# INFLATION REPORT

October 2017

# PREFACE

The **Inflation Report** reflects the opinion of the National Bank of Ukraine (NBU) regarding the current and future economic state of Ukraine with a focus on inflationary developments that form the basis for monetary policy decision-making. The NBU publishes the Inflation Report quarterly in accordance with forecast frequency.

The publication of the macroeconomic forecast and its underlying assumptions aims at strengthening the transparency and predictability of the NBU's monetary policy. This should enhance society's confidence, an important prerequisite for anchoring inflation expectations and achieving price stability, which is the NBU's priority.

The Monetary Policy and Economic Analysis Department developed forecasts of inflation and other macroeconomic variables. The NBU Board approved the forecasts during a meeting devoted to monetary policy issues on 26 October 2017.[1] Macroeconomic projections, including inflation, comprise the principal input, but not the only one, the NBU Board considers in its decision-making. In addition to the projections of inflation and other macroeconomic variables, the NBU Board takes into account any new information appearing after the forecast has been developed. The assessment of risks to the outlook or relations between macroeconomic parameters may vary between members of the NBU Board.

The analysis in the Inflation Report is based on the macroeconomic data available at the date of its preparation; therefore, the time horizon of the analysis for some indicators may vary. This report used 25 October 2017 as the cut-off date for the data.

*The Inflation Report is a translation of the original Report in Ukrainian. In case of any discrepancies between the original document and its translation to English, readers should consider the Ukrainian version of the Report as correct.*

[1] NBU Board Decision No. 691-D as of 26 October 2017 *On the Approval of the Inflation Report.*

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# TERMS AND ABBREVIATIONS

| ATO | Anti-Terrorist Operation |
|---|---|
| NGCA | Non-government controlled area |
| Core CPI | Core consumer price index |
| GDP | Gross domestic product |
| GVA | Gross value added |
| SESU | State Employment Service of Ukraine |
| SSSU | State Statistics Service of Ukraine |
| SFSU | State Fiscal Service of Ukraine |
| EU | European Union |
| SSC | Social Security Contribution |
| ECB | European Central Bank |
| FTA | Free trade agreement |
| IKSO | Index of Key Sectors Output |
| IIF | Institute of International Finance |
| CPI | Consumer price index |
| PPI | Producer price index |
| Treasury | State Treasury Service of Ukraine |
| CMU | Cabinet of Ministers of Ukraine |
| BPM5 | IMF Balance of Payments Manual (5th edition) |
| BPM6 | IMF Balance of Payments And International Investment Position Manual (6th edition) |
| IMF | International Monetary Fund |
| ILO | International Labor Organization |
| MY | Marketing year |
| MFU | Ministry of Finance of Ukraine |
| NBU | National Bank of Ukraine |
| NEER | Nominal effective exchange rate |
| REER | Real effective exchange rate |
| OECD | Organisation for Economic Co-operation and Development |
| OPEC | Organization of the Petroleum Exporting Countries |
| MTP | Main trading partner |
| VAT | Value added tax |
| FDI | Foreign direct investment |
| RF | Russian Federation |
| CIS | Commonwealth of Independent States |
| WTO | World Trade Organization |
| USA | United States of America |
| DGF | Deposit Guarantee Fund |
| FED | Federal Reserve System |
| CEE | Central and Eastern Europe |
| EFF | Extended Fund Facility |
| FAO | Food and Agriculture Organization |
| MSCI | Morgan Stanley Capital International Inc. |
| PMI | Purchasing Managers' Index |
| USDA | United States Department of Agriculture |

| m | million |
|---|---|
| bn | billion |
| UAH | Ukrainian hryvnia |
| USD | US dollar |
| RUB | Russian rouble |
| M0 | cash outside banks |
| M3 | money supply |
| pp | percentage points |
| bp | basis points |
| USD/bbl | US dollars per 1 barrel |
| USD/ton | US dollars per 1 ton |
| USD/EUR | US dollars per 1 euro |
| UAH/USD | Ukrainian hryvnia per 1 US dollar |
| RUB/USD | Russian roubles per 1 US dollar |
| yoy | in annual terms; year-on-year change |
| qoq | in quarter terms; quarter-on-quarter change |
| mom | in monthly terms; month-on-month change |
| sa | seasonally adjusted |
| pa | per annum |

# 1. SUMMARY

**Headline inflation has exceeded the National Bank of Ukraine's (NBU) forecast, primarily owing to supply factors and higher production costs**

In September 2017, headline inflation accelerated to 16.4% yoy from 13.5% yoy in May 2017. Actual inflation came in higher than the NBU's forecast path as published in the July Inflation Report. This was primarily driven by faster growth in raw food prices, higher production costs, and a revival of consumer demand.

Growth in raw food prices continued to accelerate and considerably exceeded the NBU's forecast. Large export volumes and a decrease in supply on the back of a decrease of livestock pushed prices for meat and dairy products upwards. In addition, the unfavorable weather conditions in spring led to the loss of a part of the fruit harvest and the delayed ripening of some vegetables. This has affected domestic fruit and vegetable prices.

In Q3, the growth in raw food prices indirectly (through the impact on the cost of highly processed foods) affected core inflation, causing it to also exceed expectations. Equally important, an increase in production costs, including due to efforts to bring wages out of the shadows after the minimum wage was doubled earlier this year, contributed to a rise in core inflation . Also, the acceleration of core inflation was underpinned by an anticipated increase in consumer demand .

Prudent fiscal policy helped curb core inflation growth. Overall, through the first nine months of 2017, the consolidated budget generated unusually large overall and primary surpluses. Social expenditures grew at a slower rate, while other spending, including capital expenditures, continued to rise. Fiscal revenues continued growing rapidly thanks to general economic factors and tax changes. The share of non-tax and other nonrecurring proceeds increased. These include dividends from state-owned companies and the transfer to the state budget of the NBU's 2016 profit. Funds confiscated by court order were an additional budget source.

Although headline inflation was on a rise in Q3 2017, inflation expectations remained low and close to the 2017 target (8% ± 2 pp). As a result, the NBU did not ease monetary policy, having kept its key policy rate unchanged, but watched carefully inflation risks and developments in inflation expectations. Given unchanged key policy rate, the decline in interest rates on hryvnia-denominated market funds slowed down. In Q3 2017, deposits kept growing, although at a slower pace, mainly owing to household deposits. Banks continued to gradually increase hryvnia lending. Unlike last year when the lending revival came mostly at non-financial corporations, this year consumer loans has picked up substantially.

The FX market situation did not contribute to inflationary pressure. In general, the fundamental factors – especially a favorable external environment for Ukrainian exports – remained in effect. In Q3 2017, the hryvnia continued to strengthen against the US dollar, driven by a pickup in external demand on the back of an acceleration of economic growth in Ukraine's main trading partners (MTPs) and an improved price environment for Ukrainian exporters. In addition, ferrous metals and mining export volumes remained high despite the adverse consequences of the suspension of trade with the non-government controlled areas (NGCA) and the seizure of companies in those territories. A favorable global price environment for Ukrainian exports was a major factor in the strong export performance. Prices for steel, iron ore, and sunflower oil grew the most. That growth offset a decline in prices for most grains, which was related to the new harvest coming onto the market.

An excess of supply over demand on the FX market allowed the NBU to purchase foreign currency and continue liberalizing administrative FX restrictions.

At the end of August and throughout September, the hryvnia exchange rate weakened primarily owing to temporary factors and as the previous years' seasonality influenced the sentiment of economic players. The NBU smooth out the exchange rate volatility.

**Starting in Q4 2017, headline inflation will decrease and approach the targeted level. However, that will take longer than forecasted earlier**

The NBU has raised its inflation forecast for 2017 and 2018 as price growth accelerated in recent months and new inflationary factors appeared. This included a stronger increase in consumer demand and a rapid growth in pension payments, the minimum wage, excise taxes on tobacco products, etc.

Inflation is projected to decline to 12.2% by the end of 2017 (compared with 9.1% under the NBU's previous forecast) but will come above the end-year target (8% ± 2 pp). Price growth will continue to slow and will be close to the midpoint of the target range in Q3 2018. As of the end of 2018, inflation is projected at 7.3% (compared with 6.0% under the NBU's previous

forecast), within the inflation target range (6.0% ± 2 pp). Inflation projections for 2019 remain unchanged at 5.0% as of the year-end, at the midpoint of the target range (5.0% ± 1 pp).

***For reference:*** *Annual and quarterly inflation targets are set out in the [Monetary Policy Guidelines for 2018 and the Medium Term.]*

Inflation will retreat owing to a relatively tight monetary policy over the forecast horizon, the fading of the effect of higher food prices, and a further deceleration of imported inflation amid relatively low exchange rate volatility. Growth in both raw food prices and core inflation (which itself is heavily influenced by food prices) will slow down. Overall, underlying inflationary pressure will remain moderate over the forecast horizon.

In 2018–2019, administered prices will continue to grow fastest (by more than 10% annually) among all inflation components. This will be mainly driven by the expected gradual growth in global energy prices, which will pass through to domestic prices, as well as the government's policy to harmonize Ukrainian tobacco excise taxes with EU rates.

**In Q2 2017, domestic demand was the main driver of economic growth**

In Q2 2017, real GDP grew 2.3% yoy, outperforming the NBU's projections published in the July Inflation Report. The main reason for GDP growth was a faster-than-expected recovery of domestic demand. Investment continued growing rapidly. Private consumption picked up as well. This was primarily driven by increased household incomes as wages in the private sector were increased on the back of high demand for labor. A gradual improvement in consumer confidence thanks to the government's social initiatives was another factor, driving consumption growth.

However, households still tapped their savings to maintain consumption levels. Moreover, slow growth in other nominal household incomes (primarily from business operations and property income), high utility tariffs, and high unemployment continued to restrain consumer demand. The concurrent increase in the unemployment rate and growing demand for labor reveals large mismatches between labor supply and demand and shows that businesses are wary of increasing employment as labor costs rise. The supply of labor grew slightly on higher wages as some economically inactive individuals re-started their job search.

Domestically-oriented sectors registered the highest growth in gross value added (GVA), especially construction, trade, and several service sectors.

A revival of domestic demand boosted imports, while exports of goods and services declined in volume terms due to the adverse consequences of the suspension of trade with the NGCA and the seizure of companies in those territories. The latter effect was strongest in Q2 2017, according to the NBU's estimates. Structural changes related to the suspension of trade with the NGCA will continue to affect economic growth throughout 2017.

In Q3, investment and private consumption continued to grow. Industrial output remained close to last year's levels: a production increase in the machinery, chemical, and woodworking industries largely offset a drop in output in metals and mining and energy production. However, metallurgy and energy sector have adapted to the new conditions and shifted to new sources of raw materials faster than expected. An improvement in the external price environment was another important factor that supported the real sector. Lower crop yields this year and a further decline in animal breeding restrained growth in the agriculture sector. Overall, the NBU has upgraded its estimate for real GDP growth in Q3 2017 to about 2% yoy from its previous forecast.

Large imports of energy and machinery and the suspension of trade with the NGCA (which has affected metals exports) has prompted a widening of the deficit in commodity trade. This resulted in a current account deficit of USD 2.1 billion in January-August 2017. On the other hand, net financial account inflows increased to USD 3.4 billion, generated by both the public and private sectors. A decrease in foreign currency cash outside banks and an increase in foreign direct investment resulted in net inflows to the real sector. A surplus of the overall balance of payments and the successful sale of sovereign Eurobonds pushed international reserves up to USD 18.6 billion, or 3.7 months of future imports as of the end of September 2017, from USD 15.5 billion as of the start of the year.

**The NBU has revised its growth projections upwards**

In 2017, economic growth is projected at 2.2%, in-line with last year's growth rate. The upward revision was prompted by stronger performance across most industries, a pick-up in private consumption amid higher real wage growth, and strong corporate investment activity. An output decline in some industrial sectors owing to limited access to the goods produced by companies located in the non-government controlled areas (NCGA) has restrained economic growth this year. Net exports will make a notable negative contribution to the change in real GDP this year given the need to import more energy resources, like coal.

Real GDP growth is projected to accelerate to 3.2% in 2018 and 3.5% in 2019. Private consumption will continue to be the main driver of economic growth over the forecast horizon thanks to higher wages and pensions, improved consumer sentiment, and a pick-up in consumer lending. Meanwhile, investment growth will slow slightly due to higher production costs and a gradual accumulation of fixed capital. Companies in the agricultural, mining, metals, construction, and other sectors will be the most active in terms of investment activity.

The current account deficit will continue to hover around USD 4 billion over 2017-2019. Favorable terms of trade, higher productivity in the agricultural sector, and economic growth in Ukraine's main trading partners are expected to boost exports. However, imports will rise further, driven by domestic consumer and investment demand and energy import needs.

The current account deficit will be fully covered by the financial account inflows, which will enable further growth in international reserves. In 2017, a decline in FX cash outside banks will be the main source of capital inflows. However, the NBU expects that foreign direct investment in the real sector will rise and debt inflows to the private sector will recover in 2018 and 2019 as the investment climate improves. After the government's return to external capital markets in 2017, the NBU expects the government will continue issuing external government bonds in 2018 and 2019. This will help refinance a portion of public debt, most of which matures in 2019.

Further cooperation with the IMF is the key assumption of the forecast. The Extended Fund Facility (EFF) financing remains an important source of replenishing international reserves. Continued cooperation with the IMF eases access to financing provided by other international institutions and shows the extent of progress in structural reforms, which showcases the country's investment attractiveness. The NBU expects the IMF to issue the next tranche of the EFF in Q1 2018. Along with a surplus of the overall balance of payments, this is expected to boost international reserves to USD 22.2 billion, or 4.2 months of future imports as of the end of 2018. At the same time, large repayments of public debt in 2019 will decrease international reserves to USD 21.2 billion, or 3.9 months of future imports as of the end of 2019.

Traditionally for Q4 2017 large budget expenditures are expected, including due to an increase in capital expenditures using funds accumulated by state and local budgets. An increase in pensions, as outlined in the approved pension reform initiative, will be an additional factor of a rise in budget expenditures. Looking ahead, the government is expected to pursue a fairly tight fiscal policy given the need to keep the general government deficit in-line with Ukraine's commitments to the IMF (within 3% of GDP). The effect of expenses related to pension payments on the consolidated budget and the general government budget will largely be offset by higher revenues from the single social security contribution (SSC). This will be driven by efforts to bring the labor market out of the shadows, itself resulting from the increase in the required minimum pension qualifying term. Over the forecast horizon, the quasi-fiscal needs of the banking sector and the Deposit Guarantee Fund (DGF) will be moderate, while NJSC Naftogaz of Ukraine will require no budget financing.

**The NBU will need to pursue a fairly tight monetary policy to bring inflation back to the target**

The central bank sees several risks to its baseline inflation forecast. The temporary supply factors that have driven up raw food prices this year and caused consumption to pick up further amid higher social standards could increase fundamental inflation pressure. In addition, the Ukrainian economy could become more vulnerable if external official financing under the EFF is delayed.

To bring inflation back to the target level and in consideration of the above risks as well as worsened inflation expectations over the last two months, the NBU Board has decided to raise the key policy rate to 13.5% per annum. This tighter monetary policy is mainly aimed at preventing a further deterioration of inflation expectations, which will help reduce headline inflation and bring it closer to the target in 2018.

The tighter monetary policy will help rein in inflation through several channels. The higher policy key rate will encourage deposit inflows to the banking sector, thus curbing consumer demand. Higher rates will make hryvnia-denominated financial instruments more attractive than foreign currency instruments, which will help decrease future inflation through the exchange rate channel.

The NBU Board is convinced that achieving price stability is a requirement for sustainable economic growth. In particular, a sustained improvement in inflation expectations would allow banks to reduce interest rates over the mid-term.

If the above noted inflation risks materialize, the NBU may raise the key policy rate further to mitigate risks and help bring inflation back to the target.

In case inflation slows as forecasted, the IMF provides financing, and the government enacts a prudent fiscal policy, the NBU may return to the easing cycle of its monetary policy in late 2018.

# 2. CURRENT ECONOMIC SITUATION

## 2.1. EXTERNAL ENVIRONMENT

The external environment continued to improve for Ukraine's economy, reflecting an acceleration of economic growth in Ukraine's MTPs, an improvement of the overall price environment, and favorable conditions in global financial markets in particular for emerging markets. In Q2 2017, the weighted average annual GDP growth rate in Ukraine's MTPs accelerated from Q1 and reached a five-year high. That growth has come on a pickup in global trade and an increase in domestic consumption in Ukraine's MTPs. Based on Q3 2017 data, that positive trend has continued for those countries.

In Q3 2017, the ECPI Index[2], which tracks changes in global prices for Ukrainian exports, returned to growth. Prices for steel, iron ore, and sunflower oil grew the most. However, prices for most grains declined as the new harvest entered the market. At the same time, crude oil prices grew through the quarter, driven by increased demand and limited exports.

Strong global economic growth and loose monetary policy from leading central banks influenced global financial markets. However, intensified geopolitical tensions increased investors' risk aversion and weakened the US dollar. As a result, capital inflows to emerging markets continued, which helped strengthen their currencies.

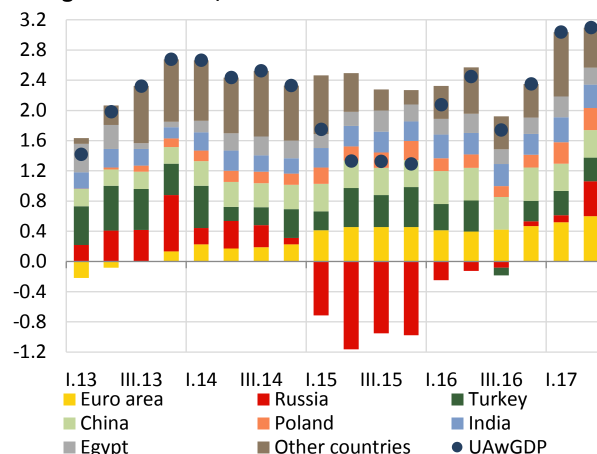
In Q2 2017, domestic demand and fiscal stimulus pushed the weighted average of GDP annual growth rate in Ukraine's MTPs (as expressed by changes in the UAwGDP Index) up to 3.1%, a five-year high. Key developments include:

– US GDP growth accelerated to 2.2% yoy in Q2 2017 owing to a pickup in domestic consumption, private investment (on improved corporate earnings), and exports (as the US dollar depreciated). The unemployment rate remained low, hovering around 4.3%-4.4%.

