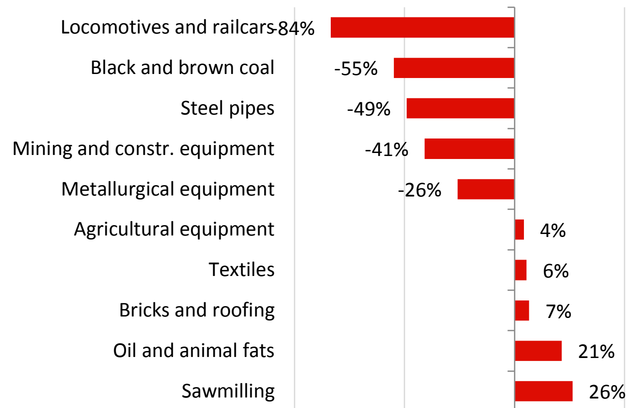
The blockade of the NGCA has had almost no negative impact on the machinery industry, except the production of mining equipment. In other segments, most risks already materialized in 2014 – 2015, especially in terms of economic relations with Russia. Machinery production is now gradually recovering, having grown 2% yoy last year and 4.7% yoy in Q1 2017.

Leaders by production growth rate, yoy



Source: SSSU, NBU

Leaders and outsiders in industrial production (2016 to 2013)



Source: SSSU, NBU

Producers of agricultural equipment and spare parts also have growth potential. This is one of the few sectors where production exceeds pre-crisis levels. Over the medium term, machine-building for the metals and mining industries is expected to grow: metals producers are due to upgrade production facilities to cut costs and reduce their dependence on imported raw materials. Capital investment by Ukrzaliznytsia is driving growth in the production of railcars, although absolute output remains extremely low at just 15% of pre-crisis output. However, this sector could receive a boost if Russia delivers on its promise to withdraw its railcar fleet from Ukraine.

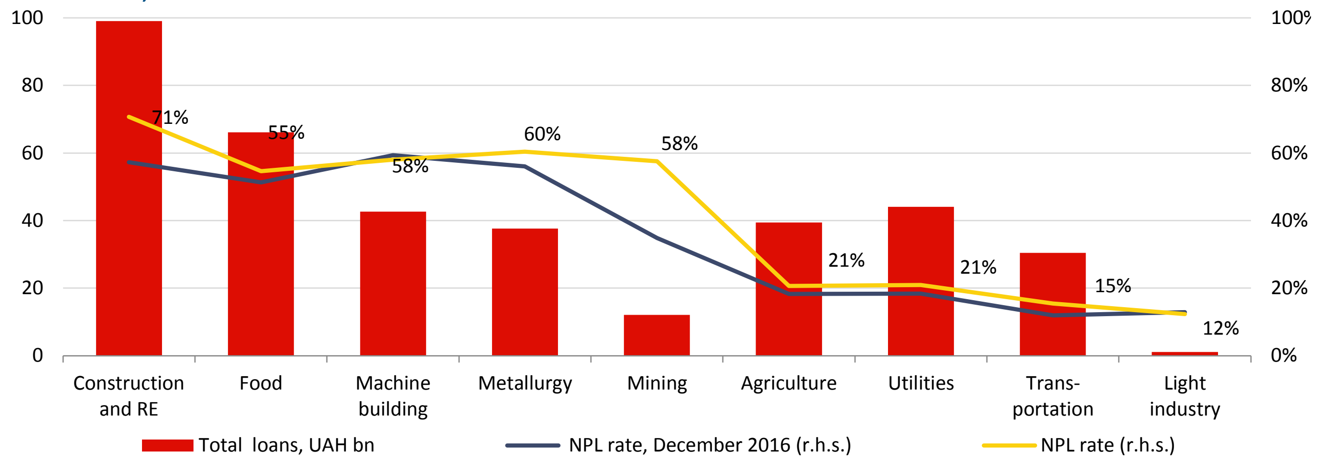
Natural gas production is another promising industry. Late last year, the rate of natural resource rent for gas production decreased almost twice from pre-crisis levels (at a 28% base rate), and most deposits are located outside the combat zone and the occupied territories.

Non-performing loans are lowest in the light industry, transport, and agriculture sectors

The adoption of the new methodology for calculating non-performing loans (NPLs) did not have a significant impact on the volume and share of NPLs in most industries. Trade showed the largest growth in NPLs, from 21% to 65%, mostly the result of non-operating companies with loans recognized as NPLs due to a lack of funds.

In March, NPLs held a 46% share of the loan portfolio at real sector companies (excluding Privatbank). This represents a 6 pp increase versus the start of the year before the calculation method was changed. The share of NPLs is lowest in light industry, the transport industry, and agriculture, while construction and metals industry have the highest shares.

NPLs of NFCs, March 2017

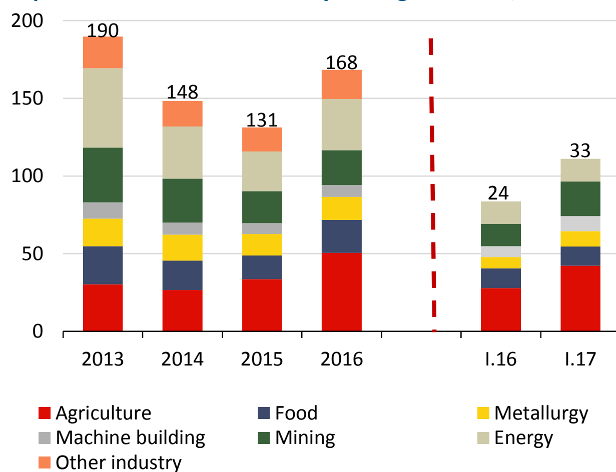


Source: NBU

Enterprises' own funds is the main source of capital investment

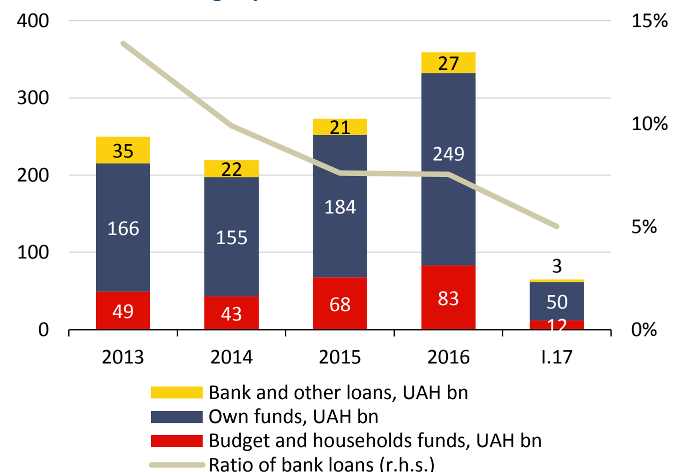
Having generated higher profits, companies have increased investment activity. Capital investment grew 18% yoy last year and 21% yoy in Q1 2017. This year, the mining and agriculture sectors showed the highest growth rates: 50% and 61%, respectively. Own funds is the main source of investment financing. The share of bank loans as a means of funding capital investment decreased from 14% in 2013 to 5% in Q1 2017. Profits across heavy industry and agriculture are likely to drop slightly this year. However, the decline will be temporary and companies will not freeze current investment projects but will finance them by borrowing, primarily using bank loans.

Capital investments in industry and agriculture*, UAH billion



** At comparable prices of 2016.*
Source: SSSU, NBU

Sources of financing capital investment



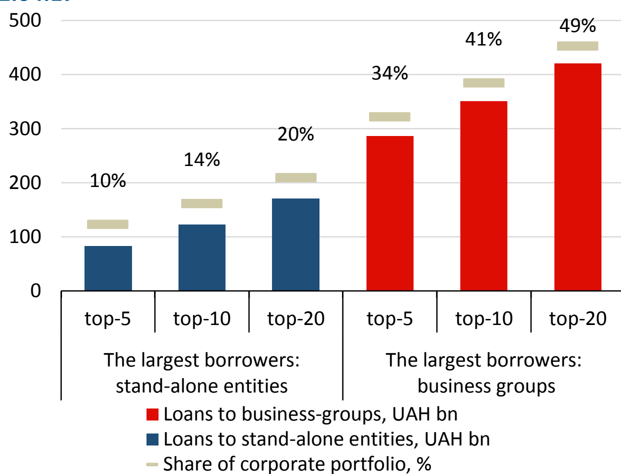
Source: SSSU, NBU

Box: Loan concentration risks require stricter controls

The Ukrainian banking system has an extremely high exposure concentration, which carries significant risks for financial institutions. In this setting, problems of some financial and industrial groups have material impact upon liquidity and solvency of the sector overall. Risks of high exposure concentration have largely materialized during the 2014 – 2016 crisis. State-owned banks suffered the biggest losses because of high concentration.

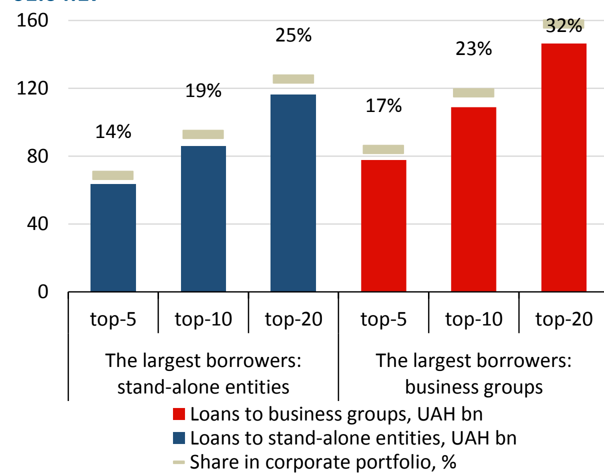
Top-20 groups of borrowers bringing together companies under control of the same beneficiaries account for 49% gross and 32% net (after provisioning) corporate banking loans. In Ukraine, the largest groups of borrowers are business groups that have complex, often opaque structures, a common beneficiary, and, as a rule, assets across several industries. Typically, the ties between companies within a business group are unstable: groups regularly set up new legal entities and can transfer the operations center and financial flows from one company to another. Lending to members of these groups brings elevated risks both for individual banks and the entire banking system, since financial difficulties at one line of the group's businesses can cause suspension of the debt servicing for the entire group.

Gross loans to stand-alone entities and business-groups* as of 01.04.17



** Only privately-held groups.*
Source: NBU

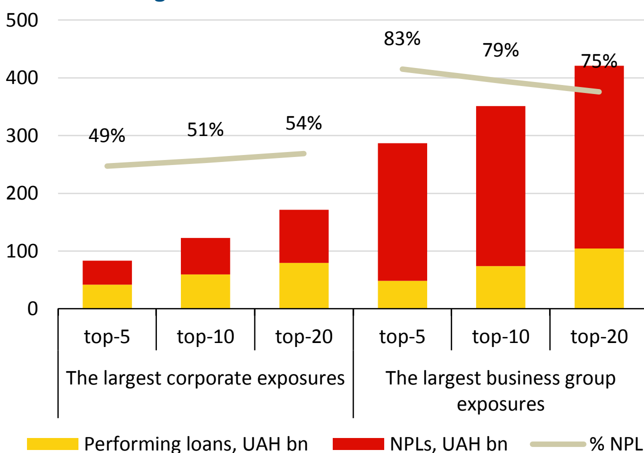
Net loans to stand-alone entities and business-groups as of 01.04.17



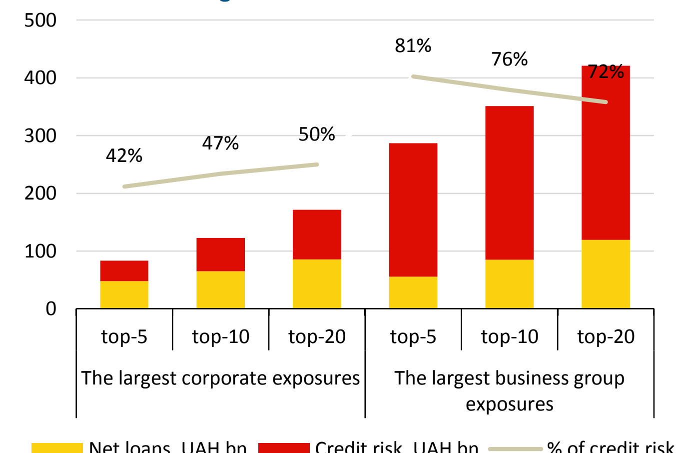
** Only privately-held groups.*
Source: NBU

The crisis in 2014 – 2016 saw those risks materialize: legal entities belonging to business groups showed higher default rates than other businesses. As of 1 April 2017, the top-20 largest groups of borrowers had NPL rate of 75%, substantially higher than the system-wide average of 55%.

NPLs of the largest borrowers as of 01.04.17*



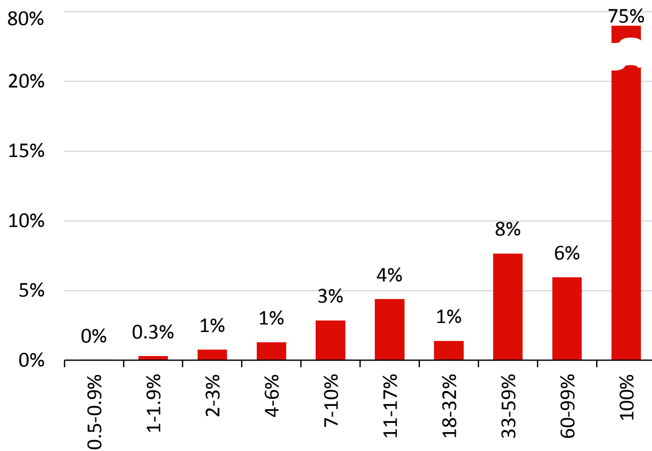
Credit risk of the largest borrowers as of 01.04.17*



** NPL rate and amount of credit risk are calculated in accordance with NBU Resolution No. 351 dated 30 June.16 On Credit Risk Assessment.*
Source: NBU

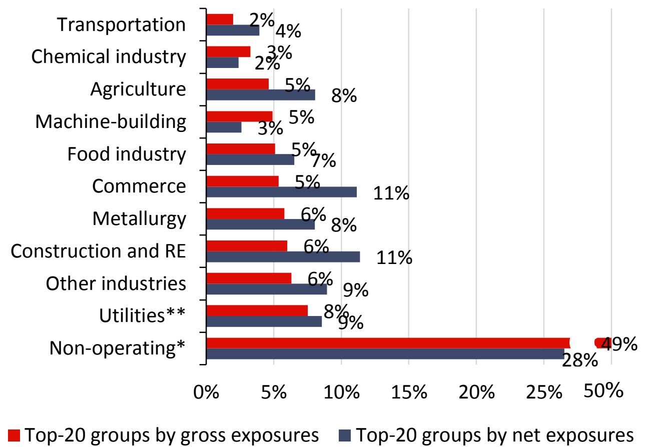
Business groups have been able to accumulate loans for two main reasons. The first involved difficulties in assessing ties between borrowers within a group and a group's total debt load, as well as – at times – a bank's unwillingness to conduct the assessment. The second involved issuing loans on non-market terms, including lending to related parties by banks belonging to the same business group as the borrowers. Related party lending specifically creates additional risks for the banking system. Banks that issued these types of loans faced the double-edged sword of a high loan portfolio concentration and low borrower quality, as 49% of business groups' bank debt was accumulated on the balance sheets of non-operational companies.

Probability of default distribution of borrowers belonging to top 20 business-groups (debtors)



Source: NBU

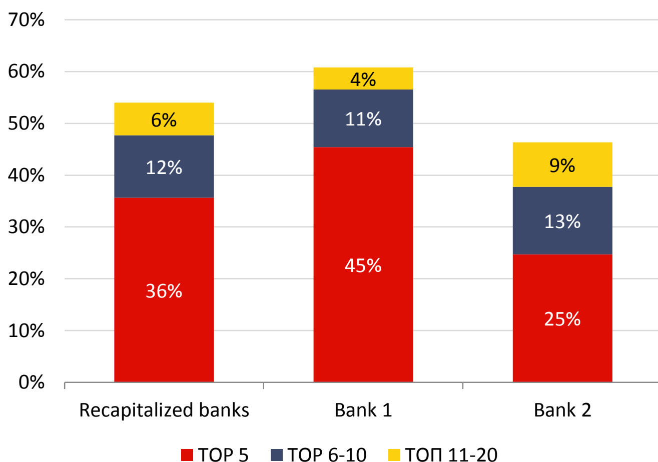
Industry break-down of borrowers belonging to top 20 business-groups (debtors)



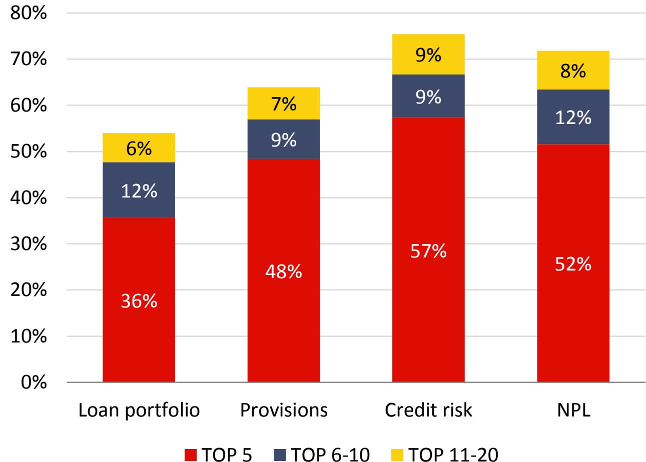
** Non-operating – companies with no regular operating activity.*
Source: NBU

Problem of large exposure is especially acute for the two oldest state-owned banks, which focused on lending to companies and groups related to business interests of politically exposed persons. The ratio of the largest groups-private borrowers in total loans is 56% for one bank and 38% for another. Quality of loans to the largest borrowers is much lower than for corporate loan portfolio overall: the NPL rate to Top-5 largest groups-borrowers is 30 pp higher than average and reached 94% for the two banks.