– Euro area GDP grew at the highest rate in the last six years. Monetary policy supported domestic demand and helped reduce corporate and household debt, lower unemployment fostered private consumption, investment recovered thanks to favorable financing conditions, and global economic growth propelled exports.

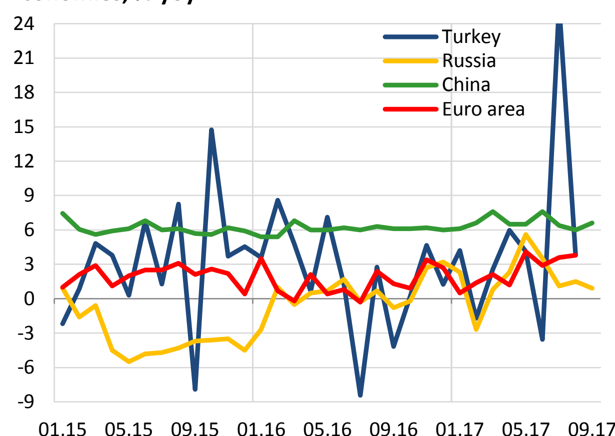
– Economic growth accelerated in CIS countries (except Moldova) on an increase in mining output, growth in construction and trade on a pickup in domestic demand. A slowdown in agricultural production growth and soaring imports restrained Moldova's economy.

**Contributions of Ukraine's MTP Countries to the Annual Change of UAwGDP, %**



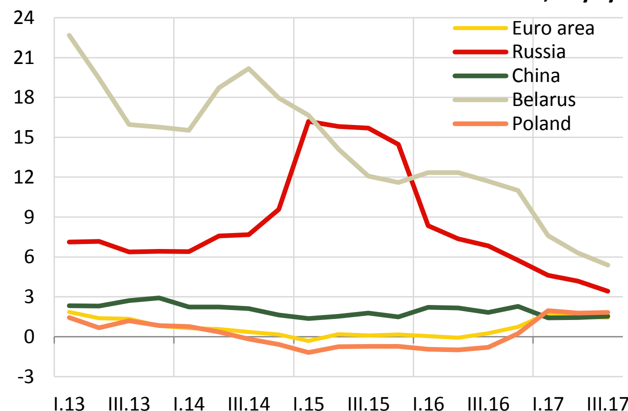

*Source: NBU staff estimates (preliminary data)*

**Industrial Production in Selected Advanced and Emerging Economies, % yoy**




*Source: National Statistical Offices*

**Consumer Price Indices in Ukraine's MTP Countries, % yoy**




*Source: National Statistical Offices*

[2] Read more about the ECPI Index in the Macroeconomic and Monetary Review (February 2016).

– The economies of Central and Eastern Europe (CEE) included in the index grew steadily thanks to an increase in domestic demand (as wages grew and unemployment declined as inflation approached target levels) and an expansion of external demand from the EU. CEE unemployment levels are among the lowest in the EU.

– China maintained its economic growth at the previous quarter's rate owing to faster growth in industry and agriculture, which boosted net exports, and construction (through investment). However, growth in financial intermediation and real estate slowed.

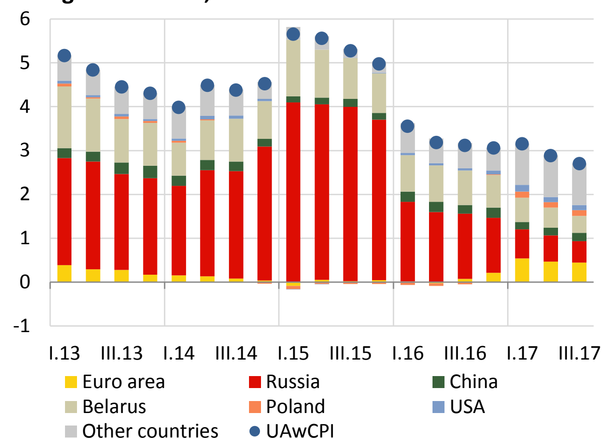
– Higher net exports, consumption, and investment underpinned rapid GDP growth in Turkey and India, although economic activity in India decelerated slightly due to a decrease in inventories ahead of a fiscal reform that began 1 July 2017 and which introduces new sales taxes.

The positive trends in Ukraine's MTPs have continued, based on Q3 2017 data. Year-on-year growth in raw material prices and robust domestic demand supported economic growth in the CIS and the EU. On the other hand, Chinese industrial production grew slower as mining output fell and as producers shouldered large expenses to introduce environmentally friendly technological processes. In Q3 2017, inflationary pressure from Ukraine's MTPs continued to ebb, as shown by changes in the UAwCPI index[3]. Inflation remained persistently low in developed countries, and it continued to slow in emerging markets.

In Q3 2017, the global pricing environment improved for Ukrainian exporters primarily on higher prices for steel, iron ore, sunflower oil, and fertilizers. On the other hand, prices for meat and grains decreased (with the exception of a few periods).

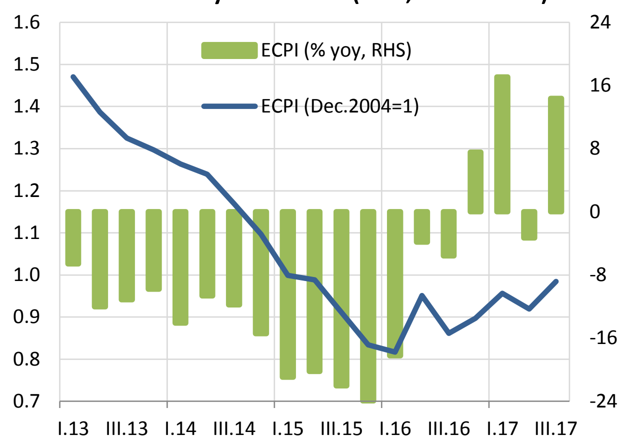
Steel prices surged amid stronger demand, while prices for certain types of steel have reached 4-5 year highs. Infrastructure projects and construction growth boosted steel consumption in China[4]. In spite of record output levels, China's steel exports decreased 28.5% yoy over January–August. China virtually suspended exports of billets and reinforcement bars because of antidumping duties and focused on meeting domestic demand, which allowed suppliers from other countries to raise their prices. The high domestic demand in China was also driven by a government decision to limit production in the country's north during the heating period, aimed at reducing air pollution emissions by 50%. In addition, steel consumption increased in India on a pickup in machinery production. Demand also grew in the US, with imports adding 20.6% yoy over January–August[5]. Demand in the EU was stable from the construction industry with a seasonal drop in supply related

**Contributions of Ukraine's MTP Countries to the Annual Change of UAwCPI, %**



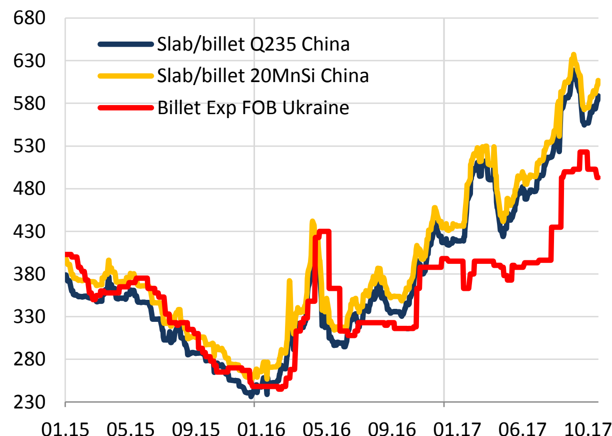

*Source: NBU staff estimates (preliminary data)*

**External Commodity Price Index (ECPI, Dec.2004=1)**




*Source: NBU staff estimates*

**Semi-Finished Steel Prices in China and Ukraine, USD/MT, as of 25.10.2017**




*Source: Thomson Reuters Datastream*

[3] The UAwCPI is an index of inflation in Ukraine's MTPs, weighted by the volume of Ukraine's goods and services imports from each country.
[4] The rapid realization of these projects is explained by China's desire to showcase the most favorable economic situation on the eve of the XIX National Congress of the Communist Party of China scheduled for 18 October 2017. There, the government will report on the country's progress since the previous congress and elect new top party officials.
[5] According to revised data from the American Iron and Steel Institute.

to the holiday period. In Turkey, demand grew after Ramadan and ahead of other Muslim holidays.

The robust growth in demand for steel boosted iron ore prices, especially for high-quality iron ore. However, starting in mid-September, prices for steel and iron ore fell materially as supply continued to grow before winter. In the US alone, average daily steel output growth accelerated to 8.1% yoy as of the end of September. In addition, iron ore prices decreased on weaker demand from Chinese steel mills due to greater inventories of semi-finished steel products and safety inspections in the country's 20 largest industries, including the steel industry.

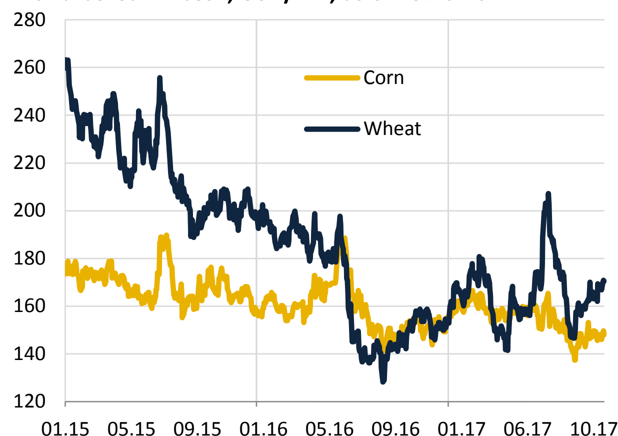
Grain prices mostly declined in Q3 2017. Wheat prices dropped, largely because of the new harvest from Ukraine, Russia, and Kazakhstan and an upgrade to the forecast for wheat yields in those countries. France, one of Europe's largest producers, continued harvesting and reported above-average yields and quality despite a drought last year and spring frosts. Moreover, the speculative decrease in prices for US winter wheat persisted after reports of high yields. On the other side, wheat prices have risen since September because of unfavorable weather conditions. Heavy precipitation in the west and east of Australia and drought in southern Wales may reduce wheat yields and quality. The US wheat harvest is also at risk as part of sown areas has been infected with wheat mosaic virus[6]. In addition, Hurricane Harvey has disrupted shipments from some US ports.

Corn prices declined on the back of high supply from South Africa and Latin America, which gathered bumper crop harvests, according to preliminary estimates. Reacting to the drop in corn prices and high global supply, the European Commission imposed and later increased import duties on corn supplies to the EU. That pushed prices up slightly at the end of the quarter.

Global sunflower oil prices grew, which is typical for the low season. The growth in oil and oil product prices was supported by an increase in rapeseed oil prices (due to lasting rains in Europe, which hampered harvesting activity and lowered crop quality) and soybean oil (due to unfavorable weather across the American Midwest). In addition, a decision by the US Department of Commerce to hike import duties on biodiesel from Argentina and Indonesia to protect domestic production also triggered growth in prices for vegetable oils.

In Q3, global meat prices decreased due to a substantial drop in wheat and corn prices, which are the main ingredients in mixed fodder, and a seasonal increase in supply. Inspections in the EU found traces of insecticides (used to fight bird lice), which partially supported poultry prices. A temporary closure of several poultry farms in the Netherlands and Poland reduced the supply of poultry in the

**World Cereal Prices*, USD/MT, as of 25.10.2017**

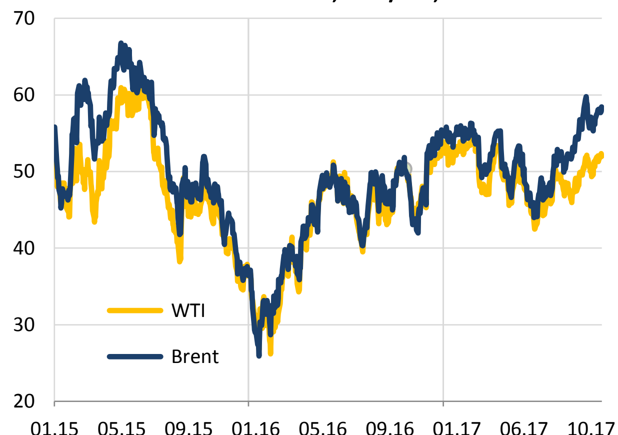



* Corn Yellow #2 Delivery USA Gulf
Wheat US No.1 HRW FOB K.City
*Source: Thomson Reuters Datastream*

**World Sunflower Oil Prices*, USD/MT, as of 25.10.2017**

* Ukraine FOB Black Sea
1Mth United States
Russia Ex-WHS Blk Earth
*Source: Thomson Reuters Datastream*

**Brent and WTI Crude Oil Prices, USD/bbl, as of 25.10.2017**




*Source: Thomson Reuters Datastream*

[6] Preliminary estimates put the potential wheat production decline at up to 10% of the expected US harvest, which would make it the largest decline since 2006. The mosaic virus has already spread over wheat fields in the states of Kansas, Colorado, Oklahoma, and Nebraska.

EU, Switzerland, and Hong Kong. Only prices for lamb continued to grow.

Global crude oil prices increased moderately because of:

– High demand from India and China

– A sharp decrease in inventories of oil and oil products in the US caused by Hurricane Harvey, which cut oil processing to its lowest level since 2010

– Lower oil exports by OPEC countries owing to interruptions in oil production and shipments (especially from Libya, Nigeria, and Venezuela) and limited exports from Saudi Arabia, Kuwait, and the UAE that confirmed their willingness to comply with the requirements of the OPEC+ agreement (even though the agreement concerns only production volumes)

– Geopolitical tensions in some countries

Price growth accelerated substantially in mid-September, followed by a correction of prices. The acceleration was driven by an increase in demand from the US as oil refineries gradually resumed operations after Hurricane Harvey and later Hurricane Maria affected drilling activity. On the other hand, oil prices were held back by further growth in oil production in Nigeria, Libya, Qatar, and Angola, which partially offset the effect of OPEC+ . In addition, China, one of the largest oil importers, announced a decision to phase out gasoline and diesel vehicles, which helped curb prices.

In Q3, global financial markets performed positively, supported by faster global growth thanks to stimulative monetary policy pursued by leading central banks. On the other hand, markets were under pressure due to geopolitical tensions caused by the escalation of the conflict between the US and North Korea, which prompted a flight to haven assets and the US dollar depreciation .

Developed market stock indices were mostly driven higher by:

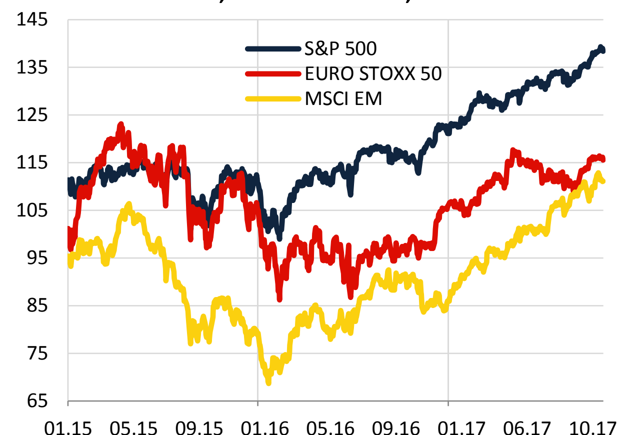
- A decrease in expectations of tighter monetary policy by the US Federal Reserve as inflation remains sluggish and a divergence in inflation forecasts by members of the Federal Open Market Committee

- Corporate earnings beating expectations in Q2 2017

- Favorable macroeconomic data from the US and the euro area

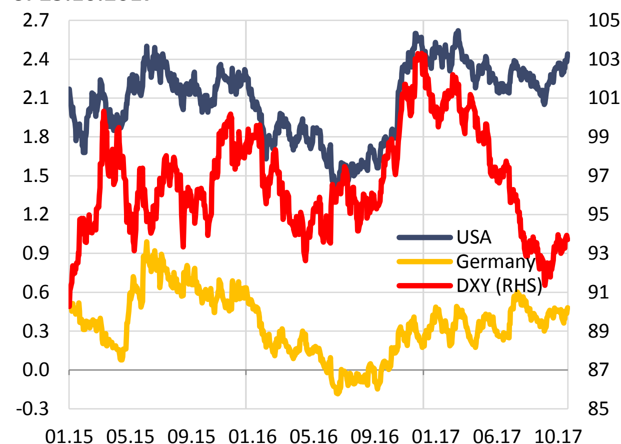
At the same time, political instability continued to cap the growth of leading equity indices. Investors were cautious about the G20 meeting of heads of central banks and finance ministers, especially given the disparate approaches championed by President Trump and other leaders. The crisis of confidence in the US president's policies sharpened after a scandal in July involving the president's son and the US Senate's rejection of draft

**World Stock Indices, 01 Jan 2014=100, as of 25.10.2017**



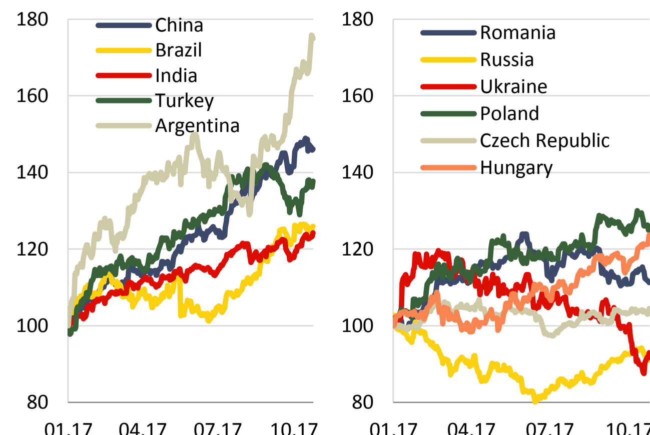

*Source: Thomson Reuters Datastream*

**Government bonds yields (10 year) of USA and Germany, as of 25.10.2017**




*Source: Thomson Reuters Datastream*

**Emerging market stock indices, 01 Jan 2017=100, as of 25.10.2017**




*Source: Thomson Reuters Datastream*

healthcare legislation tabled by Republicans. Political instability was also a factor affecting European stock indices as September elections in Germany drew nearer. European indices came under further pressure from a worsening price competitiveness of European exports and lower corporate profits weighed down by the euro's strength against the US dollar, fading expectations for the European Central Bank (ECB) to end its QE program, and the failed third round of Brexit negotiations.

However, at the end of September, the ECB announced plans to revise its monetary policy in October and the Fed reiterated its outlook for an interest rate increase by the end of this year and announced plans to reduce assets starting in October 2017, all of which helped leading stock indices.

Despite a demand for safe assets, emerging markets continued to benefit from:

– Better-than-expected H1 results, the growth differential between emerging markets and the advanced countries, and improved economic prospects, which prompted an upward revision of corporate earnings forecasts

– Improved investor expectations for the economies of China and Russia on the back of strong macroeconomic data releases

– An appreciation of domestic currencies relative to the US dollar

– Lower financial vulnerability of emerging markets as they have become less dependent on external financing thanks to lower current account deficits in recent years

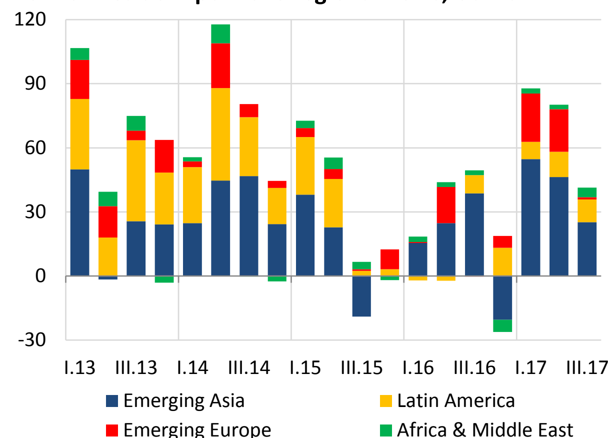
– Low asset valuations and high yields

– A recovery in global commodity prices

However, total capital inflows decreased from previous quarters as investor interest in equities faded with the latter generally seen as a riskier asset. On the other hand, investors continued to invest in emerging market bonds in search of higher yields. In Q3, many emerging countries benefited from favorable debt market conditions by raising debt capital (read more in the *Sovereign Ukrainian Eurobonds: Regaining Access to Capital Markets* box on page 40).

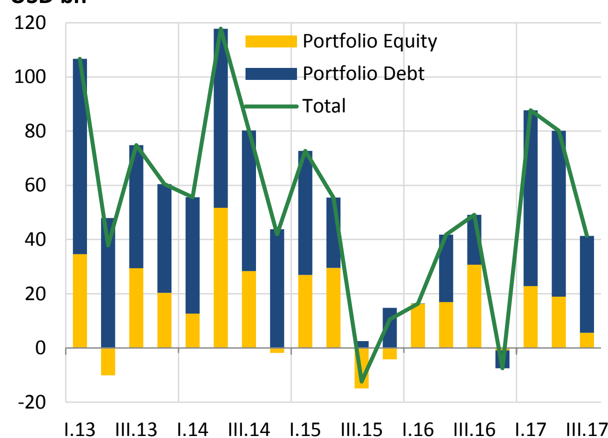
Capital inflows amid the US dollar's depreciation contributed to a strengthening of most emerging market currencies. The Kazakhstan tenge did not track that trend (due to a drop in exports after the country was squeezed out of the oil market, and large payments under the external debt), nor did the Argentinian peso (loose fiscal policy and high inflation) or the Georgian lari (political uncertainty ahead of local elections).

**Net non-resident portfolio regional flows, USD bn**



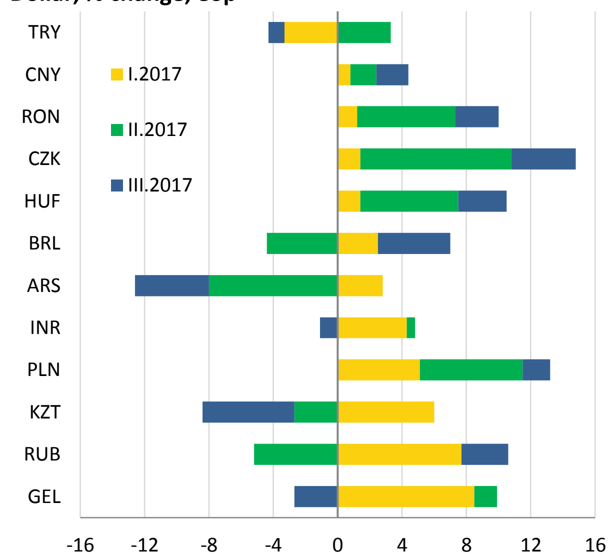

*Source: Institute of International Finance*

**Net non-resident portfolio flows into emerging markets, USD bn**




*Source: Institute of International Finance*

**Exchange Rates of Emerging Market Currencies versus US Dollar, % change, eop**




*Source: Thomson Reuters Datastream*

# 2.2. DOMESTIC ECONOMY

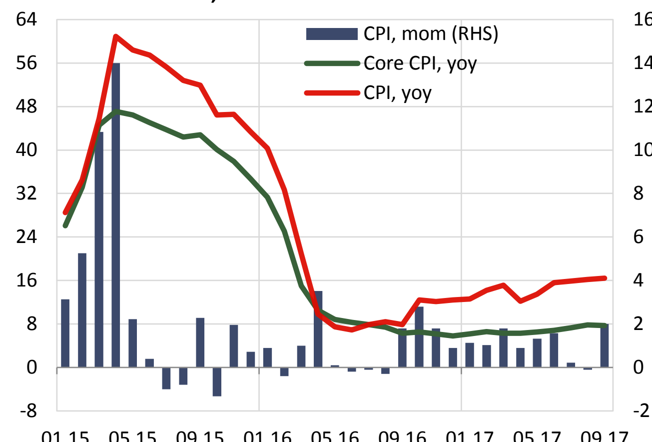
## 2.2.1. INFLATION DEVELOPMENTS[7]

In September 2017, headline inflation accelerated to 16.4% yoy from 13.5% yoy in May 2017. Actual inflation came in higher than the NBU's forecast from the July Inflation Report. This primarily resulted from faster growth in raw food prices, higher production costs, and a recovery of consumer demand.

Growth in raw food prices continued to accelerate and considerably exceeded the forecast. Large export volumes and a decline in supply on the back of a decrease of livestock pushed prices for meat and dairy products upwards. In addition, the unfavorable weather conditions of this past spring led to a loss of a part of the harvest and reduced quality for some fruits and vegetables. That has affected domestic fruit and vegetable prices. At the same time, the annual growth rates of administered prices and tariffs and fuel prices decreased moderately from the levels of May against a high comparison base.

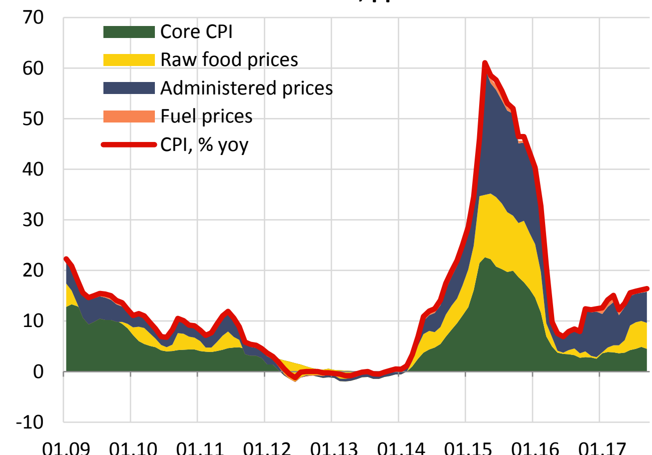
In Q3, the growth in raw food prices affected the cost of processed foods, which indirectly impacted core inflation, pushing it to also exceed the forecasted level. Higher services prices also contributed to the acceleration of core inflation. That came on an increase in production costs, including as a result of efforts to bring wages out of the shadows. An anticipated pickup in consumer demand was another factor driving the acceleration of core inflation. However, a prudent approach to fiscal policy and low levels of imported inflation on the back of favorable FX market conditions since the start of the year have prevented an even higher inflation.

**Inflation Indicators, %**




*Source: State Statistics Service of Ukraine*

**Contributions to Annual Inflation, pp**




*Source: State Statistics Service of Ukraine, NBU staff estimates*

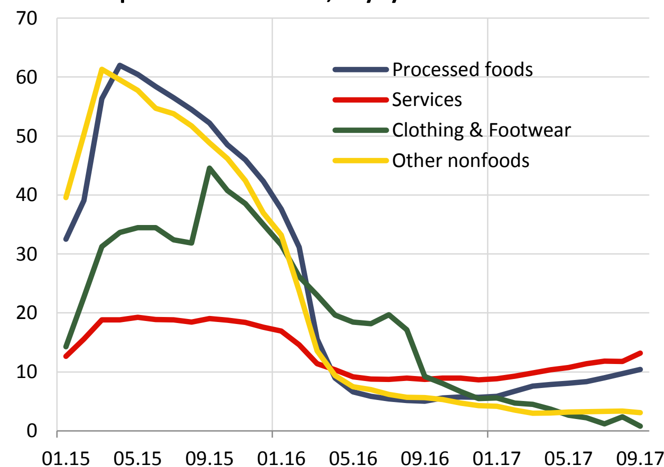
### Core Inflation

Core inflation accelerated to 7.7% yoy in September from 6.5% yoy in May, driven by stronger secondary effects from the increase in raw food prices, higher production costs, and a pickup in consumer demand.

Prices for processed foods continued to accelerate, reaching 10.4% yoy in September. Prices for meat and dairy products continued to grow rapidly (30.1% and 27.8% yoy, respectively) on lower animal breeding activity, large export volumes, and high global prices. In addition, an increase in production costs prompted prices for bakery, farinaceous, and confectionery products to accelerate.

The growth rates of services prices that contribute to core inflation also increased (13.2% yoy) on higher production costs, including labor costs. According to NBU estimates, the doubling of the minimum wage impacted inflation primarily through increased production costs. It is estimated to have

**Main Components of Core CPI, % yoy**




*Source: State Statistics Service of Ukraine, NBU staff estimates*

[7] Prices for items in the basket of goods as defined by the National Bank of Ukraine (NBU) are based on data from the State Statistics Service of Ukraine (SSSU) and have been updated with new weighting methodology.

added approximately 2 pp to annual inflation in September 2017. The growth of dwelling maintenance fees accelerated, as did prices for recreation, restaurants, hotels, and other services. Secondary effects from the growth in raw food prices additionally pushed restaurant prices upwards. A gradual revival of demand was another driver of price growth in the restaurant sector.

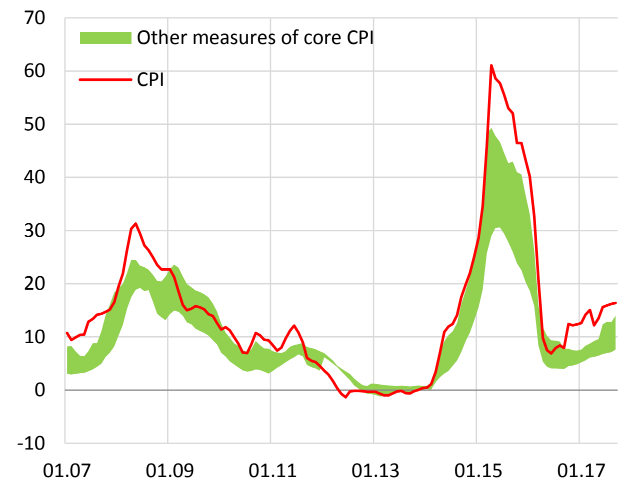
According to the Q3 2017 business outlook survey, companies raised their expectations for growth in prices for their products/services over the following 12 months[8]. Corporates expect selling prices to grow, including because of a stronger impact of labor costs, global prices, and demand for their products. At the same time, the weaker impact of energy and raw material prices lowered companies' expectations of further growth in their selling prices[9].

Alternative indicators of core inflation [10]also pointed to a minor increase in underlying inflationary pressure, including because of an increase in consumer demand. At the same time, by all calculation methods, core inflation remains well below headline inflation.

With favorable FX market conditions since the start of the year and slower inflation in Ukraine's MTPs, the annual growth rates of prices for imported consumer goods – clothing and footwear, home textiles, household appliances, and some personal care products – continued to decline. Those results are generally in-line with the NBU's estimates of the pass-through effect of the changes in the nominal effective exchange rate (NEER) to inflation[11].

The favorable FX market conditions since the start of the year, namely the strengthening of the hryvnia against the US dollar, have led to an improvement in inflation expectations for the following 12 months, which also reined in underlying inflationary pressure. The expectations of professional forecasters (financial analysts) improved at the fastest pace. However, in September–October 2017, overall inflation expectations deteriorated slightly. The deterioration was driven by FX market conditions[12], current high inflation, and the government's announced plans to raise social standards.

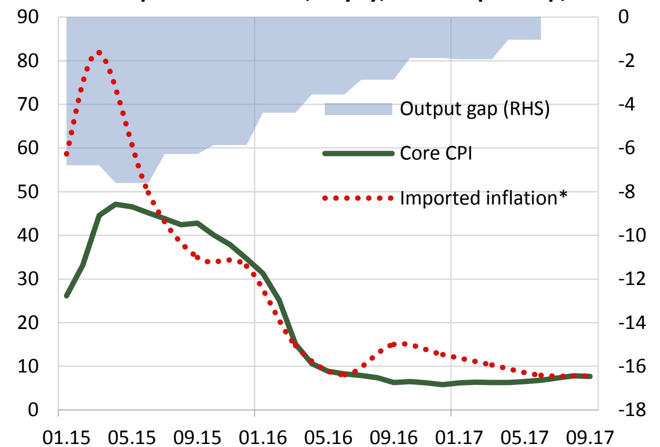
**Main Inflation Trend, %**




* Green field – a range of core inflation indices

*Source: NBU staff estimates*

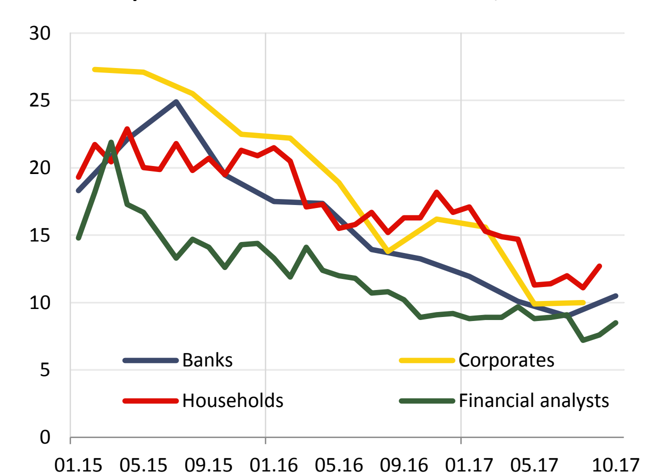
**Core and Imported Inflation, % yoy, and Output Gap, %**




* Imported inflation is calculated as a quarterly change of UAwCPI, the indicator of consumer inflation in the countries - MTP, adjusted for the change of Hryvnia NEER (for more information see Inflation Report April 2016, p. 9)

*Source: State Statistics Service of Ukraine, NBU staff estimates*

**Inflation Expectations for the Next 12 Months, %**




*Source: NBU, GfK Ukraine*

[8] In Q3 2017, businesses' expectations for growth in prices of their products/services over the following 12 months (the difference between the "prices will increase" and "prices will decrease" responses) increased 2.6 pp qoq to 61.4%.

[9] In Q3 2017, the share of businesses reporting that labor costs had an impact on the change in their initial prices grew 0.7 pp qoq to 49.3%, while the share of businesses which named global prices as a factor for price change increased by 0.6 pp to 16.0% and the share of those saying that demand for the company's products drove prices higher rose 0.8 pp to 13.4%. In Q3, the share of companies reporting that energy prices had an impact on their initial prices declined 4.0 pp qoq to 61.8% and the share of companies reporting that input prices impacted their initial prices decreased 1.2 pp to 60.6%.

[10] Read more in the Inflation Report from January 2017 (pages 20–21).

[11] Read more in the Inflation Report from October 2016 (pages 17–18).

[12] Empirical studies (O. Coibion and Y. Gorodnichenko, 2015) show that inflation expectations in Ukraine depend not only on the current rate of inflation, but also on changes in the UAH/USD exchange rate.

### Non-Core Inflation

Non-core inflation also accelerated to 25.7% yoy in September from 20.7% yoy in May, although it was expected to decelerate slightly. This is primarily due to the rapid increase in raw food prices.

In September, raw food prices accelerated to 28.2% yoy from 13.8% in May. Stronger supply factors were the main factors that caused the rate of increase to exceed the forecast. The acceleration was also driven by a low comparison base and a gradual recovery of consumer demand for food products in response to an increase in household incomes.

Annual growth rates of prices for meat and milk continued to increase in response to higher global prices, large export volumes, and lower supply on the back of a decrease in livestock. Due to unfavorable weather last spring and in August, prices for vegetables and fruits also grew at a faster pace, reaching 37.6% and 26.6% yoy, respectively. Egg prices also rose again (37.0% yoy) as some countries lifted restrictions on Ukrainian poultry imports.