Loan portfolio concentration of the recapitalized state-owned banks as of 01.04.17*



Share of the largest business-groups in the loan portfolio of the recapitalized state-owned banks as of 01.04.17



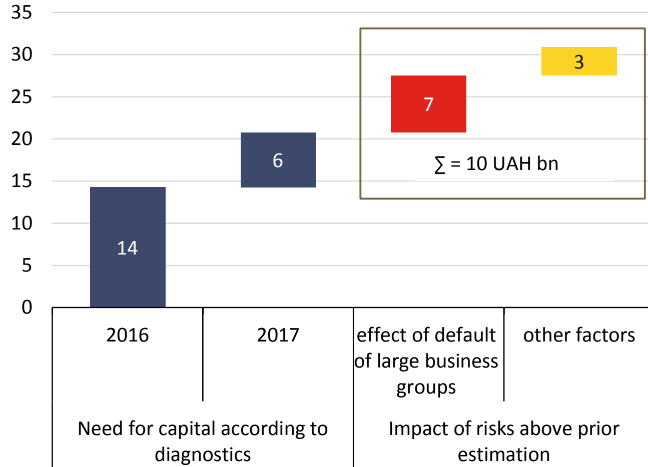
** Share of the top 5, 10 and 20 borrowers and privately-held groups of companies in the credit portfolio, credit risk, loan provisions and NPLs of the recapitalized state-owned banks.*
Source: NBU

Diagnostics of 2015 revealed additional capital need at the two largest at that time state-owned banks of UAH 20.8 billion, of which UAH 6.5 billion were required in 2017. However, the credit risk assessment by the banks in early 2017 showed that these banks need another UAH 10.1 billion of capital. Thus, the two banks were recapitalized in Q1 2017 with UAH 16.6 billion in total.

Additional capital came primarily because of defaults at five business groups, as companies belonging to them borrowed from both banks. The base-line stress test scenario assumed that credit risk for these groups would increase (which was taken into

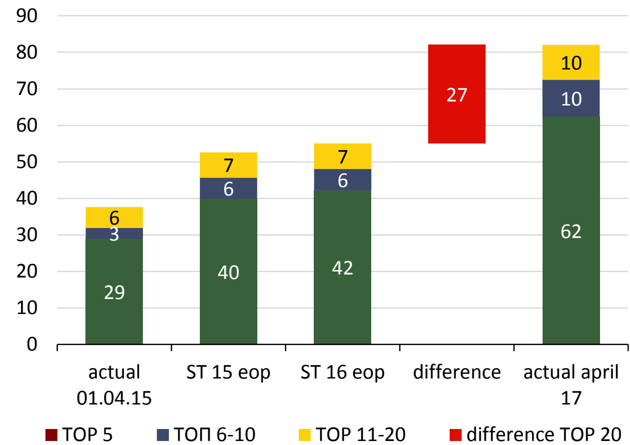
account while calculating additional capital needs in 2015), but the groups would remain solvent and stay current on their debt. However, in 2015 – 2016 these business groups suspended to service loans at state-owned banks. As a result, the state-owned banks had to recognize these loans as defaulted in early 2017. Because of high loan concentration for these groups, increased related credit risk entailed additional capital need of UAH 6.8 billion.

Forecasted and actual capital need for Oschadbank and Ukreximbank, UAH billion



Source: NBU

Total credit risk (provisions*) for the largest exposures of the two state-owned banks, UAH billion**



** After 19.11.15 (Resolution No. 806) NBU separated credit risk for regulatory purposes and impairment provisions for accounting purposes.*
*** Stress-test calculations (ST) and actual figures.*
Source: NBU

As of today, the problem of group defaults and non-operational companies has nearly been resolved. After the tests in 2015 – 2016 and the adoption of the *Regulation on Credit Risk Assessment* in early 2017, banks have recognized the real quality of issued loans. Losses incurred through additional provisioning for these assets were reflected in banks' reporting.

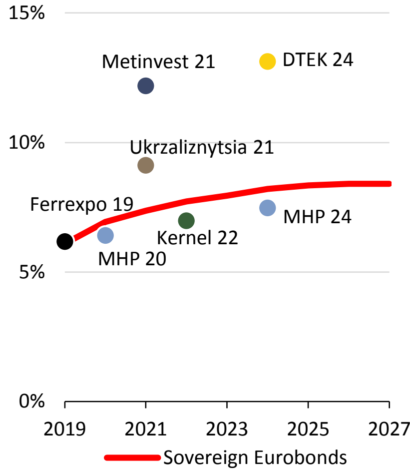
NBU strives to minimize sector credit risk concentration. New requirements for calculating credit risk call for considering the information about the debt total amount of companies operating as part of groups under common control. Starting in 2017, banks must consider the risks of the borrower's business group and additionally use the consolidated financial reporting of the group's parent company when calculating a company's credit risk. Starting in 2018, all bank borrowers with a loan over UAH 200 million must have audited financial reporting under IFRS. The NBU is working to improve the criteria for borrowers' ties to ensure an accurate calculation of the maximum credit risk per counterparty. The criteria will comply in full with Basel standards. In addition, in 2017, the NBU will finalize the list of business groups that are owners and/or borrowers of banks and will conduct consolidated oversight over the banks, taking into account the financial standing and the solvency of those groups.

Box: Foreign capital markets are open for Ukrainian public companies again

External markets will become the main source of long-term borrowing for large companies

Global debt markets were off limits to Ukrainian public companies from 2014 through 2016. Prices for sovereign Eurobonds fell dramatically and yields rose in the wake of the military conflict and the economic crisis. The drop in global commodity prices that took place in 2015 cut into the profits of many companies and increased their debt burden and risk premiums. Borrowing became practically impossible. As a result, Ukrainian corporations did not take on new external debt and instead restructured existing debt portfolios. Most public companies successfully restructured their Eurobonds, postponing the bulk of repayments from 2018 to 2021 or later.

YTM for sovereign and corporate Eurobonds (10.05.2017)

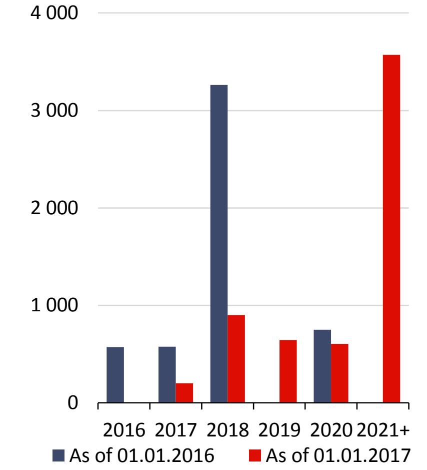


Source: Bloomberg

YTM, Euro-Cbonds Sovereign Ukraine Index

Source: Cbonds

Eurobond redemption schedule for public companies, USD million

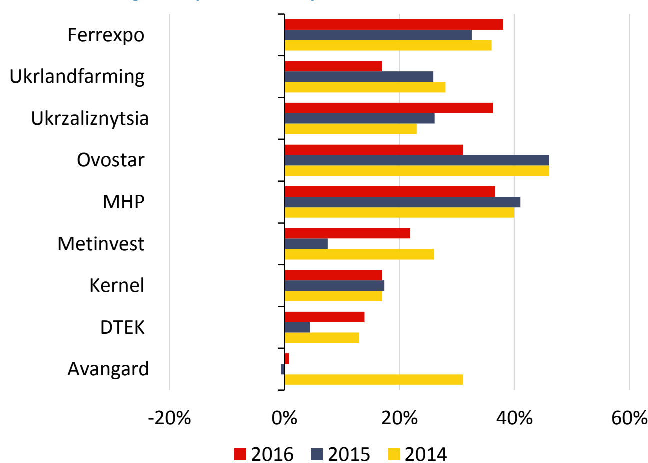


Including new Eurobond issues by Kernel and MHP.
Source: Corporate financial reports

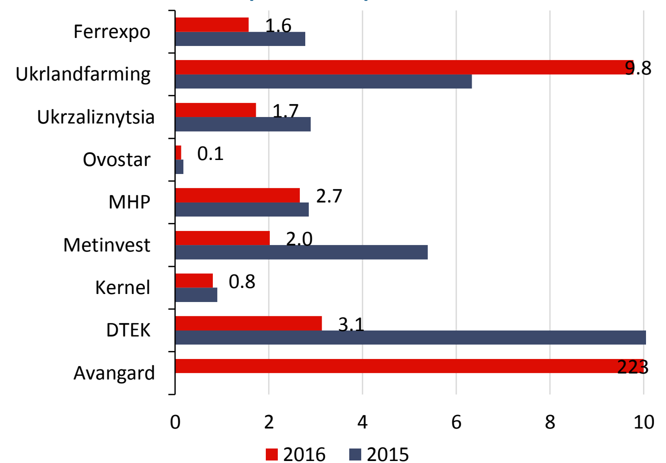
Last year, the Ukrainian economy gradually started to recover. Those Ukrainian companies that were transparent before the crisis and that improved their business performance through the crisis regained access to global debt markets. Since the start of this year, corporates have issued two Eurobond series – Kernel and MHP each attracted USD 500 million (MHP intends to use most of the money to settle existing debt). The current yield on those papers is even lower than the yield on sovereign Eurobonds. This shows that transparent companies that already have strong financial performance and effective business models are able to attract financing abroad with relative ease.

The profits of many public companies decreased during the crisis, which damaged their financial standing. Last year, many companies rallied amid economic growth and a rise in global commodity prices, especially for grains and metals. EBITDA grew, while debt retreated from critical levels. These companies will be able to attract foreign debt on favorable terms, if needed.

EBITDA margin of public companies



Net debt to EBITDA of public companies



For Kernel reports for financial year were used. Fiscal year ends 30 June.
Source: Corporate financial reports

Real estate market and related risks

Supply continues to grow on the real estate market. At the same time, demand is limited and there are no material factors that would drive growth in the near-term. This has boosted excess supply, which is accumulating over time. The volume of lending is too small to stimulate demand and influence prices. The excess new supply will depress prices further and will pose risk mostly for developers, while a deceleration of demand could result in unfinished construction projects and postponed completion. Banks should diligently assess risks when lending to both buyers and developers of property.

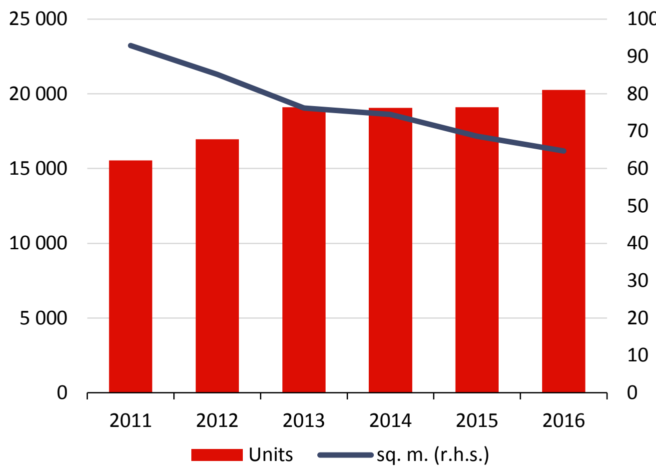
The supply of housing is growing in the capital and across most regions

Last year, 20 300 apartments were built in Kyiv, a record since the early 2000s. In Q1 2017, the number of apartments built doubled from Q1 2016. According to data from intermediaries, in mid-May apartments were being offered in 265 newly constructed buildings, up from 230 in November 2016. The average area for new apartments in Kyiv decreased to 64.7 sq. m. from 68.6 sq. m. in 2015. One-room apartments prevail in the structure of Kyiv's new housing supply, accounting for 53% in Q1 2017.

In Q1, the supply of new housing also grew materially in many regions. In 2016, Kharkiv, Volyn, and Vinnytsia oblasts generated the highest growth rates in terms of supply. Meanwhile, in Lviv housing construction volumes decreased last year after soaring in 2014 – 2015.

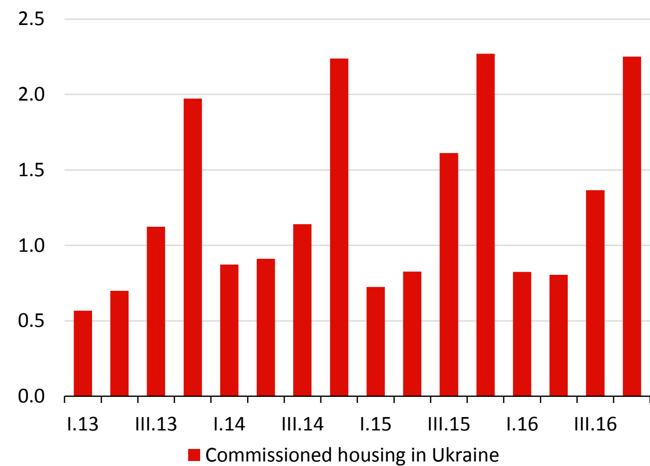
Overall, housing construction is likely to continue growing. Last year, 1 514 building permits for construction of apartment buildings were issued in Ukraine, 38% more than in 2015. The majority of the housing built under these permits is to be supplied to the market in 2017 – 2018.

New supply and average area of dwellings in Kyiv



Source: SSCU

New housing supply in Ukraine, millions of sq. m.



Source: SSCU

Demand for housing is limited, lending remains low

With households increasing spending at a faster pace than incomes are growing, macroeconomic grounds for growth in housing demand are absent. In 2016, mortgage lending rose. However, the growth was relatively minor (less than UAH 1 billion) and had almost no influence on demand. Banks do not expect the situation to improve in 2017 (read more in the *Mortgage Lending* box).

In these conditions, demand for residential real estate is dependent on two demographic groups. The first covers middle income individuals who wish to improve their living conditions and are afforded this opportunity as prices drop in the USD equivalent[3]. This group also includes individuals who lived with their children or parents and who now have the ability to move into their own home. This group typically sells their old property to buy new property or to invest in new builds. According to the Ministry of Justice, in 2016 the number of purchase-and-sale agreements on Kyiv's secondary market increased 20%.

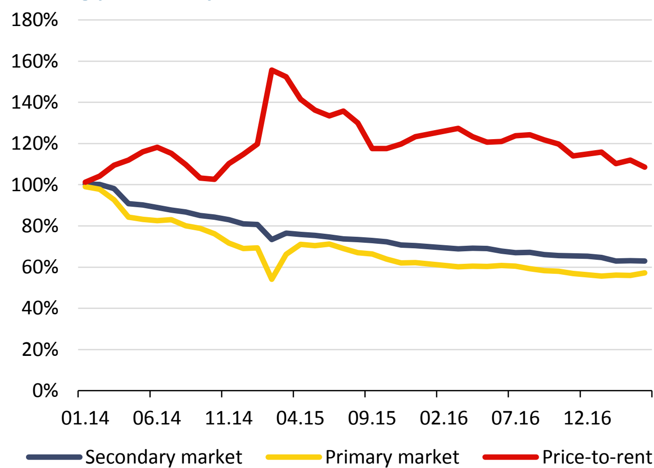
The second group includes individuals who buy new housing as an investment. They expect residential real estate to offer higher yields in the USD equivalent than FX bank deposits or to be a more secure investment. Other FX investment instruments are undeveloped or unpopular. The popularity of apartment purchases for investment purposes is clearly visible in the e-declarations submitted by national and local government officials. The two demographic groups noted above alone cannot drive demand for housing and for increased housing construction.

Supply exceeds demand and USD-denominated prices are continuing to fall

A growing number of new buildings and limited demand for new apartments are creating excess housing supply. Signs of the excess supply include: developers marketing property with large discounts for payment in full (to a maximum of 20%, up from 5% – 10% last year), construction companies focusing on small apartments, and construction companies partnering with banks to offer preferential rate loans.

The housing oversupply is pushing prices downwards. In April, the average price per square meter fell 5% yoy (USD equivalent) on Kyiv's primary market and 9% on Kyiv's secondary market. Primary market prices decreased 7% yoy in Lviv and 10% yoy in Odesa. At the same time, over the same period, the average rent in Kyiv grew 3%, which pushed the price-to-rent ratio down to pre-crisis levels.