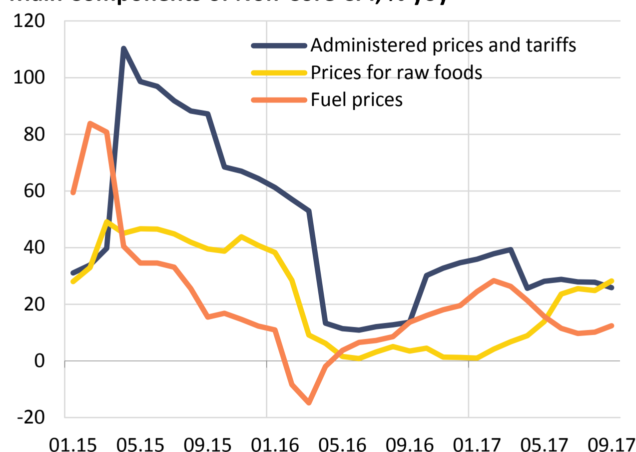
Growth in administered prices and tariffs slowed to 25.9% yoy, primarily against a favorable comparison base (last year hot water tariffs rose July, cold water and sewage rates rose in August, and electricity tariffs rose in September). However, that growth rate still exceeded the forecast as other administered prices grew faster than expected. Prices for tobacco products increased 41.1% yoy, reflecting distribution difficulties in previous months. Prices for alcoholic beverages also accelerated (17.2% yoy) after the government adopted a resolution on raising minimum prices as of 9 September. In addition, growth in prices for bread also accelerated (18.4% yoy) owing to higher costs, including wages. Growth in passenger rail fares picked up to 7.4% yoy as the costs of additional services (bed linens, sales commissions) rose. Passenger road fares also increased (23.2% yoy), mostly due to higher public transport fares in Kyiv and other cities.

As expected, fuel price growth decelerated to 12.4% yoy thanks to a decline in oil prices and a higher comparison base. However, the trend reversed in the second half of the quarter and fuel price growth came in slightly above the forecast. That was primarily due to a sharp increase in liquefied gas prices on the back of a supply deficit in August, as well as growth in prices for other types of fuel in September and the hryvnia's depreciation against the euro (the fuel excise tax is calculated in euro, according to legislation).

### Producer Price Index

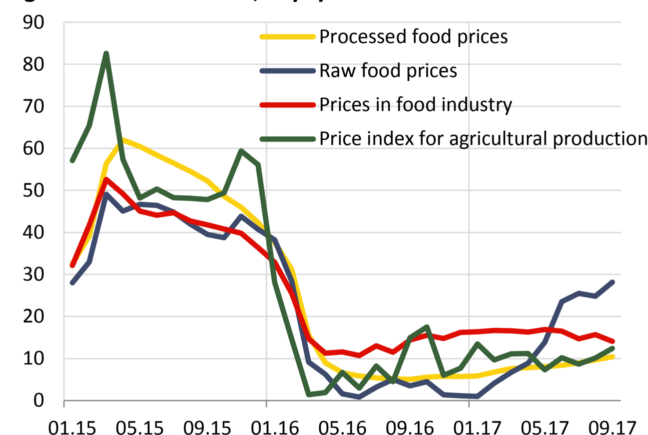
In June–September 2017, the producer price index (PPI) continued to decelerate, coming in at 22.4% yoy in September, down from 27.1% yoy in May. As in previous months, the PPI trend was primarily shaped by price developments on global commodity markets, as Ukrainian

**Main Components of Non-Core CPI, % yoy**



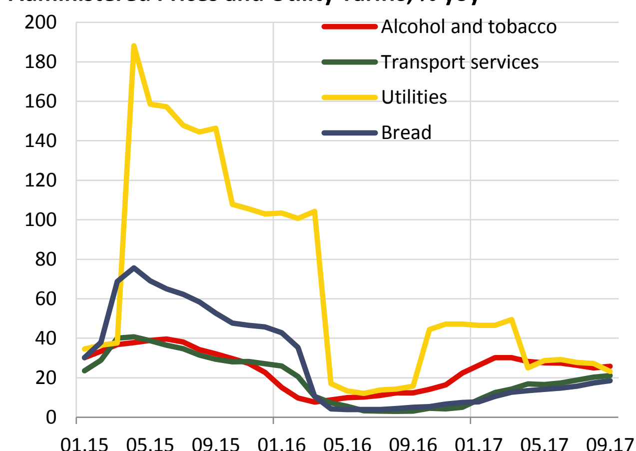

*Source: State Statistics Service of Ukraine; NBU staff estimates*

**Raw and Processed Food Prices, Prices in Food Industry and Agricultural Production, % yoy**




*Source: State Statistics Service of Ukraine*

**Administered Prices and Utility Tariffs, % yoy**




*Source: State Statistics Service of Ukraine*

companies are typically export-oriented. The PPI trend varied across individual industries. Flat rail cargo transport rates also contributed to the slower growth in the PPI.

Prices in the mining industry slightly accelerated to 35.1% yoy. Metal ore prices grew 29.3% yoy in response to higher iron ore prices. Prices in crude oil and gas production increased 13.3% yoy following an upturn in global oil prices. Higher global prices and a decrease in Ukrainian inventories caused coal prices to accelerate substantially.

An increase in global prices and higher prices at the lower end of the production chain drove metallurgy prices up (30.9% yoy). Prices for coke and petroleum products grew slower (46.7% yoy, down from 79.5% in May) against a favorable comparison base.

Chemical industry prices also grew faster (17.9% yoy) following an increase in global fertilizer prices and renewed anti-dumping duties on Russian nitrogen fertilizers. Prices for motor vehicles accelerated (17.9% yoy), among other things, on greater demand. Producer prices also increased considerably in electrical equipment (17.0% yoy), driven by a global deficit of graphite electrodes.

At the same time, the rise in prices for the supply of electricity, gas, steam, and air conditioning decelerated to 20.8% yoy in September from 37.9% in May. This was particularly due to a large share of nuclear power in the total electricity production.

Prices in the food industry decelerated moderately: to 14.1% yoy in September from 16.9% in May. Sugar prices grew slower (12.4% yoy) as the previous season's inventories were sold. Growth in dairy prices slowed as well to 25.7% yoy, primarily against a high comparison base. In contrast, growth in beverage prices accelerated to 17.3% yoy as the government raised minimum prices for alcoholic drinks. Meat and bakery product prices also gained momentum, up to 29.5% and 15.7% yoy, respectively.

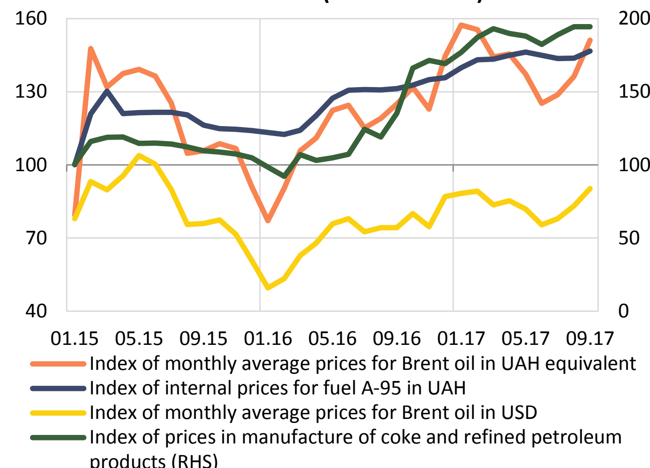
The growth in PPI had a relatively low impact on consumer prices[13]. In general, the NBU estimates that only price changes in the production of food, drinks, and tobacco products are closely related to the *food products and non-alcoholic beverages* item in the consumer price index (CPI).

### GDP Deflator

In Q2 2017, the GDP deflator remained high at 20.0% yoy, despite a slight deceleration, primarily due to rising prices for Ukrainian exports.

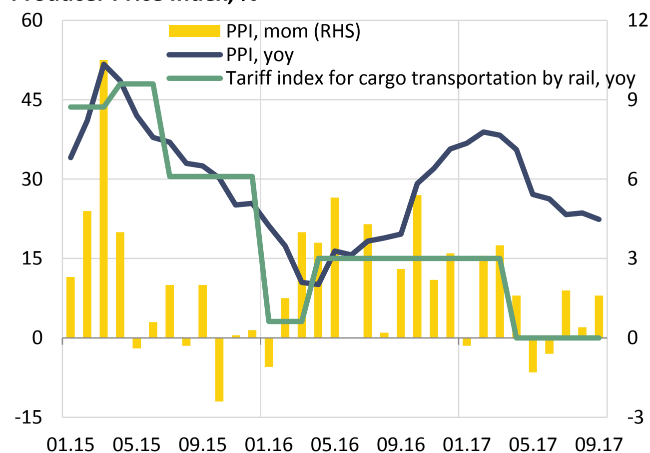
Prices for imported goods and services also continued growing rapidly, driven both by high investment demand and increased prices for imported coal. The deflator of gross capital formation accelerated accordingly. Another factor was the steady growth in construction prices, driven by the

**Price Indexes for Fuel and Oil (12.2014 = 100)**



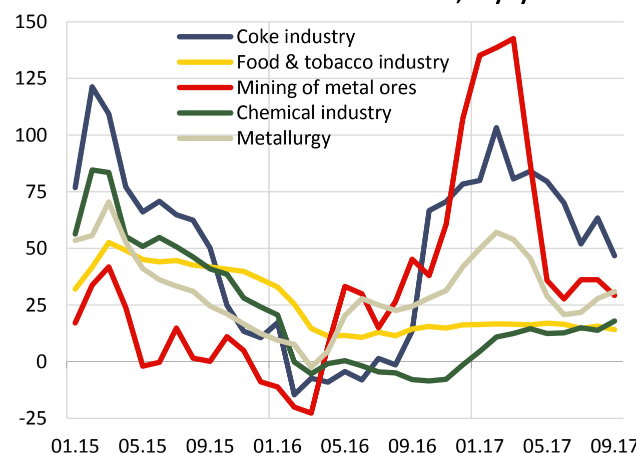

*Source: State Statistics Service of Ukraine, Thomson Reuters Datastream*

**Producer Price Index, %**




*Source: State Statistics Service of Ukraine*

**Producer Price Indexes in Select Industries, % yoy**




*Source: State Statistics Service of Ukraine*

[13] Read more about the impact of industrial inflation on consumer prices in the July 2016 Inflation Report, pages 16-17.

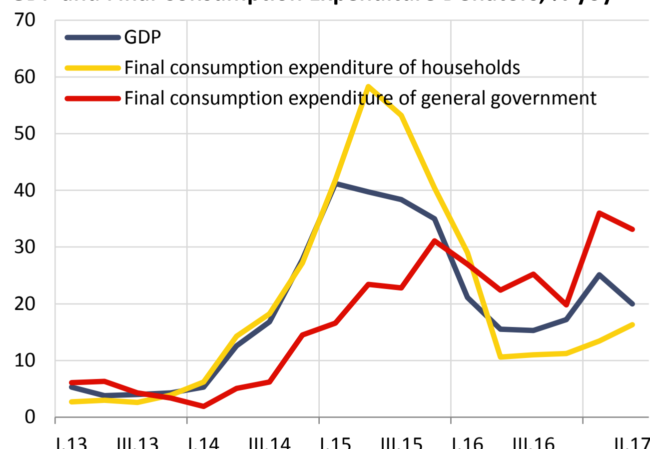
substantial growth of investment into the construction sector.

In addition, despite a slight deceleration in Q2 2017, the deflator for government final consumption expenditures grew rapidly, primarily driven by high growth in public sector wages as the minimum wage has doubled since the start of the year. The deflator indicators came in higher than the GDP deflator in budget-funded sectors, especially in public administration and defense (33.4%), education (48.5%), and healthcare and social security (36.6%).

The deflator for household final consumption expenditures also accelerated, primarily owing to the impact of supply factors on consumer prices and a revival of consumer demand.

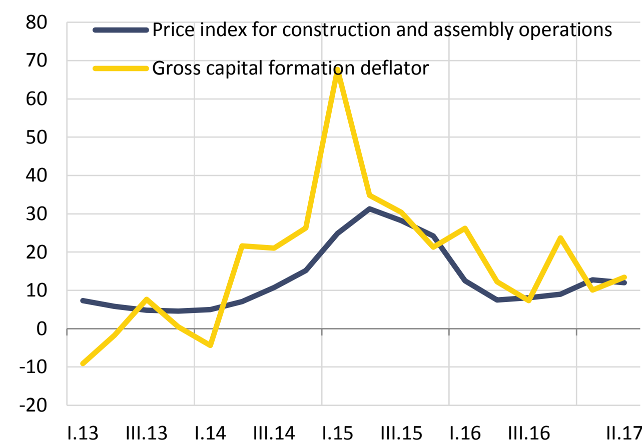
In agriculture, price growth slowed slightly, although it continued to depend on external demand. A decrease in global prices for some grain crops offset the rapid growth in prices for animal breeding products that has been driven by high export volumes. The deflator for changes in inventories also decelerated because of slower growth in gas prices in Q2 2017.

**GDP and Final Consumption Expenditure Deflators, % yoy**



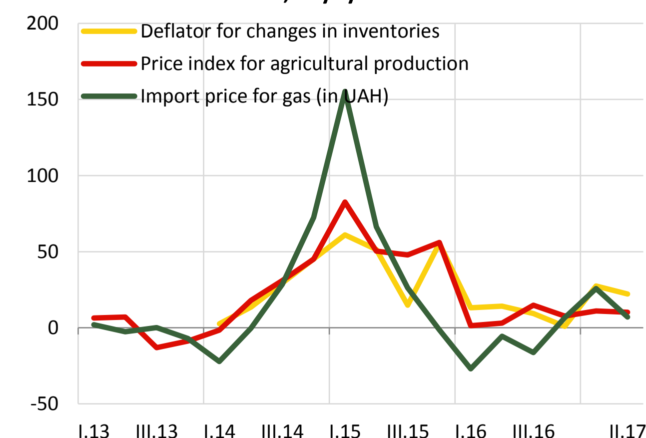

*Source: State Statistics Service of Ukraine*

**Gross Capital Formation Deflator and Price Index for Construction and Assembly Operations, % yoy**




*Source: State Statistics Service of Ukraine*

**Deflator for changes in inventories, Price Index for Agricultural Production and Gas Prices, % yoy**




*Source: State Statistics Service of Ukraine; NBU staff estimates*
*Gas prices – prices of gas imports in UAH equivalent*

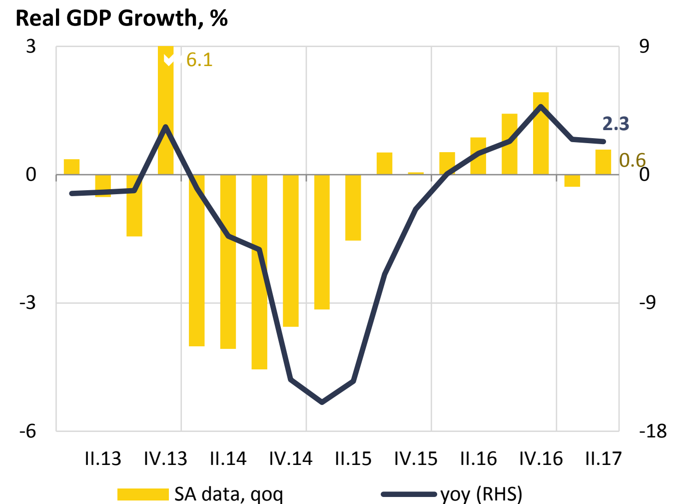
## 2.2.2. DEMAND AND OUTPUT

Real GDP growth came in at 2.3% yoy in Q2 2017, above the NBU's estimate published in the July 2017 Inflation Report. The revival of domestic demand also exceeded the NBU's estimates and contributed to real GDP growth. Private consumption picked up, while investment continued to grow rapidly. Domestic-oriented sectors like construction, trade, and service sectors saw the largest increases in gross value added (GVA).

While the revival of domestic demand boosted imports, exports of goods and services declined, as expected, due to the adverse effect of the suspension of trade with and seizure of companies in the non-government-controlled areas (NGCA). The NBU estimated that this effect was strongest in Q2 2017. As a result, the negative contribution of net exports to the change in GDP grew to 3.6 pp. Structural changes resulting from the suspension of trade with the NGCA will weigh on economic growth through all of 2017. However, microdata provided by some metallurgical plants suggest most plants are adjusting to the new conditions and securing new raw material supplies faster than expected. An improved global price environment also supported the real sector growth.

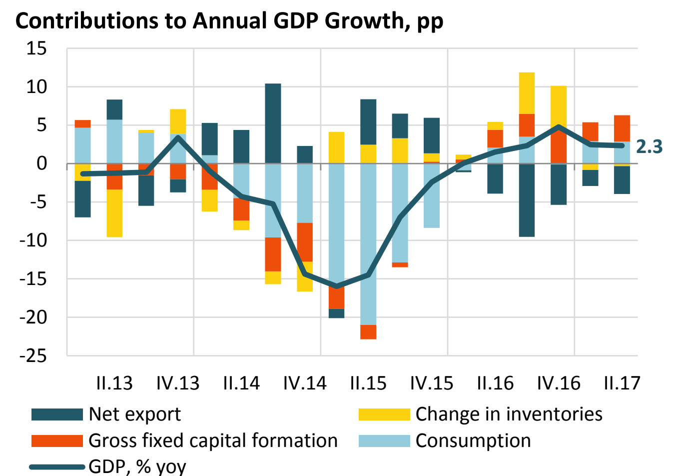
Investment and consumer demand kept growing in Q3. Industrial output was nearly unchanged from last year's levels: an increase in output across many industries like machinery and chemicals almost offset a decline in mining, smelting, and energy output. Crop production has declined this year, while pig breeding output has dropped significantly. According to the NBU's preliminary estimates, GDP growth decelerated to approximately 2% yoy in Q3.

**Real GDP Growth, %**




*Source: SSSU*

**Contributions to Annual GDP Growth, pp**



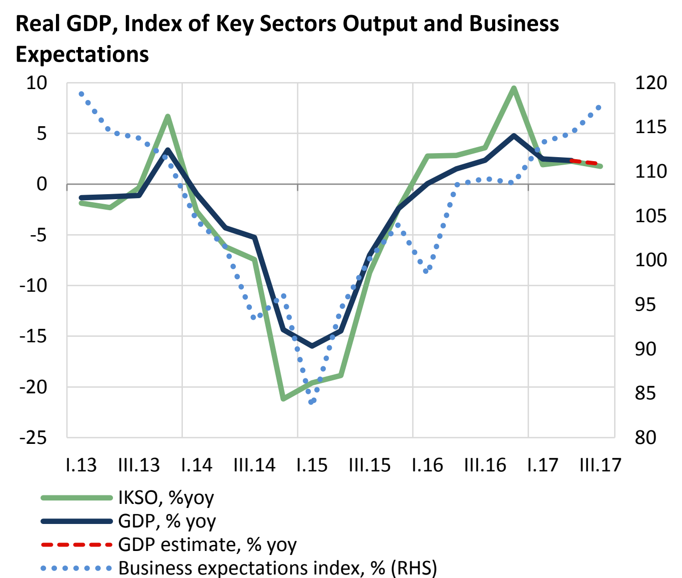

*Source: SSSU, NBU staff estimates*

### Domestic Demand

Since mid-2015, the Ukrainian economy has been gradually recovering from a severe crisis. Real GDP grew 2.4% yoy in H1. As in 2016, domestic demand has been the major driver of the economy's growth. The investment demand increased particularly rapidly. Growth in gross fixed capital formation accelerated to 23.7% yoy in Q2 2017, despite the NBU's expectations that investment growth would slow sharply in 2017 against a high comparison base. Investment reached 19%[14] as a share of GDP after dropping to 13% in 2014 and 2015, a period when investment underperformed significantly.

Investment was driven by a rapid improvement in the business outlook, which reached a level not seen since mid-2013. Improved corporate performance was another driver: the corporate sector returned to profitability in H1 2016 for the first time in two and a half years, and continued to generate profits in H1 2017. Higher global commodity prices, especially for steel, and high export proceeds from agricultural products after last year's bountiful harvest contributed to the recovery of profitability. That boosted

**Real GDP, Index of Key Sectors Output and Business Expectations**




*Source: SSSU, NBU staff estimates and surveys*

[14] Based on seasonally adjusted data.

investment, since the bulk of investment (73% in Q2 2017) was financed by internal corporate funds. The share of investment financed through budget funds grew from 5% in Q2 2016 to almost 9% in Q2 2017 as budget funds were used to finance capital projects, including road and transport projects. Despite strong growth in residential investment (26.8% yoy) driven by an increase in residential construction and housing supply, the share of household residential investment, at slightly over 8%, was practically unchanged in the composition of financing sources. Foreign investment and lending by banks contributed an insignificant amount to the revival of investment.

Investment in machinery and equipment continued to rise at the fastest pace in Q2 2017, although growth slowed to 33.5% yoy. Investment in these items reached a low in mid-2014, with its share of gross fixed capital formation shrinking to 35.5%. However, as of Q2 2017 investment in fixed assets has grown to more than 47% as a share of gross fixed capital formation after investment in the means of production started growing steadily over time. Companies mainly replaced outdated fixed assets, a situation that partly came about because of the underinvestment in 2014 and 2015. At the same time, many sectors invested to enable higher productivity. Agricultural companies invested to boost crop production and animal breeding output, while industrial companies invested to reduce material costs. Other companies invested to strengthen their competitive position or to enable new market entry.

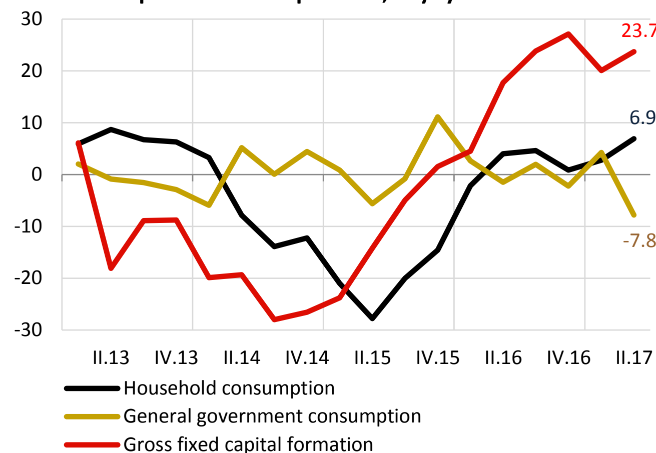
Nevertheless, investment growth in the agricultural and industrial sectors slowed to 30% and 20% yoy, respectively, against a high comparison basis. But since those sectors are the largest in the economy, they remained the main contributors to the overall growth in capital investment. However, in Q2 2017, most other sectors outperformed the industrial and agriculture sectors in terms of investment growth. Investment grew materially in the public sector and in related sectors like public administration and defense, education, health care, arts, sports activities, entertainment, and recreation, which saw growth rates of between 47% and 79% yoy.

In Q2, companies continued to export and sell domestically inventories from last year's record crop harvest. Overall, inventories made a small negative contribution to GDP (0.3 pp) in Q2.

The growth of household consumer demand accelerated to 6.9% yoy in Q2. Although real disposable income growth slowed to 1.7% yoy, the growth in household consumption was driven by better consumer sentiment, which reached a high since mid-2014 (in terms of quarterly averages)[15]. Households expect an improvement in their financial standing. However, households were forced to tap into savings to finance increased consumption levels.

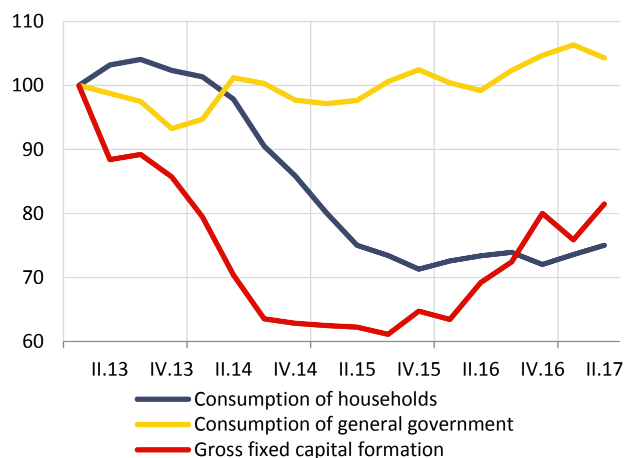
In Q2, growing consumer demand pushed up households' real final consumption expenditures on practically all goods

**Domestic Expenditure Components, % yoy**




*Source: SSSU*

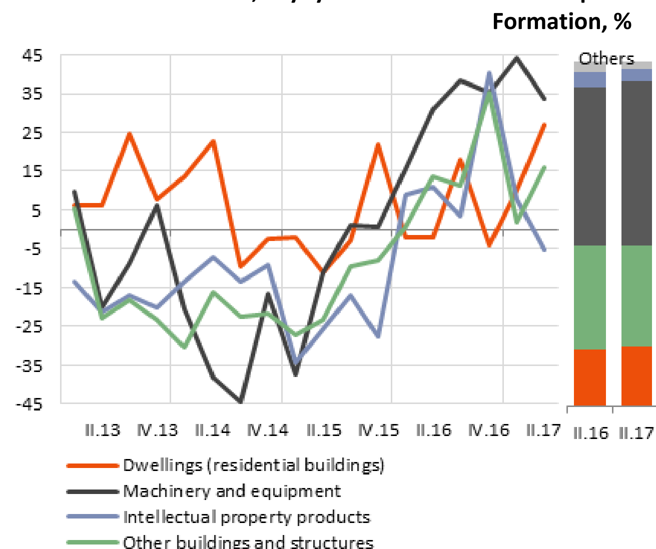
**Investments and Consumptions (seasonal adjusted indices: I.2013=100)**




*Source: SSSU, NBU staff estimates*

**Gross Fixed Capital Formation by Types of Non-financial Assets, % yoy**

**Structure of Fixed Capital Formation, %**




*Source: SSSU. NBU staff estimates*

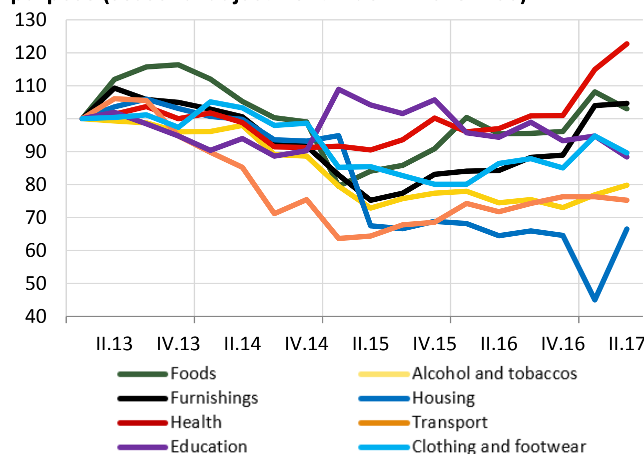
[15] According to a survey conducted by GfK Ukraine.

and services. Expenditures increased on household appliances 24% yoy, on alcohol and tobacco 10.3% yoy, and on food 5.9% yoy. Health care expenditures rose materially, to 27% yoy. Following a dramatic drop in Q1 when warm weather prompted a relatively limited use of heating, household utility expenditures returned to growth (3.7% yoy).

At the same time, general government expenditures (both individual and collective) declined again (7.8% yoy), reflecting Ukraine's tight fiscal policy.

The negative contribution of net exports grew to 3.6 pp in Q2. The weaker external trade performance continued to reflect the suspension of trade with the NGCA and greater gas purchases for storage than a year ago. Import growth accelerated to 4.6% yoy, driven mainly by energy imports, while exports fell further to 2.1% yoy.

**Real Final Consumption Expenditure of Households by purpose (seasonal adjustment index: I.2013=100)**

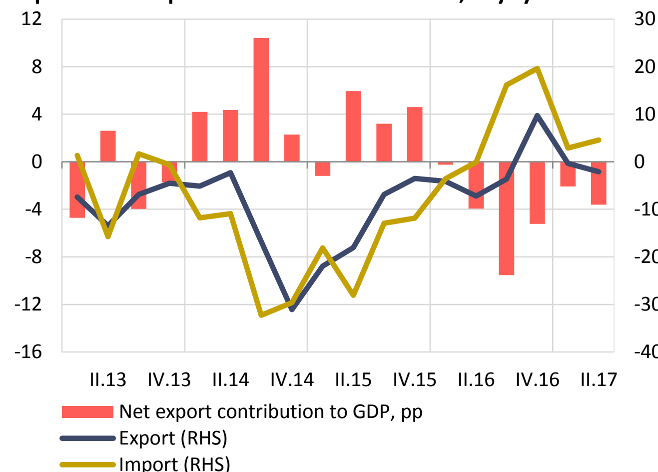



*Source: SSSU, NBU staff estimates*

### Output

In terms of economic activities, the GVA of domestic-oriented sectors increased the most. The growth in construction's GVA sped up to 28.8%, driven by strong investment demand. A pick-up in domestic consumption growth pushed up trade growth (GVA growth accelerated slightly to 3.8% yoy), and service sectors, excluding budget-financed sectors such as public administration and defense, education, health care, arts, sports activities, entertainment, and recreation. The GVA of the financial and insurance sectors increased slightly again, reflecting banks' improved financials.

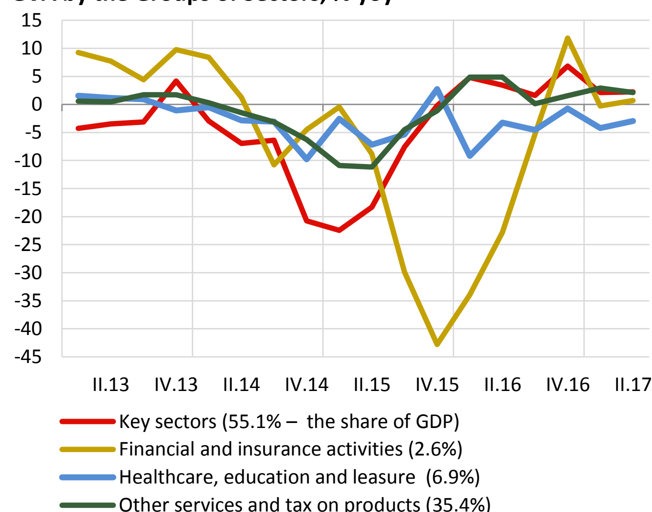
**Exports and Imports of Goods and Services, % yoy**




*Source: SSSU, NBU staff estimates*

The GVA growth of industry remained negative (0.4% yoy) as mining, smelting, and energy output decreased because of the suspension of trade and transport with the NGCA and the seizure of companies in those areas. In the metals industry, output of pig iron, steel, and ferrous alloys fell 17% yoy on average. However, output of many products with a relatively high value added, like pipes, hollow profiles, steel fittings, and finished metal products (excluding machinery and equipment) kept rising, with growth rates ranging from 10% to 29% yoy. Other industrial sectors reported a year-over-year increase in output. More specifically, machinery output grew thanks to an increase in the output of automobiles and railway transport, and other factors.

**GVA by the Groups of Sectors, % yoy**




*Source: SSSU, NBU staff estimates*

The GVA of the agricultural sector dropped further to 2.9% yoy. This was driven by issues in the animal breeding sector, including a drop in pig breeding due to the spread of African swine fever. The State Statistics Service of Ukraine started recording performance indicators for crop cultivation only at the end of Q2, which showed a decrease in output after the harvest campaign started later than last year.

### Estimates for Q3 2017

The NBU estimates that seasonally-adjusted real GDP increased further in Q3 compared to the same quarter a

year ago thanks to an improvement in external conditions, consumer sentiment, and the business outlook. In annual terms, however, GDP growth decelerated gradually to approximately 2% yoy, largely due to a high comparison base.

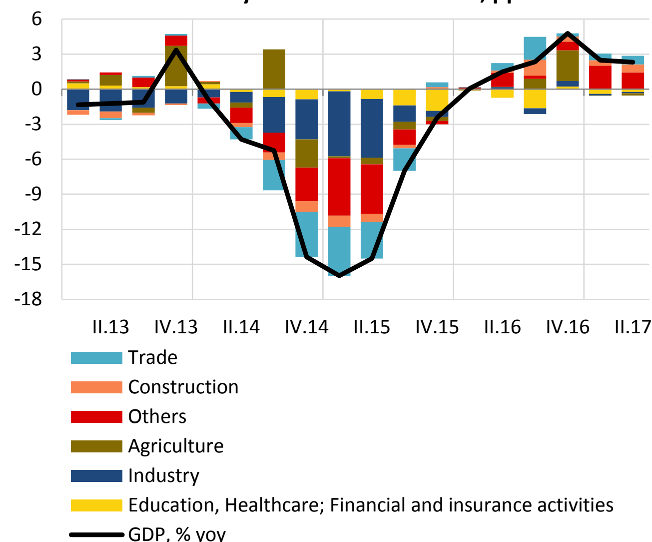
Companies improved their expectations in Q3, particularly investment expectations. Despite the improved investment expectations, investment growth is expected to decelerate due a to high comparison base. That slowdown is already evident in the construction sector where the real growth rate has slowed.

Consumer demand continued to rise in annual terms, driven by the strong growth in retail turnover.

Although some industrial sectors reported a change in output compared to the previous quarter, industrial output was little changed compared to the same period a year ago. Even after the unexpected halt of operations at Dnipro Metallurgical Works from end-March through end-July, the metallurgical sector outperformed the NBU's forecast in Q2 and Q3 that was based on the suspension of trade and transport with areas of eastern Ukraine. Metallurgical companies were able to secure new raw material sources reasonably quickly. In addition, global metal prices rose sharply in Q3, which translated into an increase in the capacity utilization rate of metallurgical companies. That boosted demand for electricity in Q3 and, consequently, the supply of electricity, including from heating power plants. Chemical output rebounded as some companies restarted operations after being idle for a long time[16]. Machinery output also grew, but at a slower pace. The output of automobiles and railway transport grew most, reflecting strong domestic investment demand. The output of the food industry slumped as the output of meat (see Box Supply-Side Pressure on Inflation: Conditions in the Animal Breeding Sector), flour, and sugar decreased.

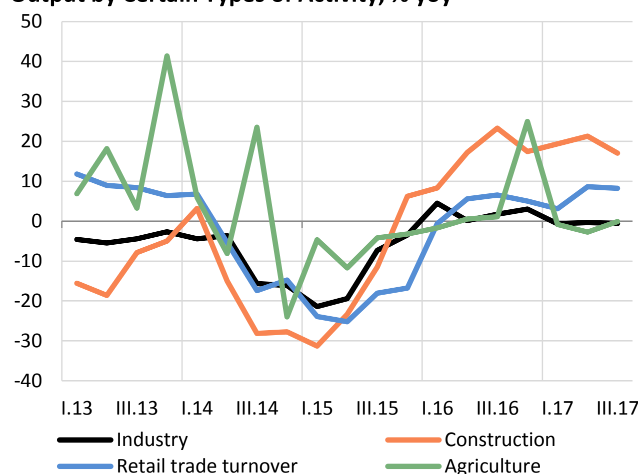
Q3 traditionally sees an increase in the share of crop cultivation, and its performance was affected by a drop in crop yields and the slower harvesting of technical crops compared to a year ago. Despite growth in livestock prices over the last several months, pig breeding continued to decrease (in live weight). In contrast, dairy cattle breeding started to show signs of improvement. The cattle population and milk production both continued to decrease, but at a slightly slower pace. This was attributed to higher demand from processing companies, driven by a rise in exports of dairy products.