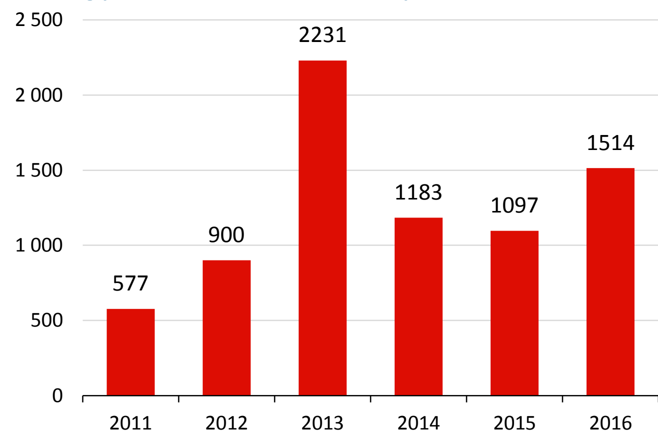
Housing prices in Kyiv, December 2013 = 100%*



**In dollar equivalent.*

Source: Real estate agencies, NBU

Building permits for construction of apartment blocks, units



Source: SSCU

The housing market oversupply will persist in the coming quarters

Ukraine's housing market differs from the markets of Central and Eastern Europe and the Baltic states. In most countries, low interest rates, income growth, and insufficient supply of new housing creates price bubbles. In Ukraine, however, developers bear the risk in the event of housing oversupply.

[3]In Ukraine, real estate prices are linked to the US dollar. On the secondary market this link is direct; the primary market indexes hryvnia prices in the event of significant exchange rate fluctuations of the US dollar. At times, the price is contractually linked to the US dollar.

The excess housing supply will persist, supported by several factors. First, a significant amount of housing is currently being built. Second, intermediaries are signaling the presence of deferred supply. Some secondary market sellers are waiting for an improvement in price conditions to put their property up for sale. Similarly, owners of real estate purchased as an investment are looking for a price increase.

Legislative changes to include displaced individuals and ATO participants in the government housing support program will not have a significant impact on the housing situation (owing to the substantial bureaucratic requirements to receiving those benefits).

Up to now, growth in housing construction has been supported by the lax regulation of the industry.
The situation could change thanks to the Law *On Amendments to Certain Legislative Acts of Ukraine Regarding the Improvement of Urban Development,* which came into effect on 10 June. The new law introduces the means to fight illegal construction and increases accountability for developers.

The commercial real estate market recovers
In 2016, almost 170 000 sq. m. of new retail commercial real estate supply entered the market in Kyiv, or nearly 20% of the city's total commercial real estate. This constitutes the largest growth since 2008. The market has not yet fully absorbed the new supply: according to Colliers, an indicator of vacant trade premises doubled over the year to 10% in December 2016. In 2017, growth in the retail commercial real estate market will be restrained by household income and by spending increasing at a slow pace, as well as by developers' heavy leverage. Most projects announced for 2017 – 2019 are most likely to be completed closer to the end of that period.

Households and related risks

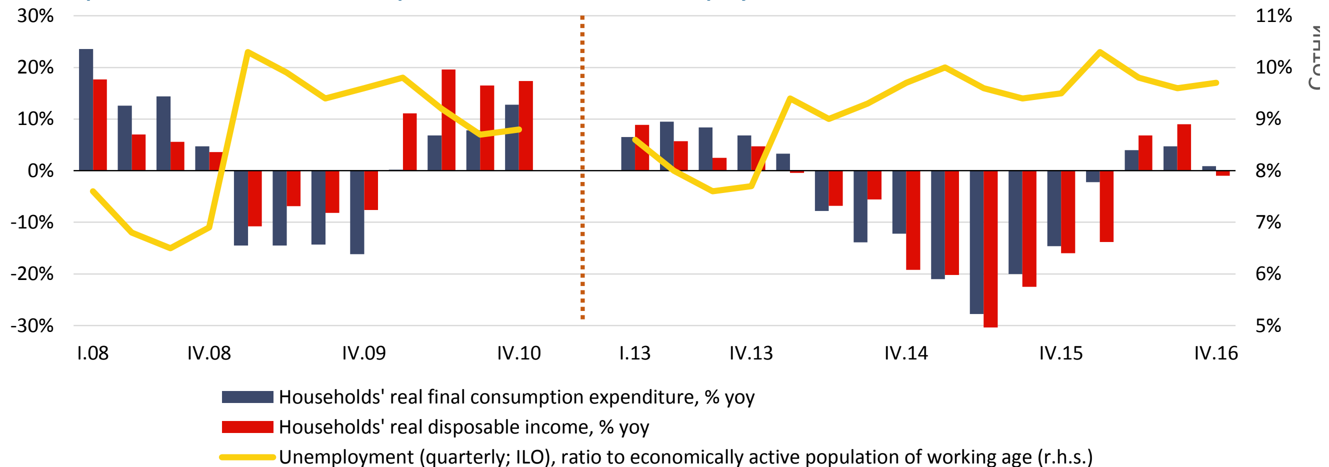
In 2016, real household disposable income grew for the first time in three years. However, the growth rate was minor and much lower than after the 2008 – 2009 crisis. Nominal spending increased faster than income for four consecutive years. As a result, households' financial savings declined, for the first time in many years. In addition, income inequality has increased: low-income households have resorted to using additional resources to maintain consumption levels, while high-income ones account for the majority of bank deposits. Growth in nominal incomes allowed households to continue repaying liabilities, primarily bank loans. Debt burden indicators are low, which gives grounds for resumption of retail lending in the near-term. The potential recovery would be driven by an increase in wages, which account for almost two-thirds of households' income growth.

Real household income have started to grow slowly

Last year, real disposable household income grew 0.3% yoy. That marks the first increase in last three years, even though the pace of growth is substantially lower than the post-crisis growth rate in 2010. The growth in real income was driven by a significant decrease in average inflation and an increase in nominal incomes primarily due to wage growth. However, this was not driven by rapid economic growth, but rather by the government's decision to raise the minimum wage in May and December and by a nearly twofold decrease in the SSC rate. Wages grew for public sector employees and employees of nearly half of all real sector businesses.

Incomes stopped growing in Q4 2016 in response to several government decisions. These included a reduction of the advance pension payment in December for January and a halt to pension payments to so-called 'pension tourists', primarily internally displaced persons.

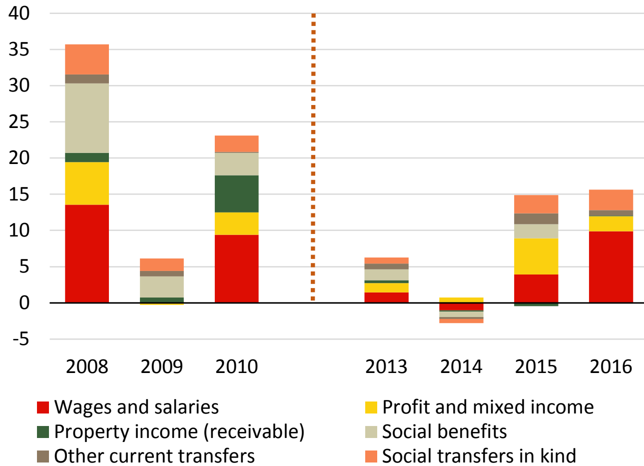
Real disposable income, consumer expenditures and level of unemployment



Source: SSSU, NBU staff estimates

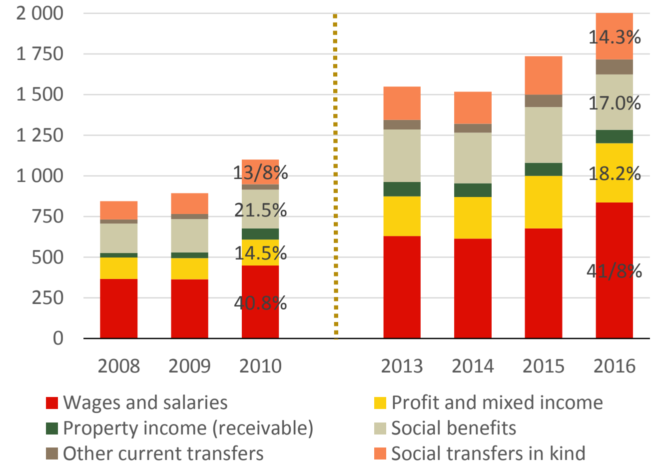
The structure of household incomes also changed substantially. Last year, the share of wages rose to 41.8%, 1 pp above the pre-crisis level. The share of social benefits decreased. This trend continued in 2017: on average in Q1, nominal wages grew 36.8% yoy while real wages increased 20.1% yoy. That rapid pace of growth was driven, again, by government actions, particularly by the decision to double the minimum wage at the start of the year. A higher share of wages in the household income structure has several advantages: reduced pressure on public finances, better work incentives, and greater potential for households to deposit money in banks, take loans, and make use of other financial services. Still, in 2016 the share of wages as a percentage of GDP (36.8%) was far below the pre-crisis level of 50.0% in 2013.

Contributions of the components of households' nominal incomes to their total change, pp



Source: SSSU, NBU staff estimates

Structure of households' nominal income, UAH bn.

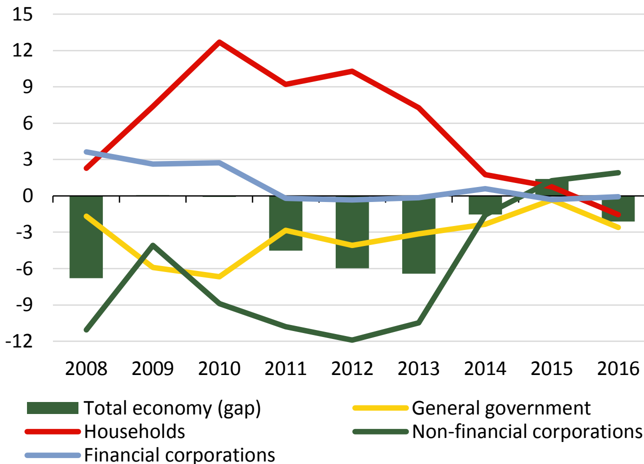


Source: SSSU, NBU staff estimates

Financial standing of households has deteriorated

Last year, nominal current expenditure increased 17.3%, or 1.9 pp faster than the rate of income growth. Expenditure has been growing at a faster pace than incomes since 2013. As a result, in 2013 – 2015, the annual growth rate of household financial savings[4] decreased gradually and last year fell to a negative for the first time in many years at UAH -9.3 billion. Similarly, last year households also actively tapped their savings to fuel spending. For example, in 2016 net sales of FX by individuals rose 2.1 times yoy to the equivalent of UAH 63.2 billion.

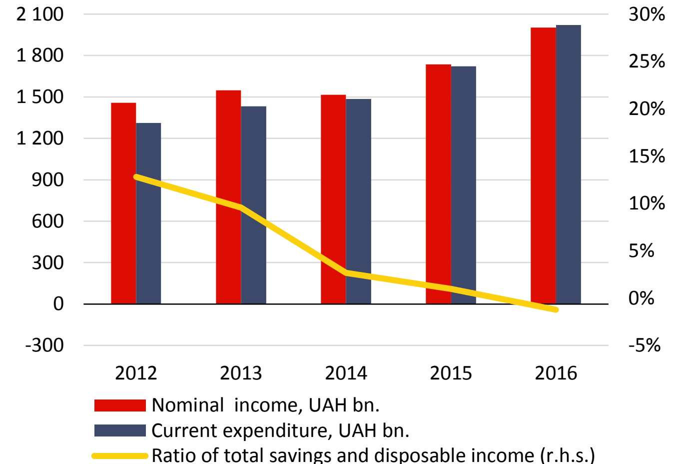
Growth of financial resources by sectors of economy*, %/GDP



** Calculation on data of the category of "Net lending (+)/net borrowing (-)" of System of National Accounts.*

Source: SSSU, NBU staff estimates

Households' incomes, expenditure and propensity to save



Source: SSSU, NBU staff estimates

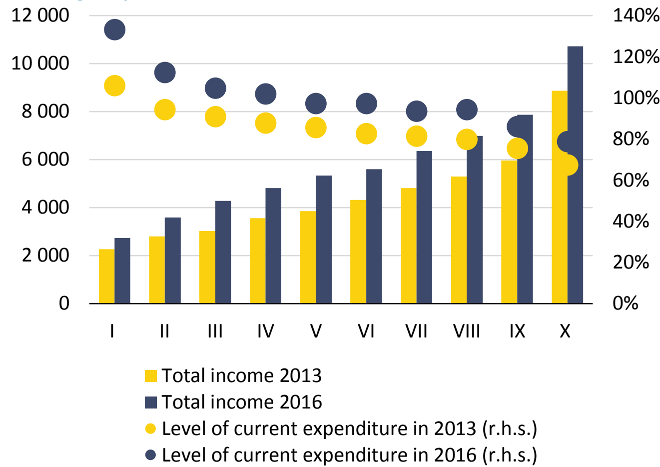
Expenditure grew at a faster-than-average pace in the first decile income group. This resulted in a decrease in savings for 60% of households (I-VI decile groups). According to a survey by GfK Ukraine, in Q4, 52% of households lacked income to cover/had income just enough to cover current consumption. Only 16% saved money without an impact on consumption. At the start of the crisis in Q1 2014, this indicator stood at 27%.

Last year, some groups of households required additional resources to maintain their usual consumption level, in particular by borrowing from individuals with higher incomes or

[4] According to the 2008 System of National Accounts (SNA), savings include: on the financial assets side cash, deposits, securities, loans, technical insurance reserves (including at insurance companies and non-state pension funds), and other receivables; and on the non-financial assets side fixed assets, tangible current assets, valuables, and intangible assets.

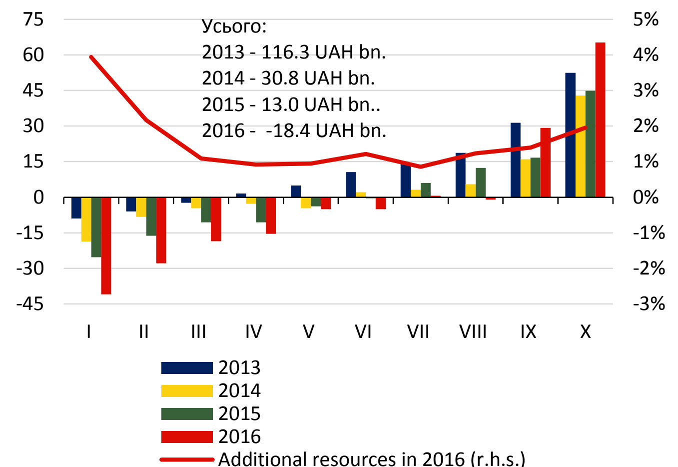
through overdrafts on salary cards. This was especially true for income decile groups I-II. These trends drive high demand for payday microloans and on-demand savings in banks, particularly low-interest demand accounts. At the same time, high-income households (decile groups IX-X) have been able both not to limit consumption expenditures, and also save money. This group of households form the deposit base, which last year grew for the first time in three years, and they will be the drivers of future growth.

Households' average income and expenditure per month by decile groups, UAH



Source: SSSU, NBU staff estimates

Growth of households' total savings by decile groups, UAH bn.*



** Difference between households' nominal income and current expenditure, distributed by decile groups in the relevant structures of Households' living conditions survey.*

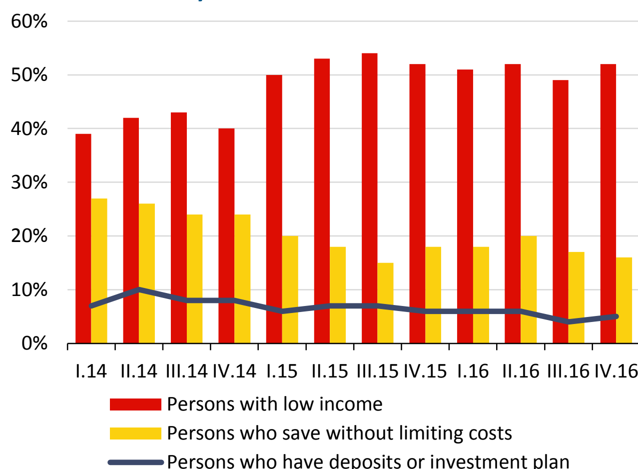
Source: SSSU, NBU staff estimates

The household debt burden has decreased

Households are gradually repaying financial liabilities, 92% of which are bank loans. This is mainly driven by the increase in wages and other monetary incomes, as well as by the limited availability of new bank loans for households. As a result, last year the ratio of debt to household disposable income decreased 3 pp to 11%. The household debt burden is already low. According to a recent bank lending survey (link), 88% of financial institutions expected consumer lending to grow.