**Annual GDP Growth by Secroral Contriutions, pp**



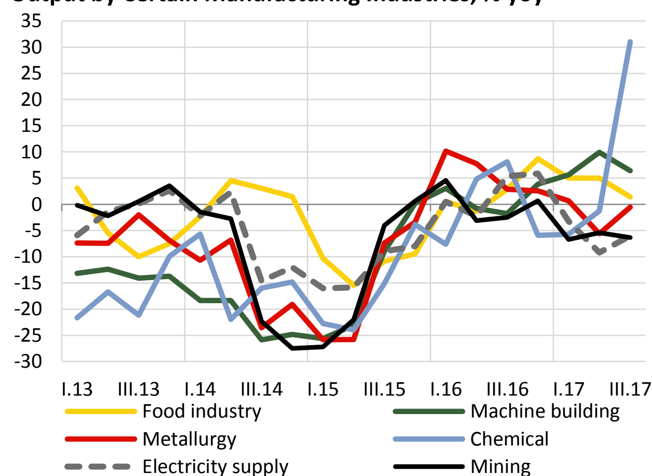

*Source: SSSU, NBU staff estimates*

**Output by Certain Types of Activity, % yoy**




*Source: SSSU, NBU staff estimates*

**Output by Certain Manufacturing Industries, % yoy**




*Source: SSSU, NBU staff estimates*

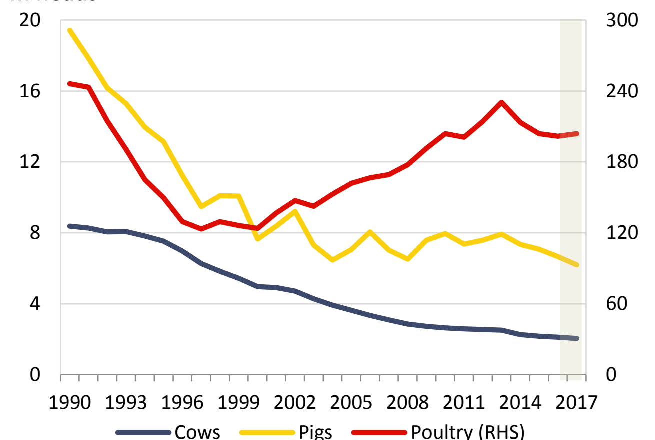
[16] In June, the Karpatnaftokhim plant (earlier Lukor) resumed operation after being idle for five years. The plant produces ethylene, polyethylene, plastic polychlorvinyl (PVC). In addition, in Q3 more fertilizer producing companies were operating, than for the corresponding period last year.

## Box: Supply-Side Pressure on Inflation: Situation in the Animal Breeding Sector

Animal products account for 18% in the consumer price index (CPI) basket. With such a substantial share, any material growth in prices for those goods can cause overall CPI to temporarily deviate from its targeted path. Almost a quarter of the current headline inflation can be attributed to higher prices for meat and dairy products, even when considering that administered prices and tariffs still have a consider contribution to inflation. Milk and dairy products prices are continuing to grow rapidly (28% yoy in September) in contrast to the forecasted deceleration as published in the July 2017 Inflation Report. Price growth for meat and meat products even accelerated – from below 3% yoy a year ago to more than 30% yoy in September.

The inflationary pressure on the meat and dairy market strongly depends on the situation in the animal breeding sector. Most sectors except poultry farming are experiencing a decline in output because of a decline in livestock, which has been partially offset by an improvement in productivity. The animal breeding sector has been affected by low profitability relative to crop farming[17], changes to the taxation framework (in particular, the abolishment of the special VAT regime for agricultural producers), and frequent epizootic outbreaks, especially the rapid spread of African swine fever in Ukraine over the last two years. As a result, animal breeding's share in agricultural production fell to 27% in 2016 from 49% in 1990. However, this has not diminished the role of the animal breeding sector, particularly in the context of food security and pricing on the consumer market. Moreover, the tough situation in the animal breeding sector has fundamentally disrupted the balance of supply and demand on Ukraine's meat and dairy market. The industry has been unable to overcome the shortfall of livestock that has resulted from an increase in exports and a minor recovery of domestic consumption.

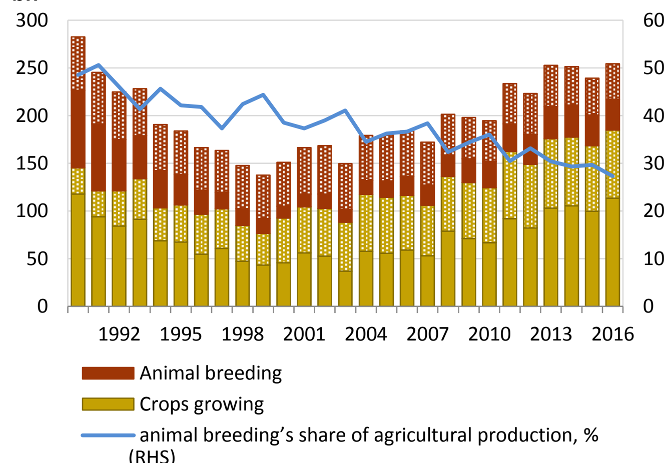
**Number of agricultural animals (at the beginning of the year), m heads**




*- from 2015 excluding the temporarily occupied territories, the AR of Crimea and the city of Sevastopol and part of the anti-terrorist operation zone

*Source: SSSU, NBU staff estimates*

**Gross agricultural production at constant prices in 2010, UAH bn***




**-texture filling reflects the share produced by households*

*Source: SSSU, NBU staff estimates*

Having lost the Russian market, Ukrainian meat and dairy producers pivoted towards other markets, especially other CIS countries, Asia, the Middle East, and the EU. Access to those markets has expanded markedly this year. Exports have grown in large part thanks to higher global food prices. In June–July, butter prices in US dollars grew by more than 100% yoy, whereas prices for the broader group of milk-based products grew approximately 10% yoy. During that period, chicken prices grew by more than 30% yoy, compared with 10% growth for meat product prices overall. The annual growth of global meat and milk product prices slowed in September, although this came mostly against a high comparison base. Prices did not change substantially, although prices for milk products continued to rise.

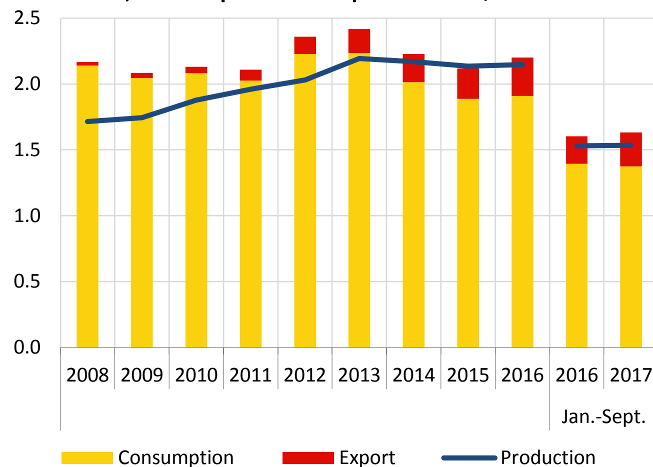
The free trade agreement between Ukraine and the EU was another important factor that encouraged exports. As an example, Ukraine substantially increased exports of chicken meat and butter to the Netherlands. As a result, total chicken meat exports continued to grow (19% yoy in January–September 2017) despite restrictions on Ukrainian poultry supplies to individual countries because of avian flu concerns. Exports of pork and beef grew even faster: 2.6 times and 39% yoy, respectively. Exports of dairy products gained momentum quickly: over January–September 2017, butter exports increased 2.7 times yoy, milk whey exports grew 38% yoy, and cheese exports rose 19% yoy.

[17] According to the SSSU, in 2016, crop farming was profitable (except potato farming), with profit margins ranging from 20% to 63%. At the same time, the production of milk, eggs, and poultry were the only profitable activities in the animal breeding sector; the production of other types of meat was loss-making.

While exports grew, Ukraine's domestic production capacities did not follow suit. Although productivity in dairy cattle breeding has been growing steadily since the mid-1990's (the milk yield per cow has more than doubled), that increase failed to offset the effect of a rapid decline in livestock. As a result, growth in dairy exports was accompanied by a decrease in domestic milk production. In turn, fewer cattle were slaughtered due to higher procurement prices for milk, which contributed to a shortage of beef and veal.

Therefore, two supply factors simultaneously impacted domestic prices for meat and dairy products: exporters raised prices based off higher external prices and farmers increased procurement prices amid a shortage of animals to slaughter and raw milk. Against this backdrop, prices in September for pork, chicken, and beef were up 42% yoy, 33% yoy, and 28% yoy, respectively, while growth in prices for milk, cultured milk products, and cheese accelerated to 28% yoy, 24% yoy, and 23% yoy, respectively.

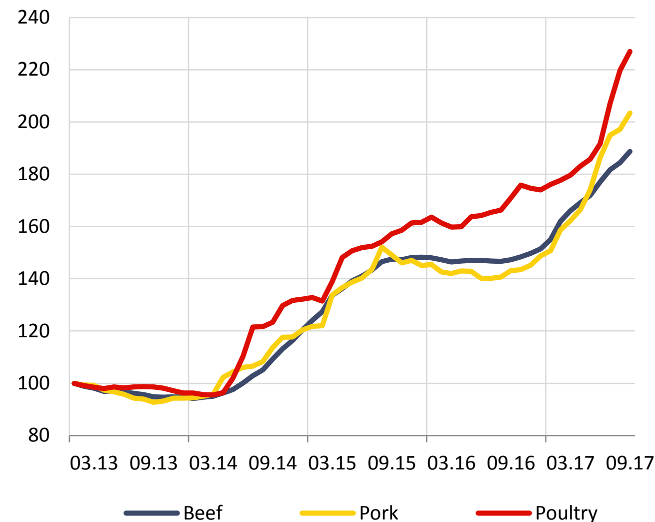
**Production, consumption and export of meat, m tons**




*- from 2015 excluding the temporarily occupied territories, the AR of Crimea and the city of Sevastopol and part of the anti-terrorist operation zone

*Source: Facilitating Effective Policy Dialoguein Ukraine's Meat Sector Project (meatbalance.org.ua), NBU staff estimates*

**Seasonally adjusted indices of meat prices, 01.2013=100**

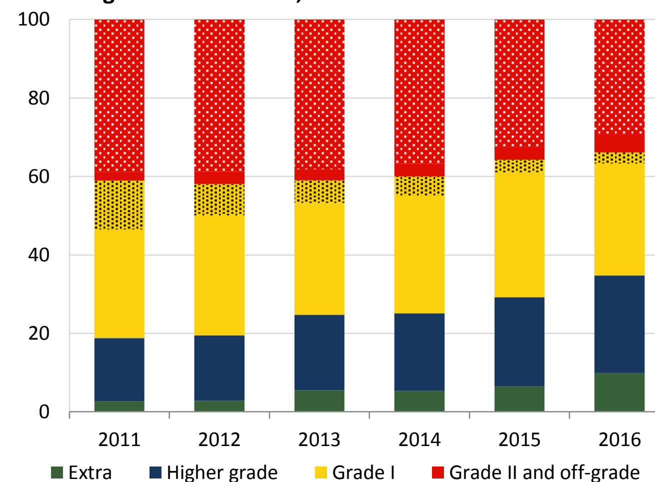



*Source: SSSU, NBU staff estimates*

In contrast to the meat and milk market, the egg market was marked by excess supply in H1 2017. Egg production started to grow this year, although export restrictions remained in place for individual producers. That caused egg prices to drop almost 10% yoy as of July 2017. A relaxation of trade restrictions on Ukrainian poultry allowed egg prices to rebound in August–September 2017, rising 37% yoy in September.

The NBU expects the supply and demand of raw food products to balance out over the forecast horizon. The sharp increase in procurement prices for meat and milk lay the foundations for the animal breeding sector to develop and increase production. Nevertheless, in September, pig farming output continued to decline and livestock exports grew rapidly. Since an increase in production takes time, prices for meat and meat products may continue to rise on the back of high exports and a pickup in domestic consumption. Milk and dairy prices will continue to grow, especially in early 2018 when changes to the state standards of Ukraine (DSTU) are introduced. Grade II milk or off-grade milk will be excluded from the classification and will therefore not be supplied to processing companies. Milk of that quality accounts for approximately 30% of raw milk purchased by processing companies, mostly from households. As a result, the shortage of raw milk on the domestic market may increase.

**Raw milk purchased by processing companies by quality according to DSTU 3662-97, %**




**-texture filling reflects the share of milk purchased from the population*
*Source: SSSU, NBU staff estimates*

## 2.2.3. THE LABOR MARKET AND HOUSEHOLD INCOME

Demand for labor has been recovering since the beginning of 2017, boosted by improved business expectations, including for employment. However, the growth in demand in Q3 was largely of a seasonal character as vacancies increased in construction, transport and logistics companies.

The supply of labor also grew as a portion of the economically inactive population started searching for jobs again, encouraged by this year's wage hike and other factors. However, the mismatch between labor demand and supply persisted. As a result, the unemployment rate based on ILO methodology was practically flat in seasonally adjusted terms. It increased slightly from H1 2016.

Nominal household incomes have been rising since the start of this year, driven by strong growth in wages. Meanwhile, growth in other types of nominal incomes has been weak. This, together with high inflation, slowed real disposable household income growth to 1.7% yoy. Households continued to rely on savings to maintain consumption levels, including through the sale of foreign currency, with the resultant decline in savings.

**The Labor Market**

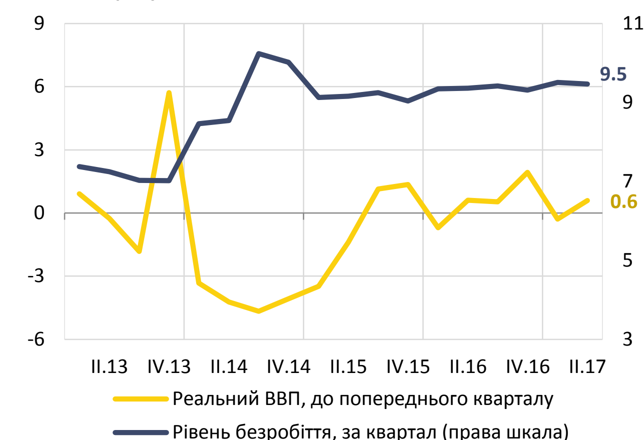
According to Internet data, the growth in labor demand accelerated in Q3 2017 compared with the previous quarter. The increase was mainly seasonal, resulting from a seasonal pick-up in activity in construction, transport, logistics sphere, and among workings specialties. At the same time, the growth in labor demand slowed slightly according to Ukraine's State Employment Office data. This may have been caused by weaker growth in the number of employers that worked with state employment offices (154,000 as of the end of September 2017, about half of all Ukrainian companies).

Business outlook surveys are also pointing to increased demand for labor. In Q3, companies improved their employment expectations for the next 12 months, especially companies in manufacturing, trade and transport, which was reflected in an increase in the number of vacancies offered by these types of activities.

Data by job search sites show that the number of vacancies has risen in practically all sectors since the beginning of 2017 (except from the real estate and insurance sectors, which account for only 1% of all vacancies). The largest increases were reported by construction, logistics, transport, service sector, and trade due to increased business activity (as of early October, almost 70% of all vacancies were in these types of activities).

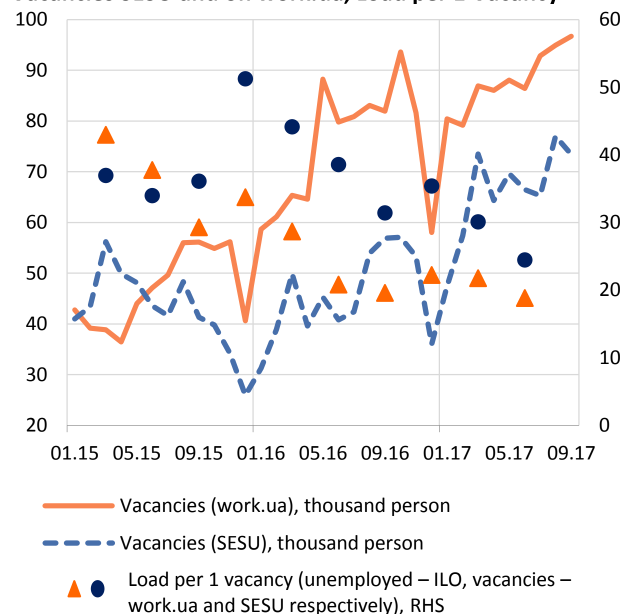
At the same time, the mismatch between labor supply and demand persisted because of high qualification requirements from employers and low wages, which

**ILO Unemployment* and Real GDP, sa, %**



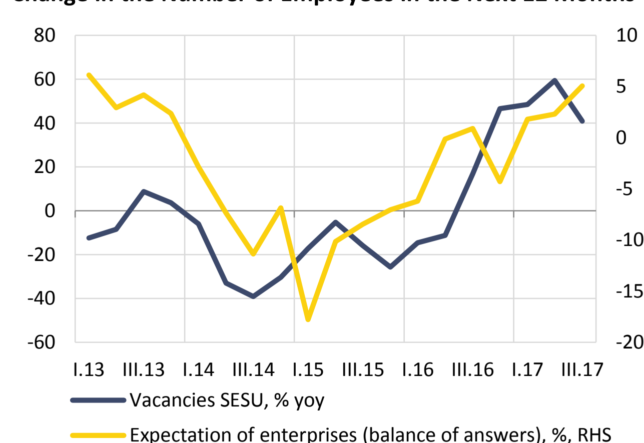

** % of economically active population aged 15 – 70 years*
*Source: SSSU, NBU staff estimates*

**Vacancies SESU and on work.ua, Load per 1 Vacancy**




*Source: SSSU, www.work.ua, NBU estimates*

**Vacancies SESU and Expectation of Enterprises for the Change in the Number of Employees in the Next 12 Months**




*Source: SSSU, Bussiness outlook survey of Ukraine (NBU)*

discouraged individuals from looking for jobs. These mismatches are evident from the disparity between the number of submitted CVs and the jobs offered in various sectors. According to data from job search sites at the beginning of October 2017, the legal sector reported the largest number of applicants per vacancy (74 individuals), followed by secretaries and paperwork (40), teachers and academics (31), and the financial and banking sector (32).

Some positive developments on the labor market slowed the rate of decline in the number of full-time employees. In August 2017, 7.7 million individuals were employed on a full-time basis, about half of all employed individuals. This indicates that companies have adapted to structural changes, including the wage hike at the start of the year, the suspension of trade with the NGCA, and the seizure of companies in those areas.