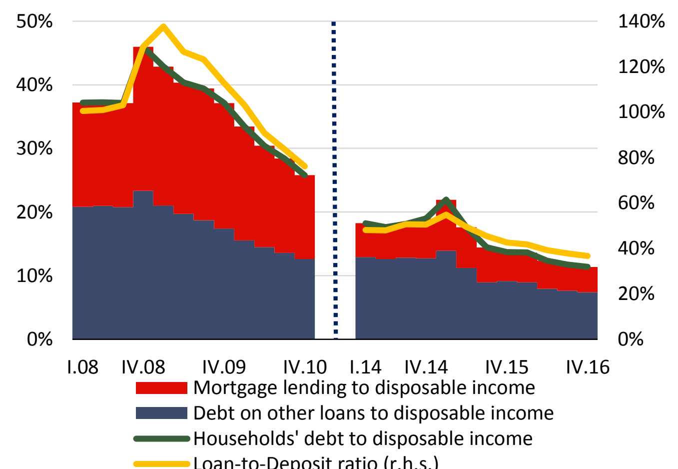
The gradual debt repayment by households has also another consequence. It increases the weight of households as creditors of banks. Last year, the Loan to Deposits (LTD) ratio for households declined 6 pp to 37%. That level is a sign of the potential for growth in consumer lending.

Households' ability to save



Source: GfK Ukraine.

Debt burden on the household sector



Source: SSSU, NBU staff estimates

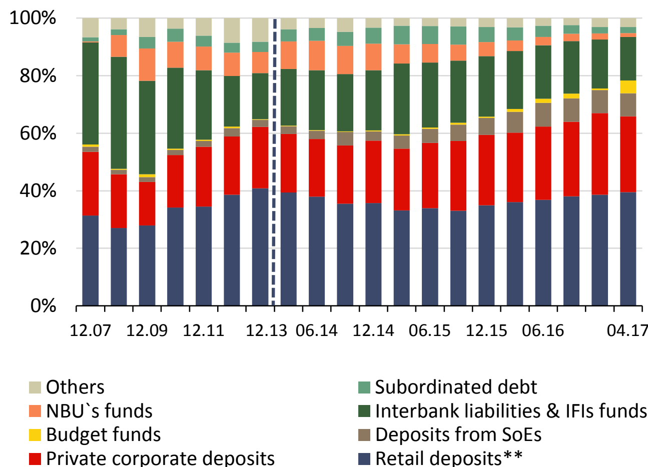
Banking sector conditions and risk

Funding

Resources from Ukrainian households and domestic businesses are growing as a share of banks' liabilities. Demand for FX funds is low, pushing down external foreign liabilities and causing FX deposits to stagnate. However, there is liquidity risk stemming from the short-term nature of domestic funding sources. To mitigate that risk, banks will need to widen the spread between short- and long-term deposit rates to encourage inflow of longer-term deposits. Depositors have more confidence in state-owned and foreign-owned banks, aside from Russian banks. State-owned banks rely heavily on the deposits of local governments and state-owned enterprises. In addition, banks offer high rates on these deposits, which cuts into their own profits.

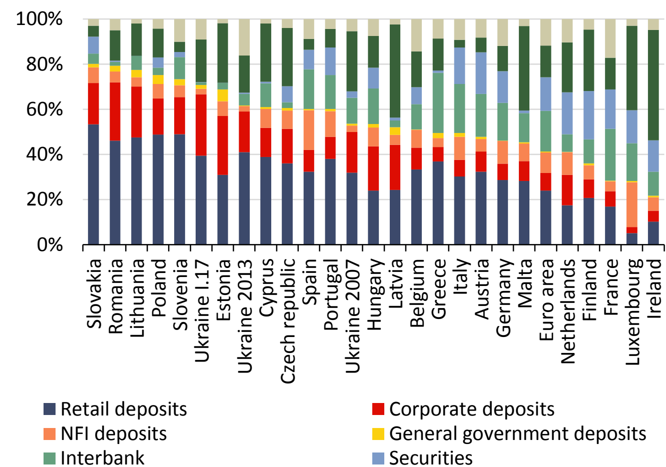
The weight of domestic funding is on the rise. The share of resources from households and businesses in banks' funding bases has increased. As of late April 2017, corporate and retail deposits accounted for 34% and 40% of banks' liabilities, respectively. Customer deposits are growing, as was the case after the 2008 crisis. Today, retail and corporate deposits make the core of banks' funding, and their weight is to remain high. Overall, the funding structure of Ukrainian banks is similar to those of Central and Eastern European banks.

Structure of bank liabilities*



** Interest accrued included; ** Certificates of deposit included.*
Source: NBU

Structure of banks' liabilities by country as of 01.04.2017



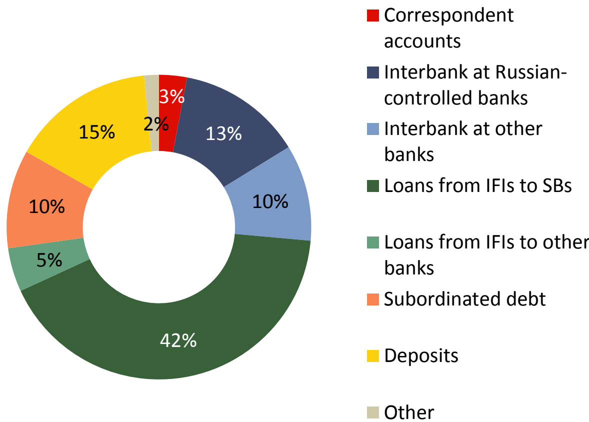
** From non-residents.*
Source: ECB, NBU

Demand for external and domestic FX funding is weak since banks have limited options to deploy FX liquidity. The gross external debt of banks decreased 30% last year to USD 9 billion. Loans from international financial institutions to state-owned banks and loans from foreign parent banks to their Ukrainian subsidiaries are the main components of external debt. Domestic FX deposits stood at USD 13.5 billion as of the end of 2016, exceeding banks' external borrowings. Demand for FX funding is projected to be low over the next few years.

Most deposits are short-term, which creates liquidity risk

A drop in the ratio of external funding in banks' liabilities decreases banks' dependence on external debt markets and the willingness of parent companies to support their subsidiaries. On the other hand, this worsens the maturity composition of liabilities since domestic deposits are mainly short-term. As a result, banks will have to hold most of their assets in a highly liquid form (cash, domestic government bonds, and NBU certificates of deposit) to be able to finance unexpected outflows.

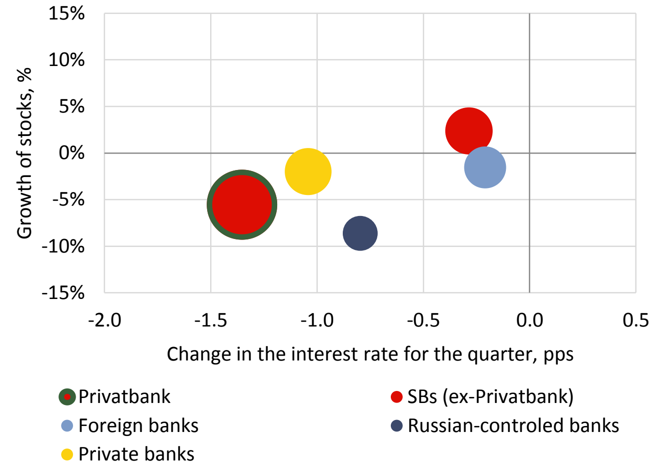
Components of external funding* as of 01.05.2017, UAH billion



** Liabilities to non-residents.*

Source: NBU

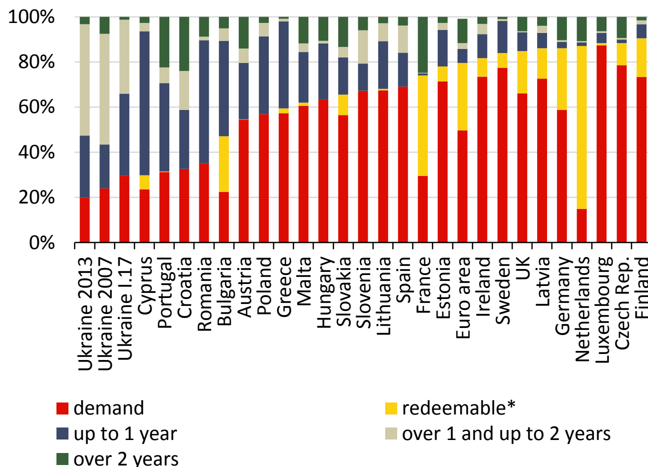
Retail FX deposits* and change in interest rates in Q1 2017



** The area of a circle reflects the volume of new deposits in the quarter; the rate is the weighted average for the quarter.*
Source: NBU

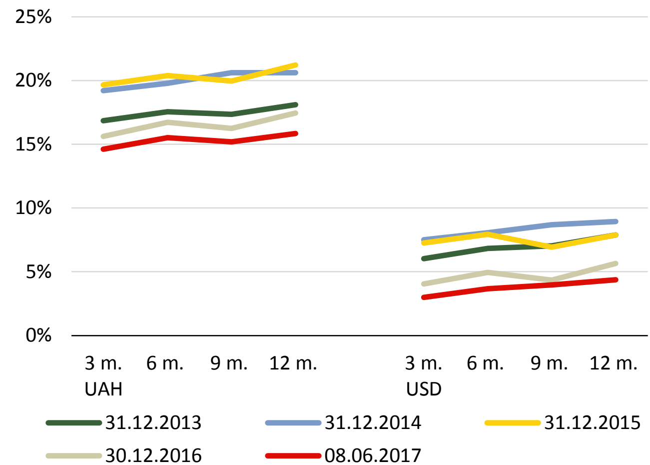
The percentage of deposits with residual maturity of over 6 months increased from 13% in December 2015 to 17% in Q1 2017. In order to improve the maturity composition of deposits and other liabilities, banks should revise their interest rate policies by increasing the interest rate differential between short- and long-term deposits. Current yield curves for retail time deposits are practically flat, which discourages depositors from differentiating between short- and long-term deposits.

Structure of households' deposits by countries as of 01.04.2017



** Deposits without a fixed maturity from which you can withdraw only on a prior notice and after paying a fine, as well as investment accounts with restrictions.*
Source: ECB, NBU

The yield curves for retail deposits, % per annum



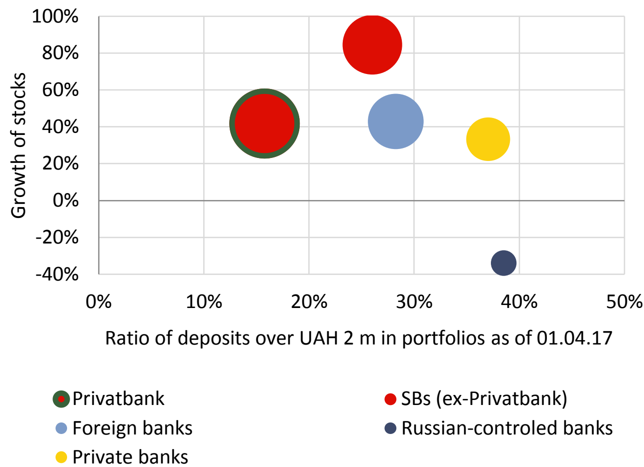
Source: NBU, UIRD index

Depositors have started to consider non-price factors

Households and businesses prefer making deposits at state-owned and foreign-owned banks, but not Russian banks. Deposits with these groups of financial institutions have grown the most since the start of the crisis. In addition, deposits with financial institutions that have the highest deposit concentration have seen the lowest amount of growth. Russian banks are losing the trust of depositors.

Although state-owned banks enjoy the confidence of depositors, they are reluctant to cut deposit rates, which slows the decrease of all market rates.

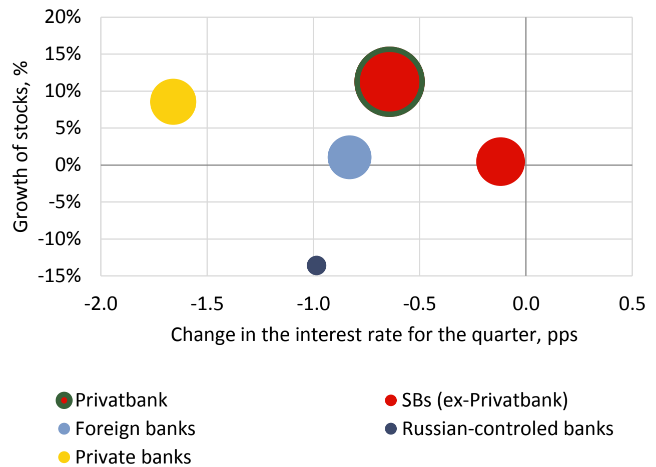
Volume and concentration of retail deposits* in Q1 2017



** The area of the circle reflects the volume of deposits on 01.04.17.*

Source: NBU

Volume of retail deposits in hryvnia* and change in interest rates in Q1 2017

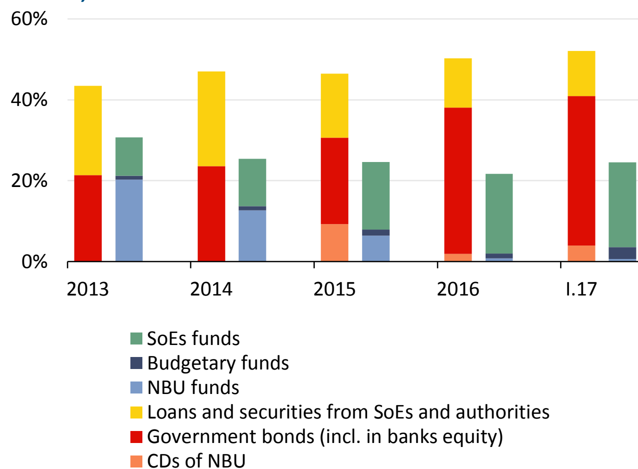


** The area of the circle reflects the volume of new deposits in the quarter; the rate is the weighted average for the quarter.*
Source: NBU

State-owned banks over-rely on government funds
Since the start of the crisis, the deposits of state-owned enterprises have grown 3.7 times, contributing 46% to the growth in corporate deposits. Those deposits made 9% of the total liabilities of banks as of end-Q1.

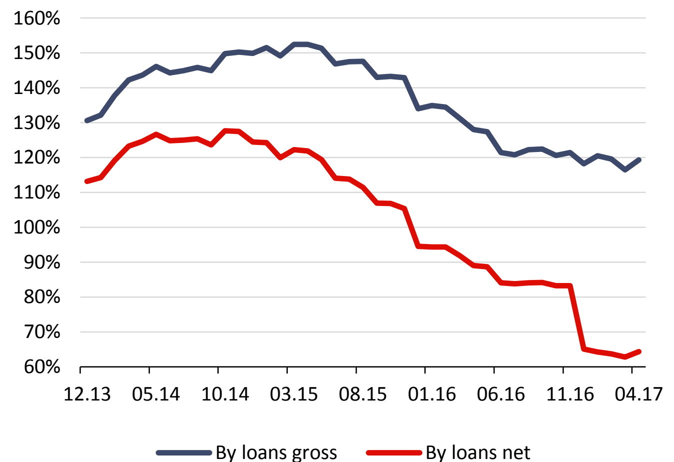
State-owned banks compete for deposits from local governments and state-owned enterprises. They take new deposits from these clients at high interest rates and rarely cut deposit rates when prolonging existing agreements. Given the large portfolios of domestic government bonds on the books of state-owned banks, bank assets and liabilities are highly dependent on the government and this dependence is continuing to grow. This suggests these banks are guided less by market principles in their operations, which, combined with lower profits, may make the privatization of these banks more difficult in future.

State share in total assets and liabilities of state-owned banks*, %



** ex-Privatbank.*
Source: NBU

Loan-to-deposits ratio (LTD), %



Source: NBU

Overall, banks will continue to grow retail and corporate deposits in H2, and their funding base will remain stable. Any decreases to deposit rates will largely depend on the interest rate policies of state-owned banks.

Lending trends

Retail lending has been recovering since the start of 2017. Currently, most retail loans are consumer loans and overdrafts. The volume of mortgage and car lending remains insignificant. Corporate lending has been flat: high borrower indebtedness, high legal risks and a slow economic recovery have been deterring corporations from taking on new loans.

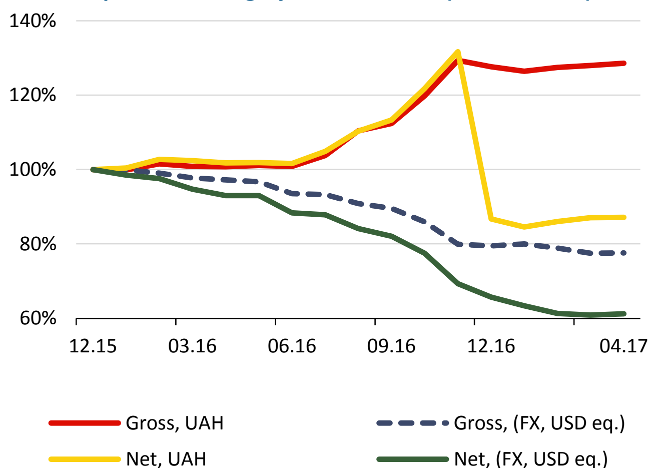
The credit portfolios of solvent banks[5] have little changed over the last two years. Gross loans recalculated at a fixed exchange rate[6] decreased 0.7% from January through May 2017. Excluding written-offs of bad loans, the gross portfolio grew 0.8%[7]. Net loans declined by 2.2%, due to banks making additional provisions.

The corporate credit portfolio has little changed

Corporate loans recalculated at a fixed rate reduced by 0.8% from January through April, due to banks writing off FX loans. FX loans are still being converted into hryvnia facilities, which is translating into growth in hryvnia loans across most economic segments.

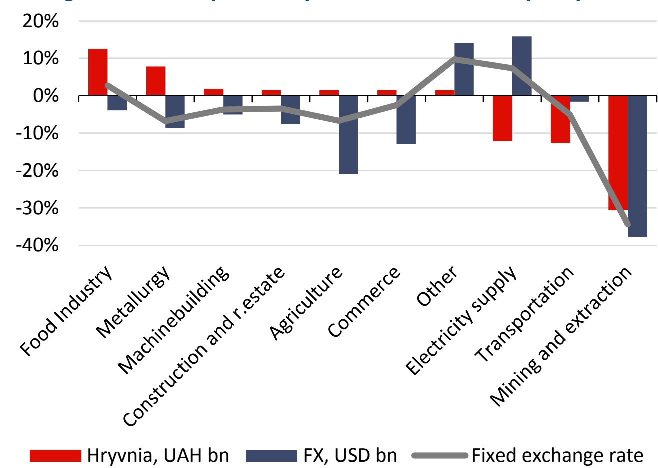
In January to April this year, hryvnia loans to the food processing and metallurgy industries grew at the highest rate (12.6% and 7.8%, respectively, with both growth rates up from last year). Loans to the mining industry decreased dramatically as banks wrote off loans to companies located in non-government controlled areas (these loans were fully provisioned for in previous periods) and government monopolies repaid a portion of their loans.

Gross corporate lending by solvent banks (2015 = 100%)



Source: NBU

Change in credit exposure by sectors over January – April 2017



Source: NBU

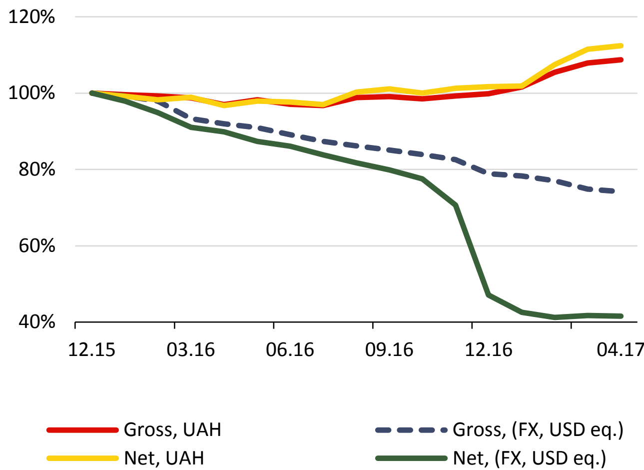
Retail lending has started to recover

All banks, apart from foreign-owned institutions, increased retail hryvnia lending from January through May. Including PrivatBank, which started to incorporate P2P loans into its balance sheet, hryvnia loans grew 11.7%. Excluding PrivatBank, the loans grew 6.1%.

Half of banks' current retail loan portfolios are FX loans issued before FX lending was banned in 2009. NPLs account for 95% of these loans. These facilities generate no income and are mostly lost to banks. Therefore, the hryvnia loan portfolio provides a clearer picture of retail lending developments. In this segment, NPLs account for about 25% of all loans.

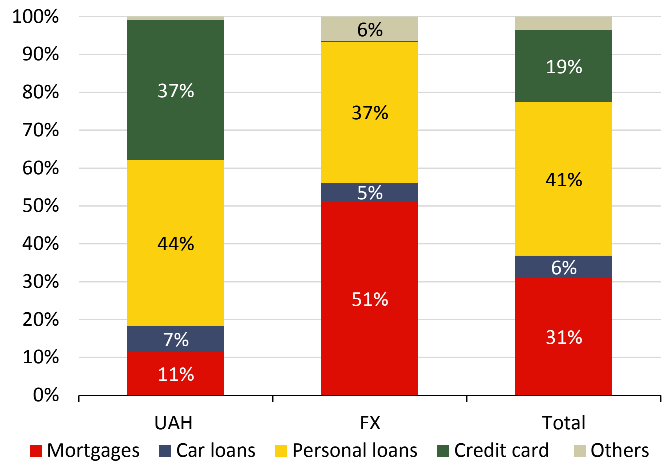
[5] As of 1 May 2017.
[6] UAH 27.19 per USD 1 in early 2017.
[7] Over the first four months of 2017.

Gross retail lending by solvent banks (2015 = 100%)



Source: NBU

Structure of retail credits by goals as of 1 May of 2017



Source: NBU

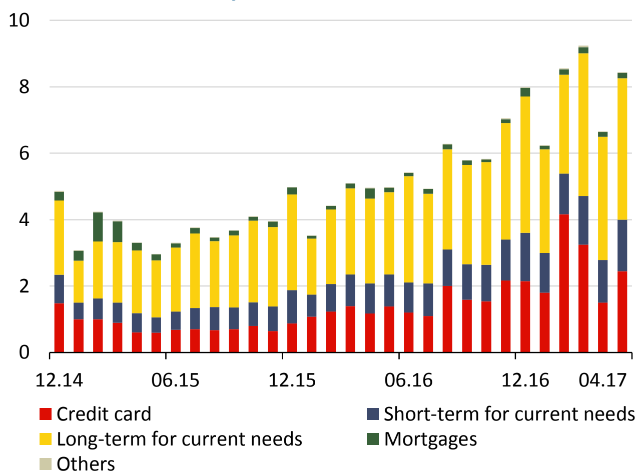
Consumer loans (mainly unsecured) make the largest share of the hryvnia portfolio (currently 44%). These loans also hold the largest share of banks' new lending. They are often provided in cash or as payment for durable goods bought on credit.

PrivatBank almost solely drives changes in card loans that make up 37% of the hryvnia loan portfolio. The share of card loans in new loans hovered at around 30% throughout the crisis. The significant increase in 2017 resulted from PrivatBank moving P2P loans from off-balance onto its balance sheet.

Mortgages and car loans still hold a minimal share of the hryvnia portfolio. New hryvnia mortgages are mainly old FX loans that were converted into hryvnia during the crisis. New mortgage lending remains minimal (for more information see the supplementary materials "Mortgages: Lending has started to recover"). The outstanding car loans, which make up 7% of the hryvnia portfolio, have been rising since H2 2016 and the number of new car loans has been growing since early in 2017, for the first time since the start of the crisis.

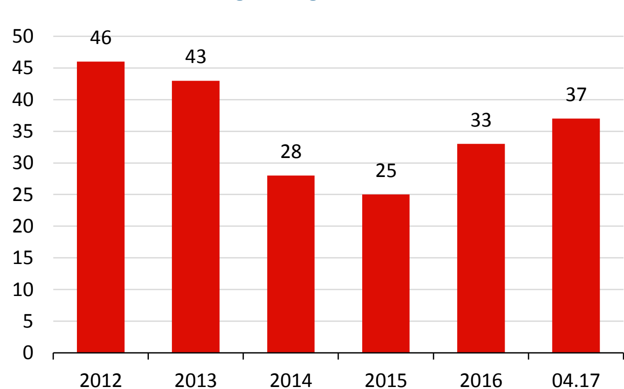
Although the number of banks that have been expanding retail hryvnia lending has increased from 37 to 90 over the last two years, the number remains below pre-crisis levels. Overall, nearly all banks say they intend to ramp up retail lending. The Lending Survey for Q1 2017 shows that 88% of banks expected their retail loan portfolios to grow in the next 12 months.

New retail loans in hryvnia, UAH billion



Source: NBU

Number of banks with growing retail loans



Source: NBU

Box: Consumer lending in detail

Consumer lending is expanding rapidly. The high market potential attracts both banks and non-bank financial institutions (NBFIs), including financial services companies, pawnshops, etc., which have grown in number materially in recent years. Consumer loans account for 59% of total retail lending. The market will develop further on the back of stable demand for consumer loans. GfK Ukraine presented the results of its analysis in its report titled "Over-indebtedness of the population in Ukraine: 2016 – 2017".

The survey was conducted in early 2017 for the International Finance Corporation. Targeted respondents were borrowers from financial institutions or anyone who draw a loan within the last two years. The sample was representative by age, gender, region, and size of populated center. Anonymous interviews of 2 410 respondents were conducted.

Below are the survey's main findings:
- 96% of respondents borrow from banks. The remaining respondents borrow from NBFIs.
- Covering daily expenses is the most popular loan purpose (44% of respondents). Purchasing home appliances (29%) and home repair (9%) were second and third, respectively.
- An unsecured line of credit on a borrower's card is the main form of lending (83%).
- An average loan is UAH 10 700. At the time of the survey, a borrower had UAH 6 300 in total outstanding loans, with an average UAH 933 in monthly payments of principal and interest.
- 76% of respondents repaid on time, while only 2% of borrowers had past dues of over 90 days. Loans are typically repaid according to the schedule agreed with the bank.
- Most respondents said their own earnings were sufficient to repay loans. At the same time, 40% had to save by cutting back on additional spending (travel, entertainment, gifts, hobbies, fuel, etc.).
- The majority of respondents have no bank deposits and no significant cash savings.
- Only 23% plan to borrow money within the coming 12 months, first of all to cover daily expenses and to buy home appliances.
- Most of those who intend to borrow plan to go to a bank (71%) or to take an interest-free loan from relatives and close friends (28%). Only 9% plan to borrow from non-bank institutions.
- NBFIs take durable goods as collateral most often (25%), compared to banks who only do so in 1% of cases. When issuing loans, banks did not request collateral in 84% of cases and NBFIs in 49% of cases.
- Most loans issued by NBFIs were disbursed in cash (78%). Banks most often lend in the form of credit lines (35%) or payments for purchasing specific goods or services (23%).
- Salaried employees prefer bank loans, while students and retirees tend to borrow from relatives and close friends.

The survey also draws attention to the risks of retail lending: the income of 81% of respondents is low. The weaknesses of the supply of credit facilities include underdeveloped risk management frameworks, the diversity of credit products, and insufficient regulation of NBFIs coupled with their growing role on the consumer finance market.

The survey's key positive finding is that 76% of respondents repay their debts properly and on time, while most others are only past due by less than 30 days. The NBU expects the new consumer lending law that came into effect in June this year will have a positive effect on the development of household lending. As the survey shows, bank consumer finance has great potential: in 2016, the share of the households using bank loans is at an 8-year low.

Credit risks

From the start of 2017, banks have applied new rules for calculating credit risk and recognizing non-performing exposures (NPEs), particularly loans. In doing so, Ukraine approximated its approach to international standards. Banks have now reported the true quality of their loan portfolios. As of the end of April, non-performing loans (NPLs) rate was around 57%. The high NPL rate is one of the key systemic risks for the banking sector, which, along with other factors, is standing in the way of lending recovery.

A new definition of NPLs has been introduced

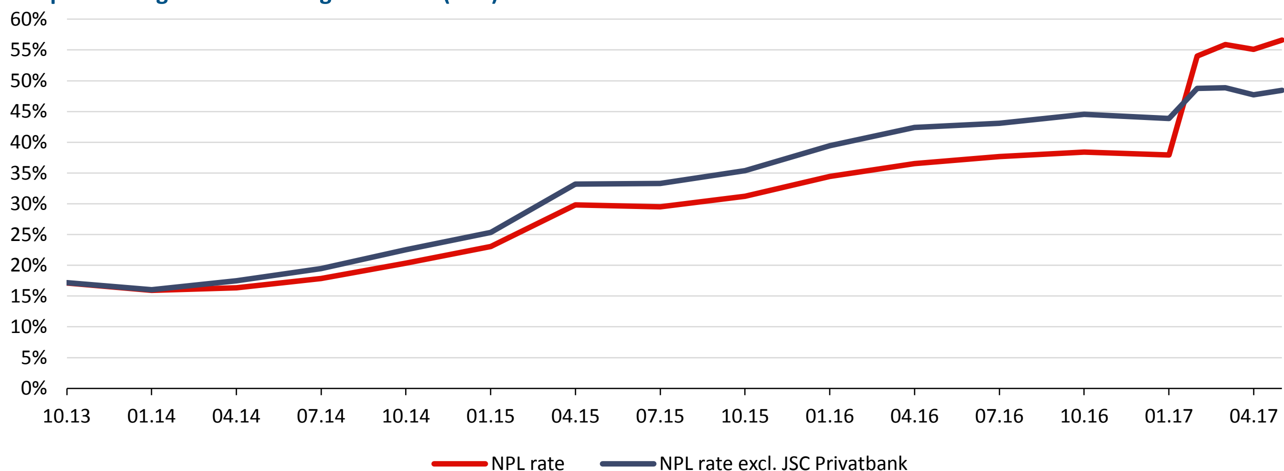
On 30 June 2016, the NBU Board adopted Resolution No. 351, *the Regulation for Measuring by banks of Ukraine of Credit Risk*, which came into full effect on 3 January 2017. The document established the rules for calculating banks' credit risks and introduced the definition of non-performing exposures (NPEs), particularly loans, which brought Ukraine close to the common global standard for the definition of non-performing exposures/loans (NPEs/NPLs). NPEs, including NPLs, are defined as such if at least one of the following conditions is met:

- A counterparty's exposure is more than 90 days past due (30 days past due for banks).
- A borrower is unable to meet its credit obligations in due time without realisation of collateral.

The first data published following the application of the resolution showed a sharp rise in NPLs. As of April 2017, NPLs accounted for 56.6% of the entire loan portfolio. The increase from the levels of late 2016 was driven by the following factors:

- The recognition of realistic loan quality by PrivatBank following its nationalization (impact: +15.1 pp)
- A change in the methodology for defining NPLs (+3.6 pp)
- The exclusion of off-balance sheet exposures from the calculations (+7.4 pp). Historical data on NPL rates previously published by the NBU had included on- and off-balance sheet exposures. Large revocable loan commitments usually fall into the highest quality category. This resulted in a significant decrease in the reported NPL rate. The NBU will now publish the key NPL ratio based only on balance sheet items.

Nonperforming loans to total gross loans (NPL)*



** In solvent banks as of 01.05.17.*

Source: NBU

Through the first four months of 2017, the NPL ratio moved in a 1.5 pp range, which is a clear sign of a stabilization of loan portfolio quality.

Net credit risk impacts regulatory capital

New rules for calculating regulatory capital have been in place since 1 January 2016. Under the new rules, if the estimated value of credit risk (currently calculated per Resolution No. 351) exceeds the IFRS-based total provisions against asset-side operations, regulatory capital is decreased in the amount of difference (net credit risk). The definition of the "credit risk level" is essentially the same as the prudential provisioning as defined by NBU regulations.

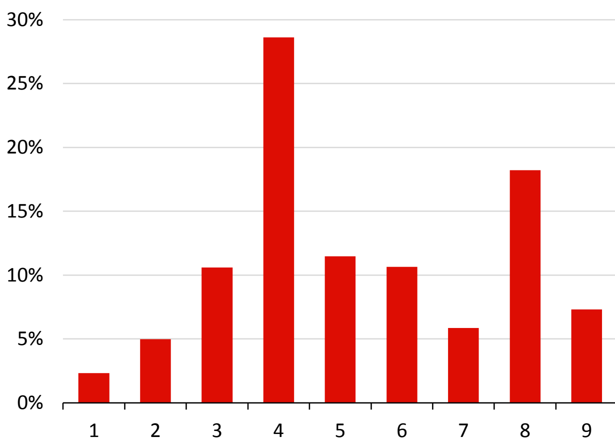
The rule is based on Principle 18 "Problem assets, provisions and reserves" of the Basel Committee's Core Principles for Effective Banking Supervision. The principle requires the regulatory authority to ensure the amount provisioned is sufficient from the perspective of banking supervision and that it fully covers the expected loss. Otherwise, the regulator must request an increase in the amount of provisioning or a capital adjustment.

Financial standing is the primary determinant of the level of credit risk

To assess a legal entity's credit risk, a unified scoring model across all banks is applied to determine a borrower's financial class (1-9). Additionally, the criteria for high credit risk have been set; if the criteria are met, a bank must classify a borrower as the 8th class even if the scoring model shows a higher class for the borrower (1-7). In addition, Resolution No. 351 specifies factors that indicate a borrower's inability to fulfill commitments to a bank. If those factors are present, a bank must recognize a borrower's default. All defaulted corporate loans are classified under the 10th financial class.