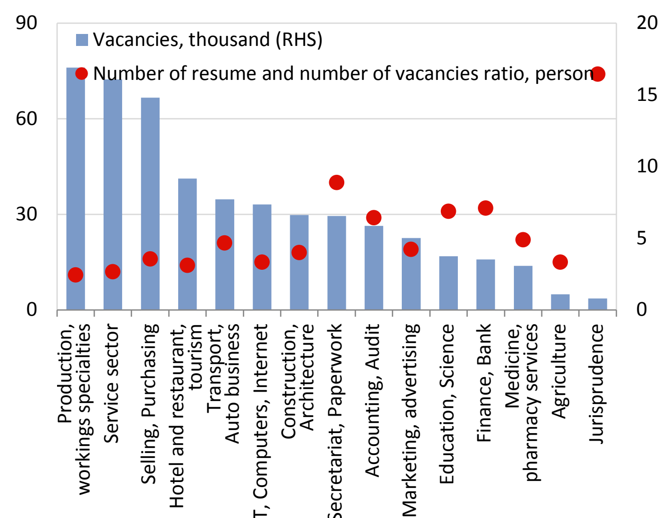
The decline in the number of economically active population slowed in Q2 2017 to 0.3% yoy, 18 million individuals. That came mainly on a drop in the share of the economically inactive population[18] – as the NBU expected, an increase in wages, especially the minimum wage hike, encouraged some economically inactive individuals to start searching for jobs again. This increased the economic activity rate to 62.5%, constituting growth relative to Q1 2017 as well, despite the presence of unfavorable demographic and migration trends.

The increased supply and demand of labor slowed the decrease in the economically active population by 0.4% yoy to 16.3 million individuals. However, employment trends varied by gender. The decrease in male employment accelerated to 1.6% yoy, possibly because of a rise in the number of labor migrants. By contrast, female employment grew 0.8% yoy.

The seasonal increase in labor demand in Q2 (largely from construction, transport and agricultural companies) brought down the unemployment rate according to ILO methodology to 9.1% (in percent of the economically active population aged 15 to 70). The seasonally adjusted unemployment rate remained high, hovering between 9.3% and 9.5% since the beginning of 2016. The unemployment rate increased on average by 0.2 pp to 9.6% in H1 2017 compared to the same period a year ago. The number of unemployed individuals aged 30-49 grew 17% yoy, possibly the result of entrepreneurs closing businesses[19].

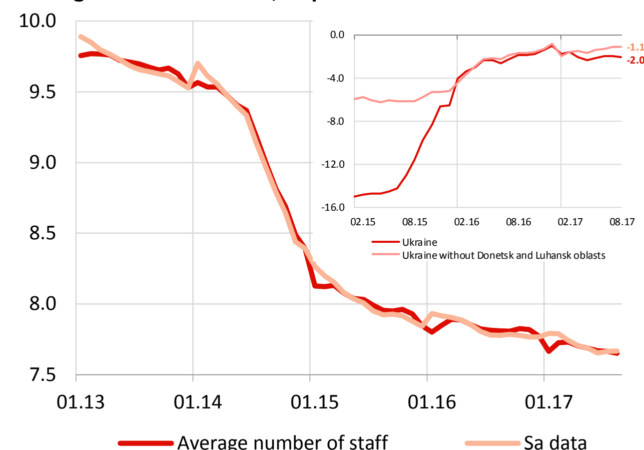
With demand for labor edging up, higher unemployment also points to a significant mismatch on the labor market in terms of regions, economic activities, and professions. In H1 2017, youth aged 15-24 showed the highest unemployment rate at 17.8%, due to difficulties in finding a job after

**Vacancies on www.work.ua, Number of Resume and Number of Vacancies Ratio for Activities (September 2017)**



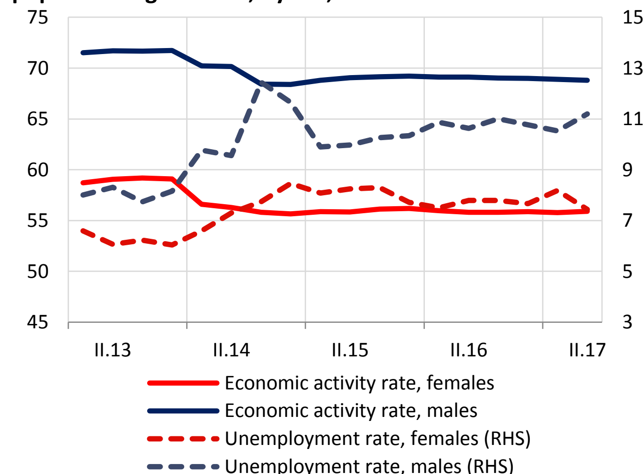

*Source: www.work.ua, NBU estimates*

**Average Number of Staff, m person**




*Source: SSSU, NBU staff estimates*

**Economic Activity Rate, % of the population aged 15-70, and ILO Unemployment Rate, % of the economically active population aged 15-70, by sex, sa**




*Source: SSSU, NBU staff estimates*

[18] This category includes individuals who do not want to work because they have no need to work (such as retirees, students, housekeepers), individuals who have lost hope of finding a job, and those who feel there is no suitable work and do not know where and how to find it. Read more about the structure of the population in the Box *Unemployment Level by ILO Methodology* in the September 2015 Inflation Report, pages 24-25.

[19] On December 27, 2016, amendments to the legislation on the work of individual entrepreneurs (increase in tax burden) were introduced: from January 01, 2017, individual entrepreneurs must pay payroll tax amount of 704 UAH per month, even if their business is unprofitable. According to OpenDataBot.com, from the end of 2016 almost 400 thousand private entrepreneurs have cancelled their registration (as of September 25, 2017). At the same time, 200 thousand private entrepreneurs started new business.

completing their education. By regions, Luhansk and Donetsk oblasts reported the highest unemployment rates, 16.6% and 14.5%, respectively. At the same time, SESU reported that as of the end of August 2017, about 40% of all vacancies were in the city of Kyiv and in Lviv, Dnipropetrovsk, and Kyiv oblasts.

### Household Income and Savings

The growth in nominal household income slowed to 17.6% yoy in Q2 2017. The growth of social transfers in kind slowed to less than half its pace from the previous quarter, to 20.1% yoy, which drove the overall slowdown in income growth. That was caused by technical difficulties with the calculation of subsidies in May and June after the program for utility subsidies to households was amended. Nevertheless, social benefits and other current transfers received as a share of total household income grew to 15.1% as more households received utility subsidies and as subsidy amounts increased year-on-year.

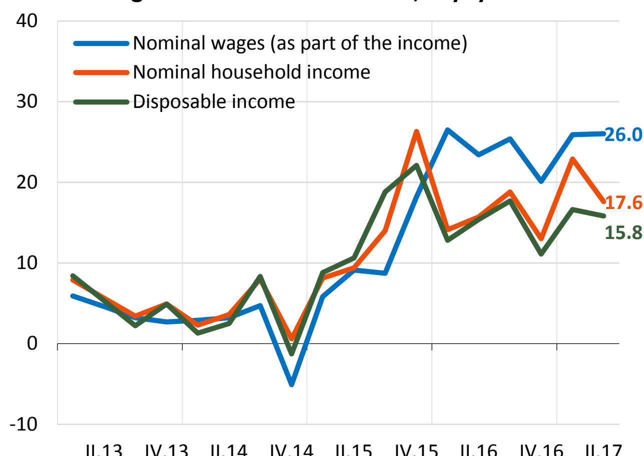
Growth in nominal income from other sources also remained subdued: income from entrepreneurship and self-employment – profit and mixed income – was up 8.3% yoy, while property income dropped further (14.2% yoy).

Wages rose 26% yoy in Q2[20], making the largest contribution to the growth in nominal household income. Wages as a share of household income have increased for two straight quarters, to 47.1%, driven by the minimum wage hike to UAH 3,200 as of 1 January 2017 and other factors.

The weaker growth in nominal household income, together with high inflation, slowed the growth in real disposable household income to 1.7% yoy.

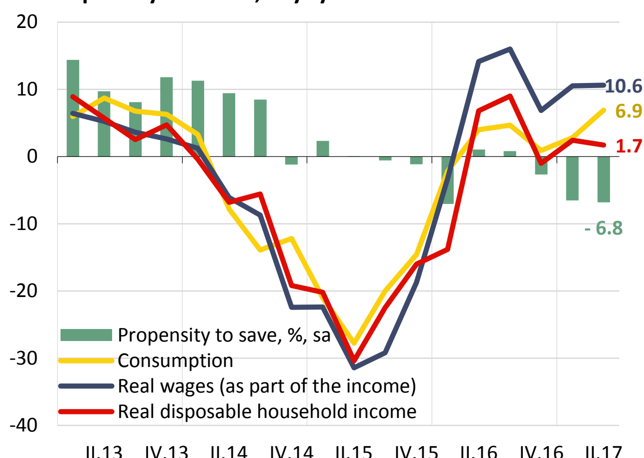
Despite the slow growth in real disposable household income, private household consumption continued to pick up. That was driven by both higher wages and household subsidies and expenditure by households financed by the use of savings to maintain consumption levels. Indeed, household savings fell by UAH 27.6 billion in Q2 2017, mainly as households spent their foreign currency savings. At the same time, household deposits increased, matching the general upward trend in retail deposits. Nevertheless, the household propensity to save remained negative, posing a risk of a further increase in consumer demand pressure on inflation.

**Nominal Wages and Household Income, % yoy**




*Source: SSSU*

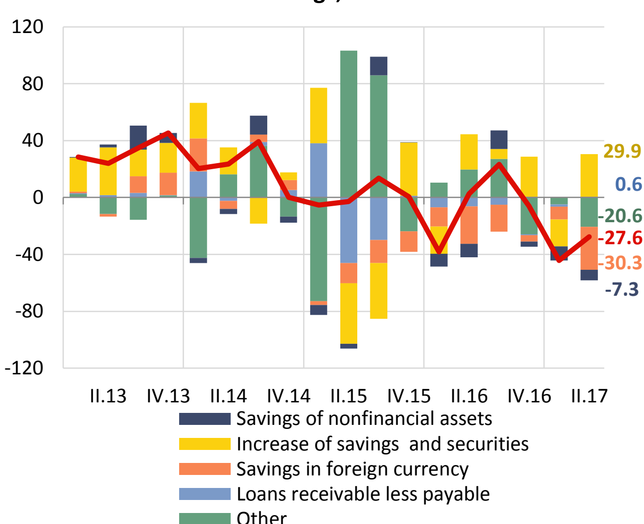
**Real Disposable Income, Real Wages, Private Consumption and Propensity to Save*, % yoy**




**Savings to disposable household income ratio*

*Source: SSSU, NBU staff estimates*

**Increase of Households' Savings, UAH bn**




*Source: SSSU*

[20] The growth rates of wages within the structure of income and the average nominal wage (per one employee) differ due to the different calculation methodologies used. Wages as part of household income are calculated based on a larger sample, which includes, among other things, armed forces pay and allowances, temporary disability payments, and self-employment income, as well as other payments that are not included in the calculation of the average nominal wage per employee.

## Box: The Key Elements of Pension Reform

On 11 October 2017, parliament adopted Law No. 2148-VIII *On Amending Certain Ukrainian Laws to Raise Pensions*. The pension reform was necessitated to address the problems of Ukraine's pension system and its heavy burden on public finances. Given high pension expenses (about 10% of GDP in 2016), most individual pensions remained small[21], the burden to the economy increased and the system dependence ratio worsened significantly (one contributor, measured as an individual employed in the formal economy, currently supports nearly one pensioner[22]). There was also a significant mismatch between special program pensions and retirement pensions and the Pension Fund continually required budgetary support[23].

The pension reform has amended the functioning of the first tier (pay-as-you-go) of the pension system.

Retirement pension requirements will be altered from 2018 to address problems related to the Pension Fund's revenues and expenses over the long-term. The reform initiatives are:

- Raised the minimum pension insurance record required to receive a retirement pension from 15 to 25 years, effective 1 January 2018; the minimum required record will be increased by one year annually until it reaches 35 years on 1 January 2028
- Retained an individual's right to retire at 60[24], provided they have met the required pension insurance record. Individuals without the required insurance record can retire at 63 or 65 years, depending on the length of their pension insurance record. Those with an insurance record of 40 years or more could receive retirement pensions from 1 January 2028 regardless of their age;
- Decreased the rate used to calculate one year of insurance record from 1.35% to 1%[25];
- Introduced an annual indexation for pensions[26];
- Altered the cap used as the basis for calculating the unified social contribution from 25 times the subsistence minimum for able-bodied individuals to 15 times the minimum wage[27];
- Eliminated special program pensions for specific groups (members of parliament, local government officials, diplomats, media professionals, teachers, and academics) and the right to receive pensions for years of service (for teachers and health care providers, social workers, and athletes).

The reform's key changes aim to eliminate the gap between retirement pension benefits that have been established in different years (pension modernization). Starting 1 October 2017:

- Retirement pension benefits set earlier will be recalculated based on the average wage (income) on which insurance contributions were paid (calculated as the mean value for 2014, 2015 and 2016, or UAH 3,764.4) and a 1% coefficient for one year of pension insurance record (from previous 1.35%)
- Raised payments related to an increase in the subsistence level for disabled individuals (the increase took place two months earlier than expected. Furthermore, the subsistence level coming into effect on 1 December 2017 was additionally increased by UAH 79)
- Cancelled pension taxes for working pensioners and addressed the issue of paying pensions to certain categories of pensioners (such as those who receive pensions under the Laws of Ukraine *On the Civil Service* and *On the Public Prosecution*).

According to the government estimates, these measures led to a rise in average pension benefits by about one third, thus increasing the Pension Fund's short-term expenses (the estimated effect of their increase on economic growth and inflation is provided in Box "Fiscal Multiplier as an Indicator of the Impact of Fiscal Policy on Ukraine's GDP" on page 32). Financing the modernized approach to pensions appears feasible in 2017, given the increase in unified social contribution revenues that have been driven by the growth in the average nominal wage.

The pension system has also been freed from payments not directly related to insurance pensions, such as additional payments to reach the subsistence level, pensions for hazardous and hard labor conditions, and compensations to employers for job creation. Effective from 1 January 2018, individuals 65 years old and older that have the required pension insurance record (35

[21] As of January 1, 2017, out of 10.9 million retirees, entitled to retirement pensions according to the Law of Ukraine "On mandatory state pension insurance", 73% received an addition to the minimal pension, according to the Pension Fund of Ukraine (p.29).
[22] As of 01.01.2017, only 78% of employees paid the SSC rate, i.e., 12.8 million persons of total employed population, according to the Pension Fund of Ukraine and the SSCU.
[23] UAH 141.3 billion, or approximately 6% of GDP, are envisaged to be allocated from the 2017 State Budget to the Pension Fund of Ukraine.
[24] The statutory retirement age will be raised gradually for women.
[25] The estimate of one year of pension insurance record is the statutory indicator applied for calculating the pension insurance coefficient of the eligible person used to calculate the retirement pension amount for such a person.
[26] Adjusted for at least 50% of the change in last year's CPI and 50% of growth in the average wage for the last three years, compared to three calendar years prior to the year, preceding the year of the increase. The amount may be raised unless the Pension Fund runs a deficit. Effective as of 2021. In 2019-2020 the indexation will take into account the changes in the average wage and inflation in the last year.
[27] As of the beginning of 2017, this amount equaled UAH 40000 (25x 1600). According to the Law of Ukraine "On the 2018 State Budget" №7000 dating from 15.09.2017, starting from January 1, 2018, the minimum wage was established ta UAH 3723, resulting in a UAH 55845 increase in the SSC base (15x3723).

years for men and 30 years for women) will be entitled to a minimum old age pension of 40% of the minimum wage, as defined in the State Budget Law for a given year, which cannot be less than the subsistence level for disabled individuals. For those without the required pension insurance record, minimum old age pensions will be calculated in proportion to their insurance record, based on the minimum cost of living for disabled individuals. Effective from 1 January 2018, only individuals aged 65 years and older will be entitled to the minimum pension, while younger individuals will be eligible for social assistance paid to low-income individuals. Within 2018 and 2020 individuals aged 60 years and older and who do not have the required minimum insurance record could receive temporary social assistance from the government, provided they have at least 15 years of insurance record. This assistance will be paid until those individuals reach the eligible retirement age, and will be calculated off an individual's financial standing and average monthly income.

The changes to Ukraine's pension system help to narrow the gap between pensions that were set in different years and under different pension schemes, and will encourage people to seek employment in the formal economy and to contribute to the pension system. That will improve the financial health of the Pension Fund, even though there are still risks that demographic and migration trends will have an adverse impact on the pension system. Despite the changes, the pension reform has not addressed all the problems facing the pension system. For that reason, next steps to reform the pension system are to introduce a mandatory fully-funded tier (from 1 January 2019), occupational pension schemes, and create a registry for recipients of social payments, benefits, subsidies, pensions, and other payments financed by budgetary and non-budgetary funds.

## 2.2.4. FISCAL SECTOR

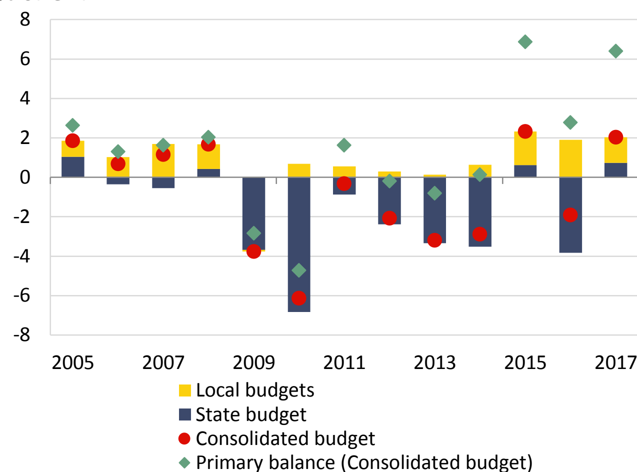
Ukraine has pursued a prudent approach to fiscal policy in January–September 2017. Over the first nine months of the year, the consolidated budget registered large overall and primary surpluses. The state budget contributed a sizable share of the surplus.