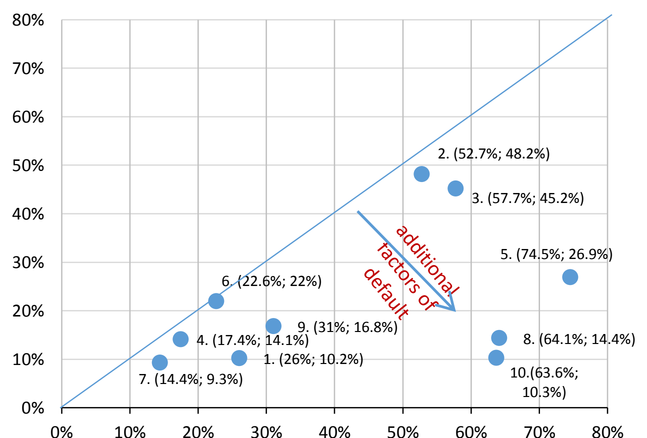
The data from banks show that the distribution of corporate loan portfolios by financial classes is close to normal. The regulator had been expecting a normal distribution in developing the scoring model.

Corporate loans distribution by financial classes as of 01.05.17



Source: NBU

NPLs and loans past due 90 days, as of 01.05.2017



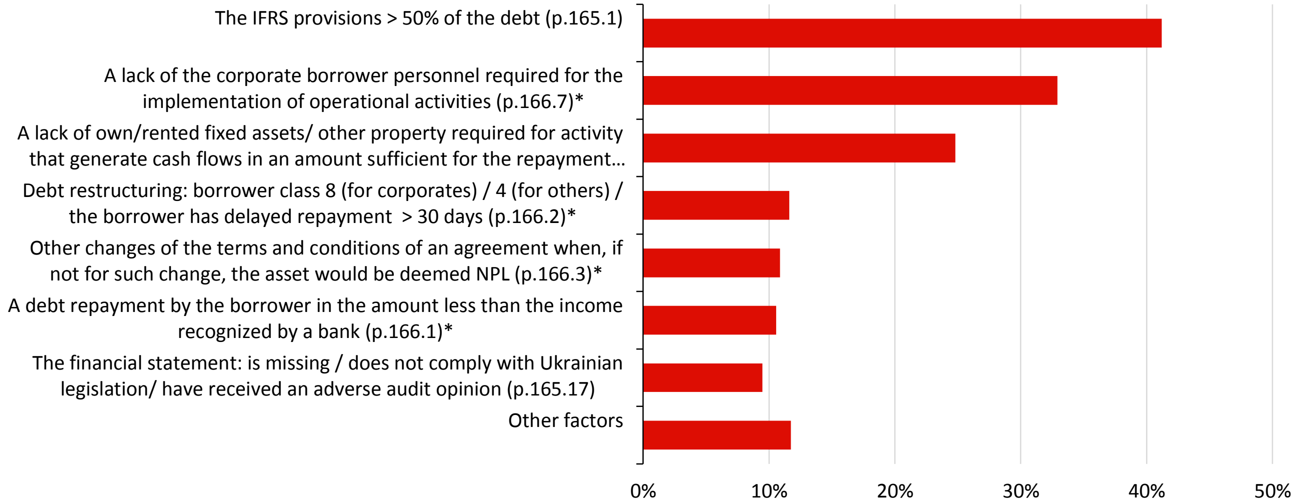
1 – Agriculture (NPL; 90+), 2 – Mining and quarrying, 3 –Manufacturing industry, 4 – Supply of electricity, gas, steam and air conditioning, water supply; sewage, waste management, 5 – Construction and real estate operations, 6 – Transport and telecommunications, 7 – Professional, scientific and technical activities, 8 – Trade, hotels and food, 9 – Financial and insurance activities, 10 – Other services.

Source: NBU

The largest share (29%) of loans assessed by the scoring model falls into the 4th class, with the probability of default ranging from 4% to 6%. A high share of loans classified under the 8th financial class is the result of certain characteristics for high credit risk. The most significant characteristics of high credit risk include exceeding the thresholds under the debt-to-net income ratio (more than 2.5x) and the debt-to-EBITDA ratio (more than 7x). This is the underlying factor for almost 60% of the debt that is included in the 8th financial class.

An analysis of NPLs (the 10th financial class, with 100% probability of default) indicates that a significant portion of them is determined by default factors that are not related to arrears (past due more than 90 days).

Triggers of recognition of a loan, which is not past due 90 days, to be at default, ratio of total NPLs



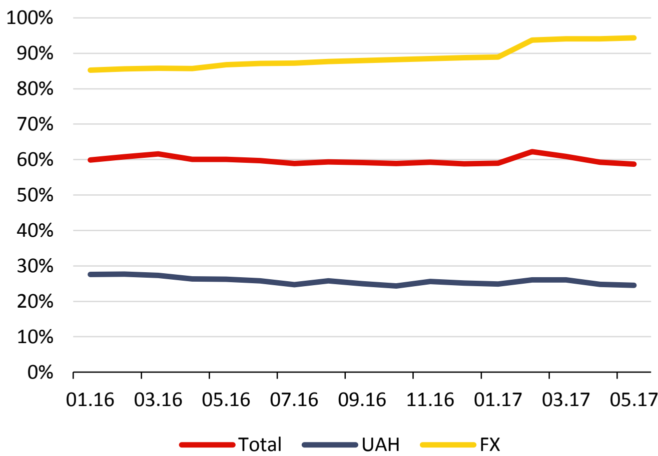
** "Soft" default factors, where a bank can prove that a borrower is not at default based on its judgment; thus, these loans can potentially migrate to performing loans in a future.*

Source: NBU

The quality of retail loans portfolio is improving

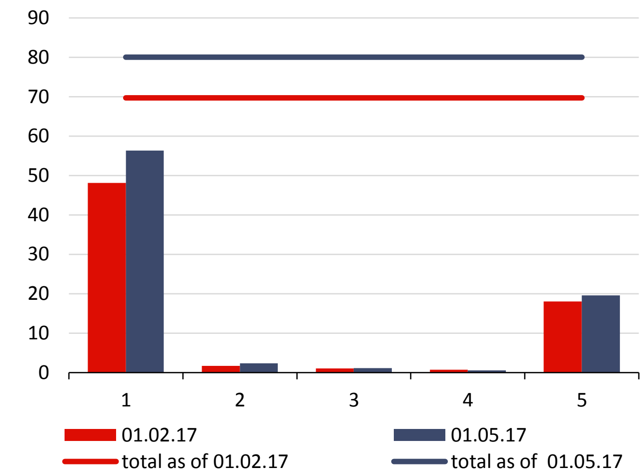
The NPL rate in retail loans shrank 3.3 pp to 59.7% over the past three months, mainly due to the statistical effect of increasing new lending in hryvnia.

Non-performing retail loans to total gross retail loans



Source: NBU

Retail loans distribution by financial classes as of 01.05.17



** In solvent banks as of 01.05.17.*

Source: NBU

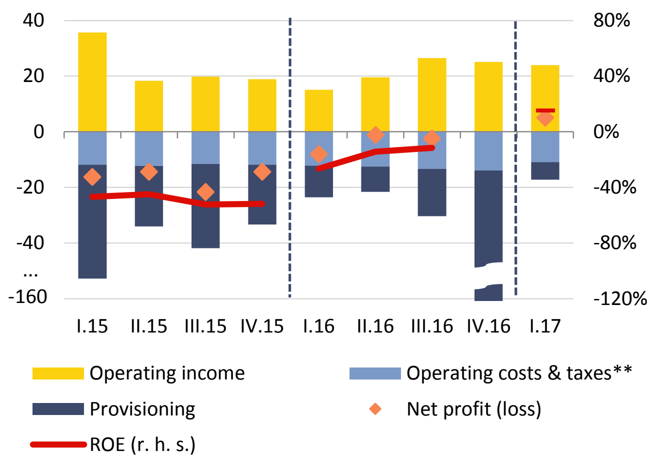
Financial results and capitalization

Banks turned profitable in 2017, largely due to lower provisioning and improved financial performance. Lower deposit rates were driving up net interest income, while new loan issuance remains low. Commission income has risen, driven by stronger demand for banking services. Those trends are expected to continue through the current year and banks should remain profitable. The only risk to profits in 2017 arises from the possibility of additional losses at some state-owned banks. The weak operating performance of the state-owned banks poses mid-term risks.

The banking sector has returned to profit

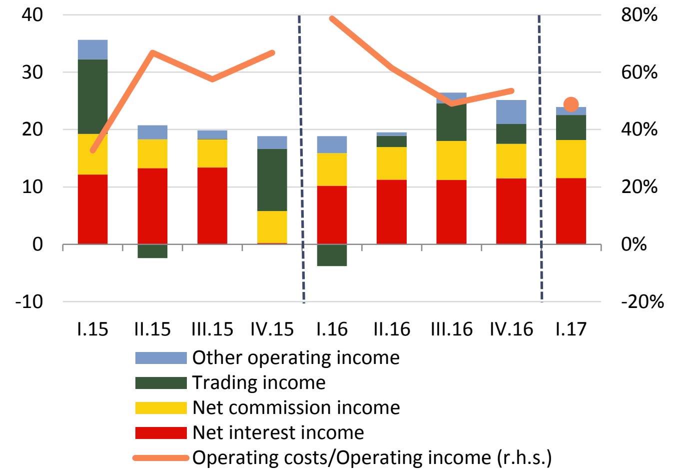
After generating record losses last year (UAH 159.4 billion), the banking sector has started to generate profits again. Banks' net profit grew by UAH 20.9 billion yoy to UAH 9.4 billion in the first four months of 2017. Operating performance improved: the cost-to-income ratio dropped 9 pp to 49% driven by a hike in interest and commission revenues. In the first four months of 2017, banks had to make half of the provisions they had made in the same period last year.

Components of financial results* and ROE



** Volumes for quarter.*
*** Income tax included.*
Source: NBU

Components of operating incomes of banks*



** No net interest income based upon Q4 2015 is a one-time effect due to banks' transition to IFRS.*
Source: NBU

Net interest income has grown mainly on lower deposit rates

Over the first four months, net interest income increased 20% yoy driven by reduced costs – lower deposit rates decreased interest expenses 25% yoy. Interest income also declined inter alia due to lower rates on restructured loans, but the decline was much less significant.

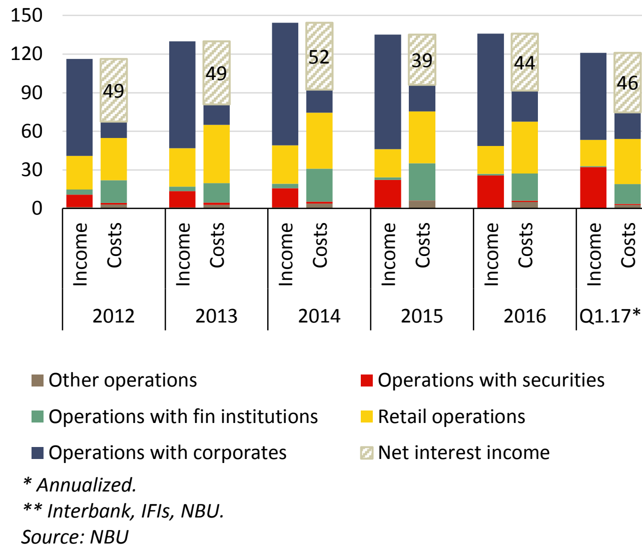
Among interest income components, interest paid on securities, especially on domestic government bonds, is increasing its share. In contrast, the share of interest income from retail and corporate loans is falling, to 73% in Q1 2017 from 80% last year and a pre-crisis level of 88 – 90%.

At state-owned banks, interest paid on domestic government bonds makes up 40% of interest income

From 2014 through 2016, the state-owned banks, including PrivatBank, made large provisions for NPLs. This resulted in a need for additional capital, which the government met by boosting the authorized capital of those banks using domestic government bonds. As a result, government securities account for a large portion of interest income at state-owned banks. Coupon payments related to domestic government securities accounted for about 40% of the interest income of state-owned banks in Q1 2017. This serves to decrease the interest margin, since the yield on domestic government bonds is lower than loan rates. High rates on deposits from households, state-owned enterprises, central and local governments,

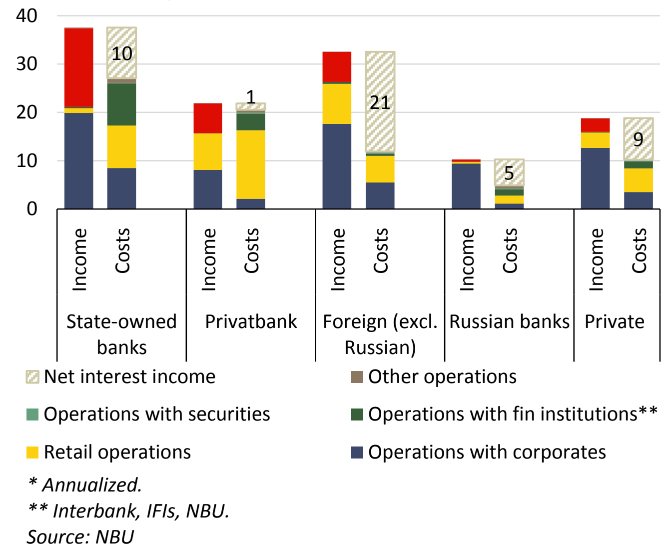
which account for a large percentage of the funding base, also have a significant impact on the interest margin. As a result, state-owned banks generated the lowest interest margin comparing with other market players. The weak performance of the state-owned banks will require a fundamental change to their business models.

Components of interest income and expenses, UAH billion



** Annualized.*
*** Interbank, IFIs, NBU.*
Source: NBU

Components of interest income and expenses by groups of banks in the I quarter of 2017, UAH billion



** Annualized.*
*** Interbank, IFIs, NBU.*
Source: NBU

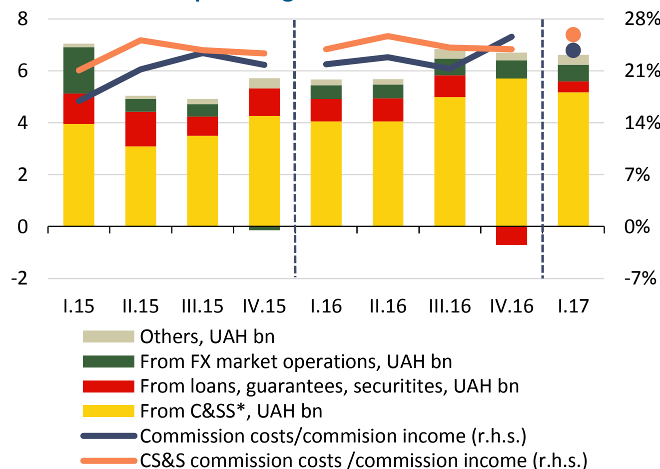
Commission income is rising

Commission income grew 16% yoy in Q1, driven by greater demand for banking services, especially for cashless transactions. Future growth in commission income is expected to come from the volume of services provided rather than from increased commissions.

Additional provisioning is no longer critical for the banking sector's profitability

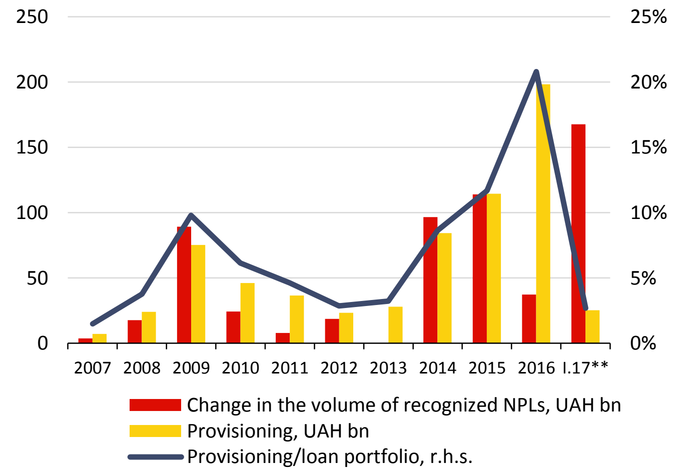
Loan provisioning is expected to be significantly lower this year than in 2015 and 2016; almost all the banks have recognized and provisioned their toxic assets. The asset quality review for small banks is to be completed this year. However, any provisioning by these banks will not have a material impact on the banking sector's performance because these institutions account for less than 2% of total assets.

Components of commission income and the efficiency of commission from providing services



Source: NBU

Provisioning*



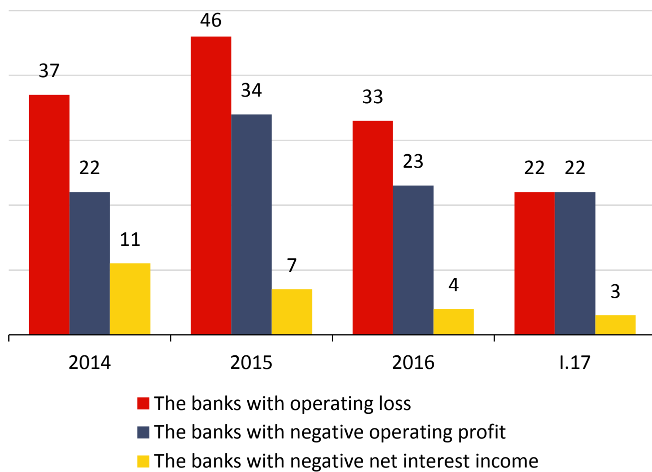
** Provisioning/loan portfolio.*
*** Annualized.*
Source: NBU

Banks are continuing to raise capital

Banks are increasing their capital as required following stress tests conducted in 2015 and 2016. Banks have grown their aggregate equity capital 6% since the start of this year, largely owing to the additional UAH 26.4 billion in capital injected into state-owned banks. For many small banks, the requirement to boost regulatory and statutory capital to at least UAH 200 million by mid-July 2017 poses a challenge.

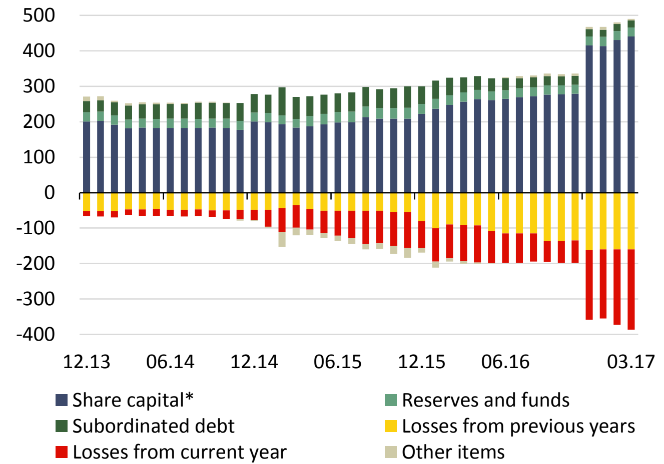
The number of loss-making banks has dropped from 33 (out of 96) in 2016 to 22 (of 92) in Q1 2017. Although some banks continue to generate operating losses, the private banks are expected to be profitable in 2017.

The quantity of loss-making banks*



** Solvent as of certain date.*
Source: NBU

Components of regulatory capital, UAH billion



** Both registered and non-registered.*
Source: NBU

Changes in the regulatory environment

In H1 2017, the NBU eased foreign exchange restrictions further and banks have become fully compliant with new rules for credit risk assessment. On the legal front, the adoption of the Law *On Simplifying Procedures for Increasing Capital and Restructuring Banks* is a key change. There has been little progress on other legislative issues and legal risks remain high.

The procedures for recapitalization and reorganization of banks have been simplified
A law simplifying the procedures for recapitalization and reorganization banks was adopted in March. The law shortens the reorganization procedure from 18 months down to a few months. This was done by reducing deadlines for regulatory and corporate approvals and cutting the number of documents to be submitted to regulatory bodies (NBU, Anti-Monopoly Committee, State Fiscal Office, and National Securities and Stock Market Commission). In addition, the law allows banks to annul banking licenses without losing their status as a legal entity, which allows them to continue operating in the non-banking financial sector.

Ukraine has imposed sanctions on Russian-owned banks
In March, Ukraine's National Security and Defense Council approved sanctions against several Russian legal entities. The sanctions were drawn up by the NBU and target five banks – Sberbank, Prominvestbank, VTB Bank, VS Bank, and BM Bank. Financial transactions with related parties including their parent institutions are prohibited for those banks. Examples of banned transactions include direct or indirect asset-side transactions, dividend or interest payments, profit distribution, allocation of capital, and repayment of interbank loans or deposits, repayment from correspondent accounts, and subordinated debt.

New rules for banks to measure credit risk are in place
From early July 2016, banks implemented the new NBU Credit Risk Assessment Regulation in test mode. At the same time, to factor in the specific requirements of post-crisis relations with borrowers, banks and the NBU worked together on improvements and adjustments to the Regulation. In early 2017, the Regulation came into full effect. The most significant amendments include:

- The definitions of certain credit risk indicators were refined and their introduction was pushed back until 2019
- The loss given default (LGD) ratio used to assess credit risk of state-owned enterprises was lowered from 45% to 30%
- The assessment of credit risk arising from swap transactions was adjusted. The central bank specified the conditions under which swap transactions do not pose credit risks
- The list of instruments providing guarantee by a business group members that a borrower-group member will meet its obligations was expanded to include as financial guarantees and irrevocable stand-by letters of credit
- Allowed banks to employ the financial statements of borrowers from open sources such as websites of company or the National Commission for Securities and Stock Market
- Revised certain collateral requirements
- Delayed the mandatory insurance of all pledged items until 2019.

The NBU continues to ease FX restrictions
Over the last six months, the NBU has eased FX controls further and lifted certain restrictions altogether. These changes include:

- Prolonged the deadline for settling export and import transactions from 120 to 180 days
- Allowed foreign investors to purchase and transfer foreign currency to return abroad proceedings from sales of corporate rights and securities. Permitted the repatriation of dividends not only for 2014 – 2015 but also for 2016. Repatriation restrictions have been eased to allow the repatriation of up to USD 5 million in dividends per individual per month.
- Allowed businesses to pay off foreign loans issued or guaranteed by international financial institutions before the loans are due

- Reduced the requirement for the ratio of FX earnings legal entities must surrender on the interbank market from 65% to 50%
- Increased the maximum amount of FX cash a bank can sell to one individual per day from UAH 12 000 to UAH 150 000 (FX equivalent)
- Lifted the ban on purchases of FX by bank clients with FX accounts of over USD 100 000 (FX equivalent). Previously, clients who had the amount on FX deposit were required to service debt with their own foreign currency.
- Cancelled the limit on retail transfers abroad for non-trade transactions. Previously, with a few exceptions, transactions were capped at UAH 150 000 per month for individuals.
- Lifted the requirement for banks to open direct FX correspondent accounts only in the relevant foreign currency's country of origin.

The changes are expected to facilitate international business for banks, individuals, and businesses, as well as for foreign investors to repatriate investments and income.

The NBU has introduced a new tool for liquidity support for banks

In December 2016, the NBU adopted a new liquidity assistance facility, the Emergency Liquidity Assistance (ELA). The ELA is designed to provide, in an emergency, funding from the central bank to financial institutions that are experiencing temporary liquidity problems and which have tapped all available sources of liquidity. A bank may apply the assistance exclusively to cover temporary liquidity gap: they are to use this money to meet obligations to depositors and other creditors, excluding related parties.

Law *On Consumer Lending* came into effect

The law was passed in November last year and came into effect on 10 June 2017. The Law is intended to protect the rights of borrowers and creditors, mainly by providing consumers with all the information about the terms and conditions and cost of loans they need to make a borrowing decision. In line with the Law, the NBU has introduced new rules for banks to calculate the full cost of a consumer loan and the real annual interest rate on it.

The NBU also introduced requirements for consumer loan intermediaries, which include knowledge and reputation requirements. Loan intermediaries will be required to enter a mediation agreement with a bank, and the bank must make the information available on its website. Intermediaries will also be required to provide banking consumers with more information about banks, their services, and lending terms, and they will be responsible for the information they provide. This should promote transparency of Ukraine's consumer lending market and facilitate the market development.

Recommendations

Safeguarding and maintaining financial stability requires coordination between the National Bank of Ukraine (NBU), banks and other financial institutions, and government authorities. The NBU is proposing recommendations for government authorities and banks and outlining its plans and objectives for the near term.

Recommendations for Government Authorities

Accelerate the reform of state-owned banks

The priority on this front is the adoption of legislation to set new rules for establishing supervisory boards at state-owned banks. In light of the PrivatBank nationalization, the strategy for reforming state-owned banks needs to be updated. Supervisory boards should approve business models for the banks based on the overall strategy for the development of the state banking sector. The state must significantly reduce its share in the banking sector over the next three to four years.

Adopt legislation to reform the financial sector

First and foremost, legislation must be introduced to protect creditor rights. A resumption of corporate and mortgage lending is practically impossible unless legal risks are mitigated. Other issues on the agenda include the adoption of a law that will facilitate the launch of a credit registry and amendments to the Law of Ukraine *On Banks and Banking* to improve corporate governance standards at banks. Another pressing issue is to amend tax legislation to allow banks to restructure debt and partially write down loans without incurring tax liabilities.

Recommendations for Banks

Accelerate the clean-up of non-performing exposures from balance sheets

NPLs account for around 57% of the aggregate loan portfolio at banks. In the second half of this year, banks will be required to establish plans to clean up NPLs from balance sheets. Measures can include restructuring to restore the financial standing of bona fide borrowers, collateral foreclosure and disposal, and writing off provisioned debt. An effective clean-up of bank balance sheets will require changes to tax legislation.

Employ financial (out-of-court) restructuring mechanism

The financial restructuring mechanism has been in place since April, but banks are reluctant to employ it. Currently, only state-owned banks have signed financial restructuring framework agreements. The mechanism builds on the positive experience from other countries, and private banks would benefit from the financial restructuring as well.

Sign ELA agreements in advance

The NBU has introduced the Emergency Liquidity Assistance (ELA) facility to support viable banks that experience a short-term liquidity gap. The ELA is available to banks that, per the NBU’s assessment, have tapped all available liquidity support resources. The mechanism replaced the former NBU’s stabilization loans. Banks must sign ELA agreements in advance, before issues emerge, to have quick access to NBU loans in the event of deposit outflows. This mechanism safeguards banks from external shocks that could provoke bank runs from individuals and businesses.

The NBU’s Plans and Objectives

Enhance the standards for financial and prudential disclosures by banks

Starting in Q3, the NBU will be publishing banks’ monthly balance sheets. Currently, financial statements of banks are available only on a quarterly basis. The more frequent publication of bank balance sheets will make it easier for external users, clients, and analysts to monitor key indicators and their trends.

Continue developing new capital and liquidity requirements in-line with EU regulations (CRR/CRD IV package) based on Basel III recommendations.

The NBU is finalizing the development of a new liquidity coverage ratio (LCR) and starting to develop a new net stable funding ratio (NSFR). Additional changes to regulatory capital components are being worked on to bring Ukraine's regulatory framework in-line with EU legislation. New liquidity requirements will be phased in from 2018 and new capital requirements from 2019 on.

Continue liberalizing the FX market

The NBU has significantly eased the currency market restrictions that were introduced at the height of the crisis. Provided there are no external shocks, the regulator will continue liberalizing the market. One of the NBU priorities is lifting all restrictions related to FDIs and movement of capital.

Supplementary (thematic) materials

Cost of banking crisis in Ukraine

The banking crisis in Ukraine resulted in a number of public losses. The largest loss came from the use of budget funds to restructure the banking sector. The funds were used to boost capital at PrivatBank and other state-owned banks and to support the Deposit Guarantee Fund in repayments to depositors of insolvent banks. In addition, a significant portion of the NBU's refinancing loans has been lost. The direct fiscal cost of resolving the banking crisis in Ukraine (14% of GDP) is moderate compared with crises in other countries. The total cost of the crisis, including the direct cost to the private sector, is estimated at 38% of GDP. Most of the costs recognized from 2014 through the first four months of 2017 had emerged in previous periods, but were not recognized by banks previously in due course for various reasons.

Banking crises are precipitated by the emergence of liquidity and capital gaps, which result in bankruptcies at financial institutions. A crisis becomes systemic when problems at individual banks spread to the rest of the banking sector. A systemic banking crisis goes hand-in-hand with external shocks, falling asset prices (particularly for securities and real estate), corporate defaults, deposit outflows and capital flight, and rising funding costs.

The cost of a crisis is typically estimated based on three components:
- Direct fiscal costs of containing and overcoming the impact of the crisis.
- Direct costs to the private sector.
- Indirect losses of the economy caused by banking disintermediation.

This section analyzes the direct fiscal and private sector costs.

The IMF has collected and systemized data on systemic banking crises in different countries in research papers by Luc Laeven and Fabian Valencia, as well as in the Systemic Banking Crises Database. According to the definitions provided in those papers, a banking crisis becomes systemic when[8] at least three of the following six measures are used:

1) extensive liquidity support (5 percent of deposits and liabilities to nonresidents);
2) bank restructuring gross costs (at least 3 percent of GDP);
3) significant bank nationalizations;
4) significant guarantees put in place;
5) significant asset purchases (at least 5 percent of GDP);
6) deposit freezes and/or bank holidays.

Generally, governments bear the largest burden for overcoming crises. Two parameters are used to measure the scale of a crisis: fiscal/quasi-fiscal costs and the increase in public and government-guaranteed debt.

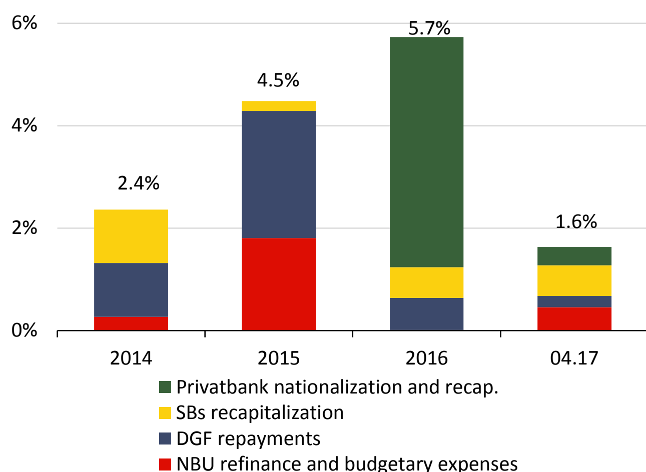
A systemic banking crisis occurred in Ukraine in 2014 – 2016. The crisis was accompanied by a clean-up of the banking system: some 90 banks, accounting for about one-third of pre-crisis banking assets, were declared insolvent. Some of the losses stemming from the crisis were incurred and recognized in 2017. The restructuring of the banking system carried significant fiscal costs, including through the following:

- The nationalization of PrivatBank and its recapitalization in 2016 – 2017. The costs equaled 4.8% of GDP in respective years[9]. An audit in the aftermath of the bank's nationalization revealed a need for an additional capital injection. The conversion of a part of the bank's liabilities into equity prior to the bank's nationalization (bail-in) helped to lower fiscal costs.
- Repayments of guaranteed amounts to depositors of insolvent banks. Financing to the Deposit Guarantee Fund equaled 4.4% of GDP of the respective years.

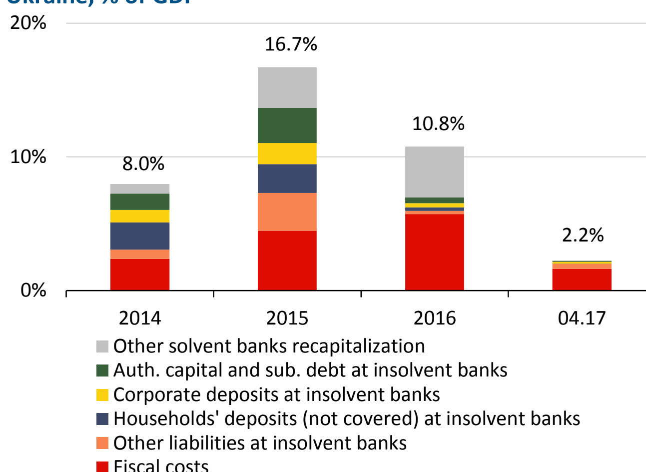
[8] IMF, Systemic Banking Crises Database: An Update, Laeven and Valencia, 2012.
[9] The costs in each respective year were taken in terms of the year's GDP and summed for 2014–2017.

- Refinancing loans issued in 2008 – 2009 and 2014 to banks that were later recognized insolvent. In total, 2.5% of GDP of years when banks were withdrawn was lost. Since the proceeds from the sales of the assets of liquidated banks were limited, those funds due to the NBU are mostly lost.
- The recapitalization of state-owned Oschadbank and Ukreximbank in 2014 and 2015 – 2017 following the results of asset quality review and stress tests. Costs stood at 2.4% of GDP.

Fiscal costs of the banking crisis in Ukraine, % of GDP



Total direct losses of the economy from the banking crisis in Ukraine, % of GDP



Notes:
GDP-2017 estimation – according to the Inflation Report (2017 April).
Privatbank's nationalization and recapitalization excluding possible needs for extra capital in 2017.
Other liabilities at insolvent banks – deposits from other banks, payables, funds of international financial institutions and own debt securities.
Corporate, government, and non-guaranteed retail deposits, NBU funds, other liabilities, equity capital and subordinated debt in insolvent banks – the amount of balances on the accounts at the end of the month when the decision to liquidate the bank was taken.
Recapitalization of state-owned banks is the amount of issued domestic government bonds to increase the equity capital in the respective year.
Capitalization of solvent private and foreign banks – growth of equity capital, issue differences and additional contributions at banks that were solvent as of May 1, 2017.
Source: NBU, DGF

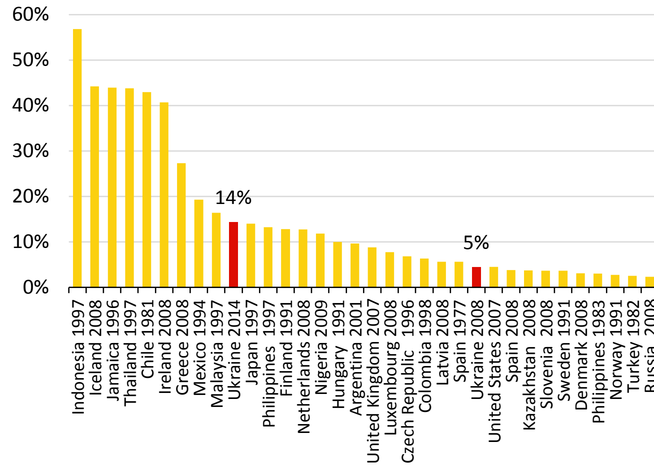
The banking sector's recapitalization and Deposit Guarantee Fund (DGF) repayments – the main public costs of bank sector restructuring – were financed largely through the issuance of domestic government bonds. This facility helps to avoid concentration of fiscal outlays in one year.

The total fiscal costs related to overcoming the consequences of the banking crisis from 2014 are estimated at 14% of GDP of respective years, which exceeds the cost of the 2008 – 2009 crisis. For comparison, in other countries where crises lasted at least three years, the fiscal costs ranged between 1% and 57% of GDP. The increase of direct public and government-guaranteed debt due to government expenditure to support banks and the Deposit Guarantee Fund during the last two crises amounted to 14% of the total amount of debt as of late April 2017. Compared with other countries, this amount is also moderate.

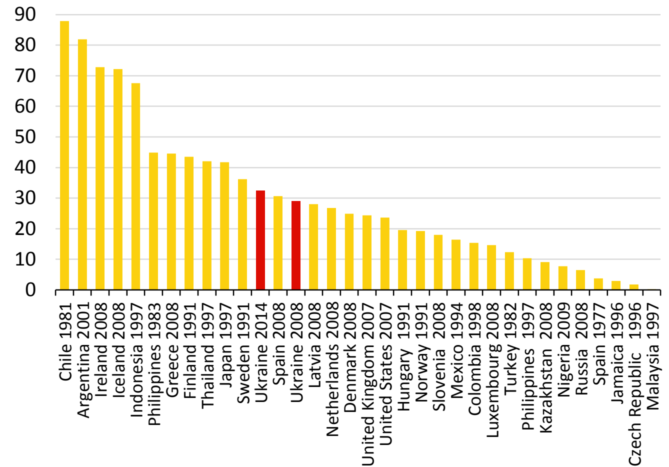
The direct fiscal costs are only a part of the public losses caused by the banking crises. Other costs include the liabilities of insolvent banks to businesses and households that had deposits over the covered amount. The Deposit Guarantee Fund has assumed and is managing those liabilities, which are equal to 16% of GDP in the corresponding years. The cost of the crisis also includes additional capital raised by operational banks and losses incurred by owners of insolvent banks. Overall, the total toll on the economy equals 38% of GDP (including fiscal costs of 14% of GDP).

It is worth emphasizing that a large portion of the estimated loss had been generated in prior periods, including during the 2008 – 2009 crisis, but banks did not recognize those losses in time. The true scale of losses was only recognized during the NBU's clean-up of the banking sector from 2014 to early in 2017.

Fiscal Costs*, % of GDP



Increase in public debt, % of GDP**



Source: NBU

** Fiscal costs are defined as the component of gross fiscal outlays related to the restructuring of the financial sector. They include fiscal costs associated with bank recapitalizations but exclude asset purchases and direct liquidity assistance from the treasury.*
*** The increase in public debt is measured over [T-1, T+3], where T is the starting year of the crisis.*
Source: IMF

Mortgage lending begins to recover

Mortgage lending is picking up, banks are cooperating with residential property developers, and are offering preferential rates on partner programs. Some large banks intend to increase mortgage lending further. Most banks say that the main obstacles on mortgage market development are a shortage of solvent borrowers, high interest rates and legal risks. Overall, risks arising from new housing loans are small: most banks maintain a prudent approach to assessing borrowers and lend only to customers that have considerable savings and a verified official income. However, in light of existing rates and current market conditions, some banks should take a more conservative approach to borrowers' income and the down payment they make when purchasing residential property.

The NBU's survey of banks with the largest mortgage loan portfolios.
The NBU has carried out a survey of the largest mortgage market players in order to obtain granular information about the market. A total of 25 banks with the largest mortgage loan portfolios, which account for 95% of all mortgage lending in the banking system, were surveyed.

The survey was about loans for real estate acquisition, construction and renovation. Respondents were asked to indicate the quantity and amount of new loans they granted in 2016 and Q1 2017, breaking then down by:

- loan principal;
- loan term;
- borrowers' age;
- borrowers' average monthly income;
- loan-to-value and debt-service-to-income ratios;
- regions where loans were granted;
- markets (primary or secondary) where residential property was purchased.

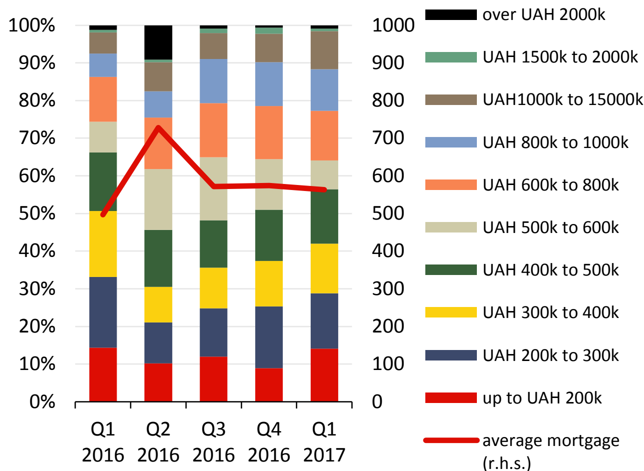
Lending volumes. From 2016 through 2017, 17 out the 25 surveyed banks provided retail loans for real estate acquisition, construction and renovation. New housing loans granted by these banks totaled UAH 736 million in 2016. In Q1 2017, these loans increased by 80% yoy, to UAH 178 million. The average loan size was UAH 574 000 in 2016 and UAH 546 000 in Q1 2017. The share of loans exceeding UAH 2 million stood at 4% in Q1 2017, down from 13% last year.

In 2016, the primary market slightly exceeded the secondary market both in terms of lending agreement and lending volumes – It accounted for 51% of all new loans and 54% of all lending agreements. This trend reversed in Q1 2017, with the secondary market accounting for 64% of lending agreements and 59% of new loans.

The bulk of loans were granted in Kyiv: 765 agreements or 62% of total agreements in 2016 and 170 agreements or 52% in Q1 2017. The figures in Kyiv are higher than in all the other regions taken together. Lviv is in second place among the largest cities. Other cities that are outside Kyiv oblast and are not the five largest cities accounted for 19% of loans in 2016 and 24% of loans in Q1 2017.

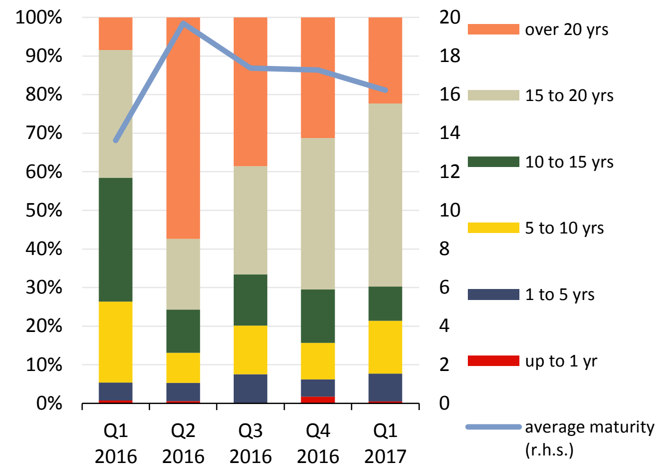
Lending terms and conditions. Most banks offer a fixed rate in the first year or the first several years followed by a variable rate or floating rate pegged to a certain index, such as the Ukrainian Index of Retail Deposit Rates (UIRD). Homebuyers can benefit from partner programs with fixed, usually preferential rates, of 5% and upwards (as a rule, the rate depends on the down payment made by a borrower). Fixed rates other than those offered by partner programs are 20% per annum and upwards. Most banks provide loans for a maximum term of 20 years. The weighted average actual loan term was 16.2 years in Q1 2017 and 16.9 years in 2016. The average wage of borrowers was 36 years in 2016 and 37 years in Q1 2017. This means that banks expect borrowers to pay off their loans before reaching retirement age.

Loans by value*



** In terms of number of contracts.*
Source: Banks' data

Loans by tenor*

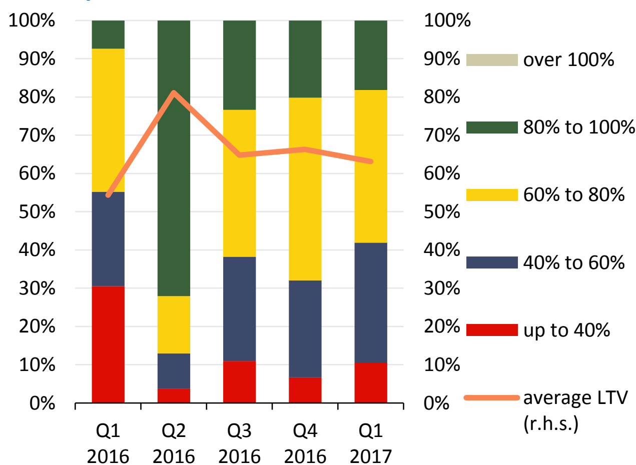


** In terms of volume of loans disbursed.*
Source: Banks' data

Lending standards and borrower requirements. The weighted average loan-to-value (LTV) ratio amounted to 63% for loans issued in Q1. Loans with LTV in a range 40% – 80% as of the origination date dominate the structure of loan agreements concluded throughout the period from the start of 2016 to the end of Q1 2017. This means that financial institutions mostly lend to homebuyers with significant savings. However, a number of banks grant loans to borrowers whose down payment is less than 20%. In some cases, loans of over UAH 1.5 million were issued with LTV exceeding 80%.

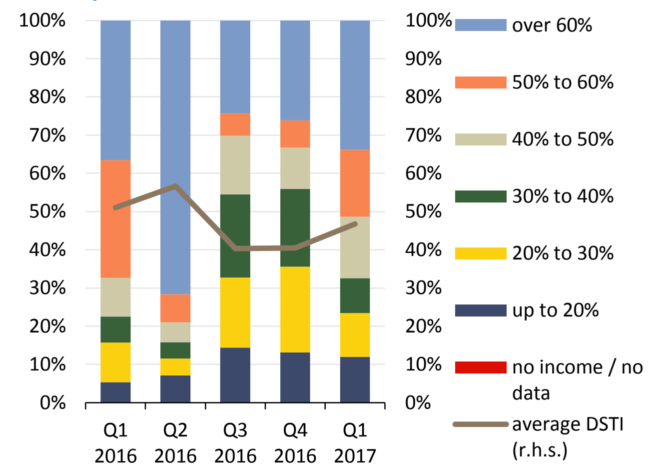
As of the end of Q1 2017, the weighted average income of mortgage borrowers amounted to UAH 23 600 per month. At the same time, most banks issued mortgage loans to individuals officially earning less than UAH 10 000 per month. One of the respondent banks informed that previous year it had granted loans to borrowers having no information about their income. In Q1 2017, the debt service-to-income (DSTI) ratio declined by 4 pp to 47%.

Loans by LTV*



** In terms of volume of loans disbursed.*
Source: Banks' data

Loans by DSTI*



** In terms of volume of loans disbursed.*
Source: Banks' data

Prospects and barriers. The respondent banks believe that mortgage volumes will continue growing. Seven banks expected the average monthly amount of new loans to increase by more than 10% by the end of 2017. Another two banks expected the growth to be lower than 10%. Seven out of eight banks which currently do not issue mortgage loans have no plans to resume this activity till the end of the year.

Eleven respondent banks see the lack of solvent borrowers with official incomes as the main obstacle to revival of mortgage lending. Other important barriers include high interest rates (6 respondent banks) and legal risks, in particular drawbacks of the legislation and judicial practice impeding timely sale of collateral in case the borrower defaults (3 banks).

Conclusions and recommendations

The survey results show that mortgage lending has picked up the momentum starting last year. Over the period of 2016 – Q1 2017, respondent banks issued loans for purchasing, construction and reconstruction of residential real estate to the total amount of UAH 914 million. However, this is only a small part of retail lending: the net amount of UAH outstanding loans to individuals stood at UAH 57 billion as of the end of 2016. The scale of lending is still far from the pre-crisis levels: for reference, in 2012, the amount of new mortgage loans was UAH 2.5 billion.

Some large banks which had been active in the mortgage segment before the crisis do not grant housing loans due to insufficient information about individuals' incomes and credit history. Three out of eight banks which did not resume mortgage lending see lack of solvent borrowers with official incomes as the main barrier.

LTV ratio of 40% – 80% for most new mortgage loans is surprisingly high given the current interest rates. The offered lending terms, envisaging reduced interest rates during the first 12-18 months and their further sharp increase, are favorable for borrowers who lack 20% – 40% of the price of the residential property and who are able to repay the loan within the reduced interest rate period. With the present level of interest rates and market conditions, LTV ratio should not exceed 40%.

In countries with signs of market overheating the regulator usually limits LTV to 60% – 80%. There are currently no direct limitations in Ukraine. However, under conditions of excessive market supply and no grounds for growth of housing prices, banks should follow the conservative approach to LTV when making credit decisions.

Today prudential regulation for mortgage assessment is rather liberal. Most mortgage loans fall into category of less than UAH 2 million and their credit risk is assessed on a group basis, which means that only the fact of past due is taken into account. However, despite no direct influence of borrower financial standing on the amount of credit risk, banks should pay enough attention to DSTI ratio.

DSTI of new loans – 47% in average – indicates that the majority of banks issuing mortgage loans maintain prudent approach to assessing borrower creditworthiness. The international practice considers DSTI of under 50% as acceptable. Banks having a large portion of loans with DSTI above 60% in their portfolios should review their principles of borrower creditworthiness assessment.

Abbreviations and terms

ATO	Anti-terrorist operation
CD	Certificate of deposit
CRR/CRD 4	EU Capital Requirements Regulation / Capital Requirements Directive
DGF	Deposit Guarantee Fund
DSTI	Debt service to income ratio
EBITDA	Earnings before interest, taxes, depreciation and amortization
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
ELA	Emergency liquidity assistance
EU	European Union
FDI	Foreign direct investment
FSI	Financial Stress Index
FSR	Financial Stability Report
FX	Foreign currency/exchange
GDP	Gross Domestic Product
H1/H2	First/second half of a year
IFI	International Financial Institution
IFRS	International Financial Reporting Standards
ILO	International Labor Organization
IMF	International Monetary Fund
LCR	Liquidity coverage ratio
LGD	Loss given default
LIBOR	London Interbank Offered Rate
LTD	Loan-to-deposit ratio
LTV	Loan-to-value ratio
MTP	Major trading partner
Naftogaz	National Joint Stock Company Naftogaz of Ukraine
NBU	National Bank of Ukraine
NGCA	Non-government controlled areas (of Donetsk and Luhansk regions)
NFSR	Net stable funding ratio
NFC	Non-financial corporation
NPE/NPL	Non-performing exposure / loan
OPEC	Organization of the Petroleum Exporting Countries
Oschadbank	JSC Oschadbank
Parliament	Verkhovna Rada of Ukraine (Supreme Council)
PFU	Pension Fund of Ukraine
Privatbank	Public Joint-Stock Company Commercial Bank ‘PrivatBank’
Q	quarter
ROE	Return on equity
SME	Small and medium-sized enterprises
SB	State-owned bank
SDR	Special Drawing Rights (IMF)
SOE	State-owned enterprise

SREP	Supervisory review and evaluation process
SSC	Single Social Contribution
SSSU	State Statistics Service of Ukraine
STSU	State Treasury Service of Ukraine
UAH	Ukrainian hryvnia
UIRD	Ukrainian Index of Retail Deposit Rates
Ukreximbank	JSC The State Export-Import Bank of Ukraine (JSC Ukreximbank)
Ukrgazbank	Public JSC Joint Stock Bank Ukrgazbank
US	United States of America
USD	US dollar
YTM	Yield to maturity
eop	end of period
bn	billion
k	thousand
m	million
M	month
r.h.s.	right hand scale
pp	percentage points
yoy	year-on-year
qoq	quarter-on-quarter