Total consolidated budget revenues grew rapidly. Economic factors, including an improvement in corporate and household earnings and a pickup in domestic demand, boosted tax revenues. However, a large share of revenues came from non-tax sources (dividends from NJSC Naftogaz of Ukraine and a portion of the NBU profit for 2016) and other non-recurring proceeds (confiscated funds[28]).

Budget expenditures grew only moderately, at a much slower pace than revenues. After a sharp increase at the start of the year, expenditures decelerated materially, primarily at the expense of social spending. Notable in this respect was the decreased support to the Pension Fund owing to rapid growth in proceeds from the SSC.

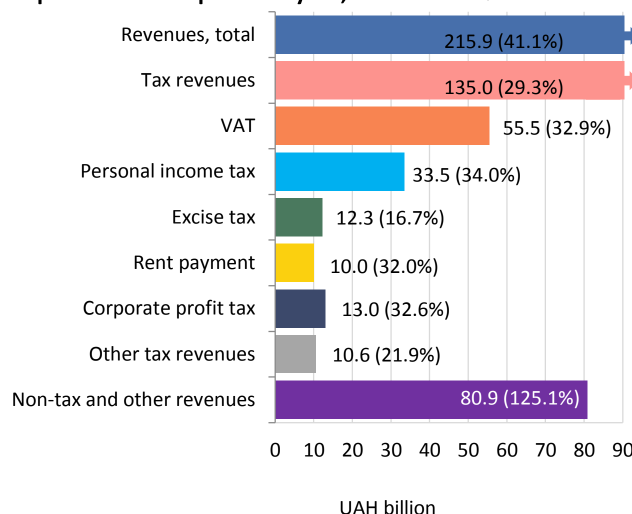
Public and publicly guaranteed debt has remained virtually unchanged through most of the year, despite the issuance of domestic government bonds for quasi-fiscal financing needs and the receipt of funds from international partners. This was prompted by the hryvnia's appreciation against the US dollar and lower amounts of government securities placed domestically, both in hryvnia and in foreign currencies. In September, however, Ukraine returned to global debt markets by offering 15-year Eurobonds. That increased public and publicly guaranteed debt by 5.9% ytd to UAH 2,043 billion as of the end of September.

**Consolidated Budget Balance in January-September, % of GDP***




**Q3 GDP – NBU staff estimates*
*Source: STSU; NBU staff estimates.*

**Consolidated Budget Revenues in January-September 2017, compared with the previous year, UAH bn and %**

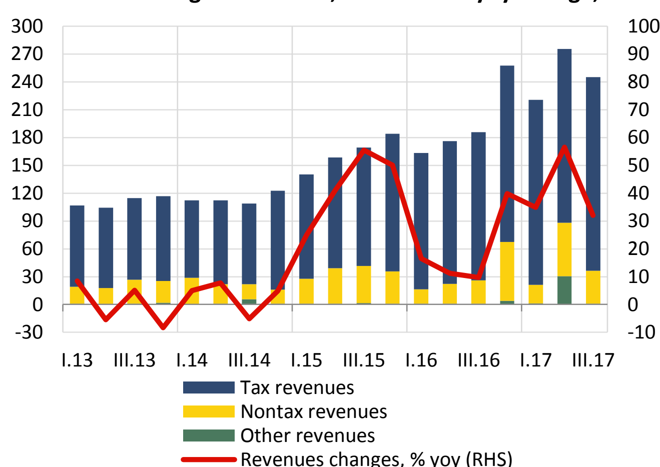



*Source: STSU; NBU staff estimates.*

### Revenues

Consolidated budget revenues grew 41.1% yoy over the first nine months of 2017. Tax revenues accounted for the major portion of the increase. Non-tax revenues and other proceeds also contributed significantly. That included the transfer of dividends for 2016 from state-owned companies[29] (especially from NJSC Naftogaz of Ukraine) and a portion of the NBU's profit[30], which did not take place last year, leading to an increase in non-tax revenues in Q2 and Q3 and, consequently, since the start of the year. Other revenues increased thanks to the court-ordered confiscation of funds, which made a sizeable contribution to the annual growth of the consolidated budget revenues over the first nine months of the year.

**Consolidated Budget Revenues, UAH bn and yoy change, %**




*Source: STSU; NBU staff estimates.*

Tax revenues have grown in Q2, Q3, and since the start of the year, primarily, on the back of economic factors. Revenues from personal income tax continued growing

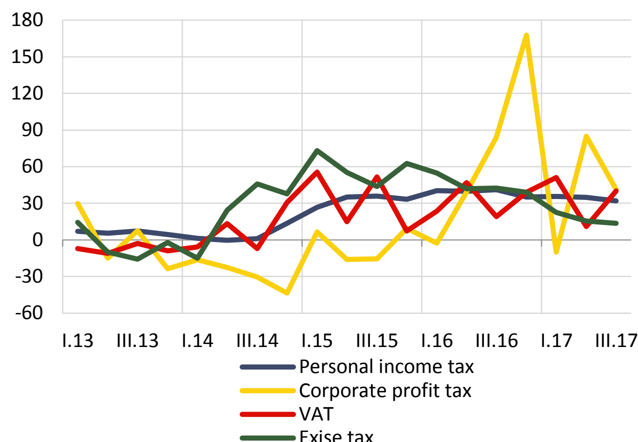
[28] Confiscated funds refer to cash and securities held by members of former President Viktor Yanukovych's team on accounts at Oschadbank and Ukrgasbank, which were transferred to a special budget fund by court order. Bonds included in this transfer were redeemed.
[29] NJSC Naftogaz of Ukraine transferred UAH 13.3 billion in dividends for 2016 to the state budget.
[30] UAH 30 billion since the start of the year, including UAH 10 billion in Q3.

steadily since the start of 2017, reflecting growth in nominal wages. Corporate income tax revenues grew rapidly year-on-year in June–September, contributing to the year-on-year growth in revenues for January - September. An improvement in corporate financial performance was the main driver of the growth in revenues – in H1 2017, the profits of profitable companies rose 44.2% yoy. Advance corporate income tax payments during NJSC Naftogaz of Ukraine's transfer of dividends for 2016 also contributed to the increase in revenues.

After slowing materially in Q2, VAT revenues returned to faster growth in Q3, rising to 40.1% yoy from 11.0% in Q2. That was mostly driven by a pickup in domestic demand, which boosted retail trade, as well as by large imports of natural gas this year, accounting for the implementation of a single tax rate for natural gas for all market participants during customs clearance. VAT revenues were also impacted by substantial VAT refunds. After the VAT refund electronic register was launched in April 2017, the volatility of refunds decreased and total VAT refunds have grown to UAH 87.6 billion since the start of the year (37.4% yoy). At the same time, in Q3, annual growth in VAT refunds slowed materially (to 10.8% yoy) due to last year's high comparison base[31]. The increase in refund payments has led to a decline in arrears, down to UAH 11.7 billion as of 1 September 2017. Rent proceeds continued to grow, including because of a slight increase in local gas production.

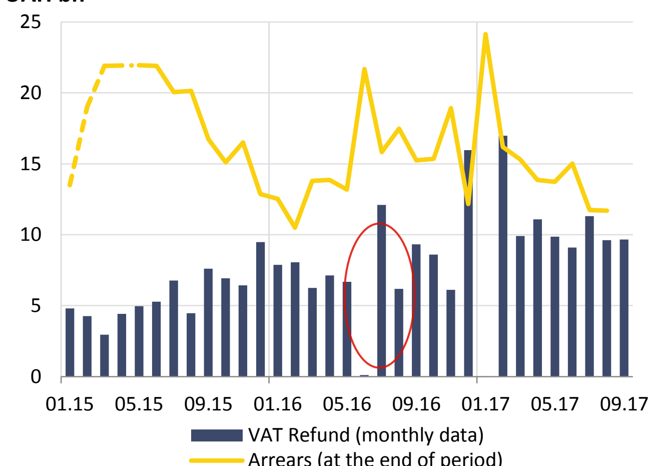
Excise tax revenues continued to grow, but the pace of growth was moderate and slowing gradually. That reflected distribution issues for tobacco products in Q2, a slower growth of imports in recent months, and the relative stability on the FX market this year. Those same factors affected growth in revenues from taxes on international trade, which decelerated as well.

**The Main Budget Taxes, % yoy**




Source: *STSU; NBU staff estimates.*

**VAT Refund Payments and the Stock of VAT Refund Arrears, UAH bn**



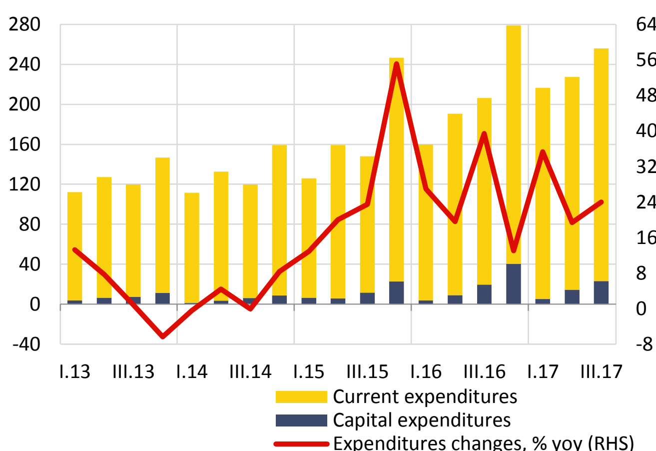

*Source: STSU; SFS; NBU staff estimates.*

### Expenditures

After slowing in Q2, growth in expenditures picked up in Q3, primarily on goods and services, current transfers, and debt servicing. Over the first nine months of 2017, total expenditures grew 25.7% yoy, slower than revenues.

After social security expenditures dropped 11.4% yoy in Q2, they recovered to moderate growth in Q3 (5.2% yoy). This was mostly driven by more than doubling of expenditures for utility benefits and subsidies to households, including due to the end of the subsidy review period. At the same time, budget transfers to the Pension Fund decreased year-on-year as the Pension Fund brought in more of its own funds thanks to growth in proceeds from the SSC (41.9%[32] yoy over January–September 2017). In addition, growth in salaries decelerated starting in Q2 against a higher base last year, although these expenditures

**Consolidated Budget Expenditures, economic classification, UAH bn and % yoy**




*Source: STSU; NBU staff estimates.*

[31] VAT refunds were extremely low in June 2016, then grew to UAH 12.1 billion in July and to UAH 9.3 billion in September.

[32] The portion of SSC proceeds that are transferred to the Pension Fund (http://www.pfu.gov.ua/pfu/control/uk/publish/article?art_id=296015&cat_id=94750).

remained the largest among expenditures by economic classification.

Other current expenditures continued growing rapidly and, unlike last year, contributed significantly to the total expenditure growth. In Q3, spending on the consumption of goods and services continued to grow rapidly (up 65.8% yoy), primarily on government (regional) programs[33]. Expenditures on subsidies and current transfers to businesses also continued soaring, especially because of allowances for agricultural producers. On the other hand, growth in debt servicing expenditures remained moderate.

Capital expenditures grew rapidly through the nine months of the year, despite a high comparison base, although their growth slowed in Q3. Capital expenditures were boosted by funds received from the "customs experiment", aimed at financing road infrastructure using excess customs proceeds[34], although the impact of this program faded slightly in Q3. Traditionally, local budgets are the main source of capex financing, particularly for road improvements.

By functional classification, spending on education and healthcare continued to grow rapidly, primarily reflecting rising wages, especially following the minimum wage increase. Local budgets saw education and healthcare expenditures grow substantially as local authorities were delegated the responsibility for maintaining education and healthcare institutions. Expenditures on economic activity, public utilities, sports, and culture continued to increase rapidly.

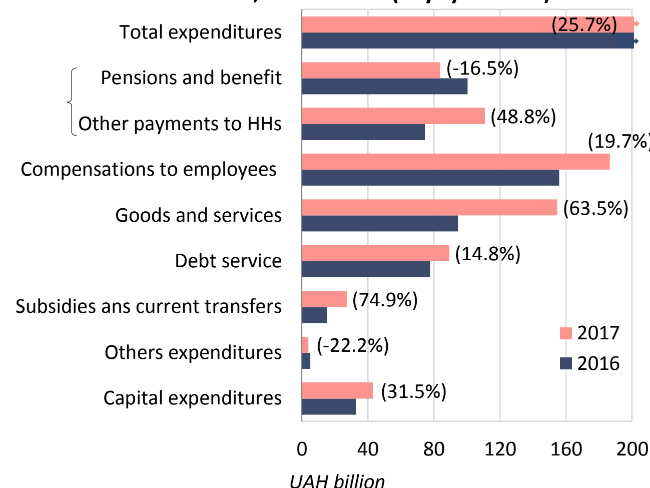
### Balance

In Q3, the state budget registered a deficit, despite high revenues and relatively moderate expenditures. Local budgets generated a surplus, although it was not enough to offset the state budget deficit, which entailed a deficit of the consolidated budget. The large surplus of H1 2017 made it possible to generate a substantial surplus of UAH 41.7 billion in the nine months of 2017.

The consolidated budget also recorded a sizeable primary surplus of UAH 131 billion through the nine months of 2017 as the cost of domestic financing attracted by Ukraine's Ministry of Finance gradually decreased and net amounts of borrowings were lower. As a result, growth in debt service expenditures slowed materially.

Running a moderate budget deficit, the government continued to issue domestic government bonds in Q3 to redeem earlier issued securities and finance the quasi-fiscal needs of the support of state-owned banks

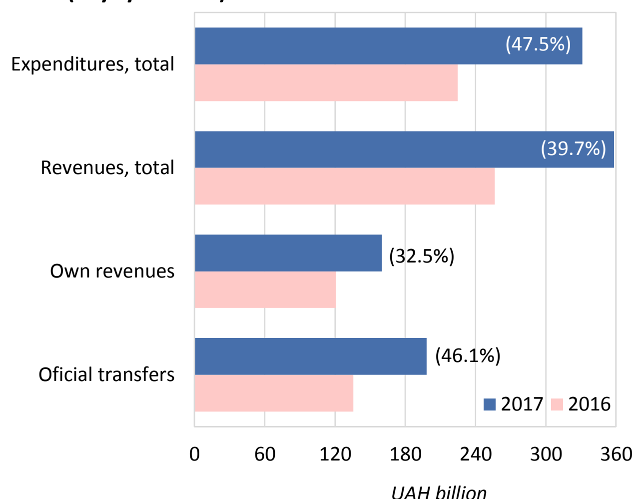
**Consolidated Budget Expenditures in January-September, economic classification, UAH billion (% yoy in 2017)**




** Other payments to the population include benefits and subsidies to households for utility payments, scholarships, etc.*
*** Wages, salaries to military officers, and payroll charges.*

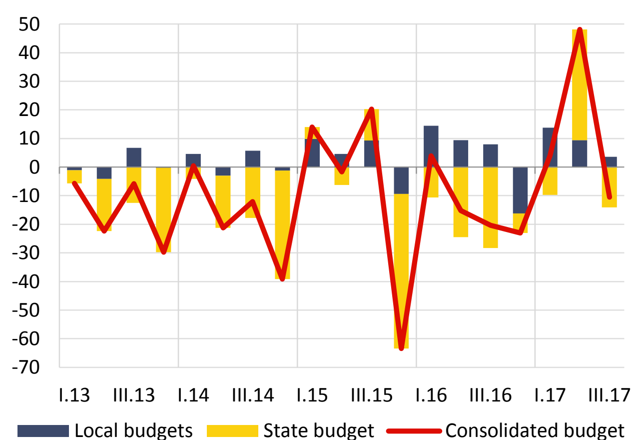
*Source: STSU; NBU staff estimates.*

**Selected Local Budget Indicators in January-September, UAH billion (% yoy in 2017)**




*Source: STSU; NBU staff estimates.*

**Consolidated Budget Bbalance, UAH bn**




*Source: STSU; NBU staff estimates.*

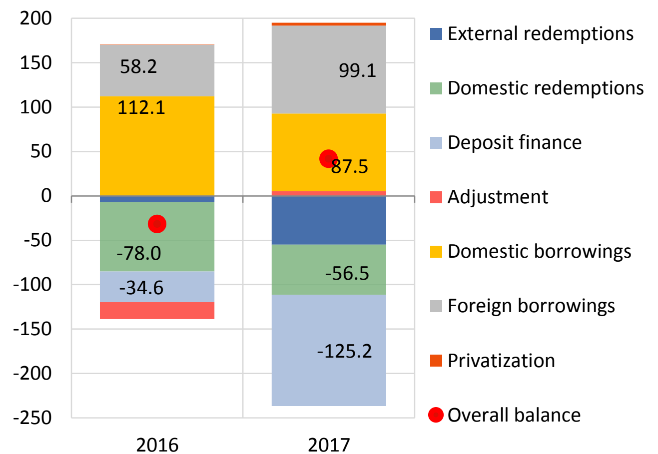
[33] More details about the government's regional programs in order No. 333 by the Ministry of Finance of Ukraine *On Approving Instructions for Applying the Economic Classification of Budget Expenditures and Instructions for Applying the Classification of Budget Debt* dated 12 March 2012.
[34] The experiment of financing road development using customs proceeds is regulated by clause 33, section VI *Final and Transitional Provisions* of the Budget Code of Ukraine. Under the plan, 50% of the above-target amount of total monthly indicative proceeds from customs duties, excise taxes, and VAT on imported goods will be allocated to special funds within local budgets to finance road construction and repair. The "customs experiment" was launched in September 2015 in four oblasts. Kyiv was added in 2016 and all Ukrainian oblasts were included as of 2017. The project will run until 1 January 2018.

(UAH 22.5 billion in Q3 and UAH 48.9 billion total since the start of the year). Ukraine also attracted financing from international donors. In addition, after a long break from international capital markets, the government issued Eurobonds worth USD 3 billion in September 2017. Of those proceeds, USD 1.32 billion was used to finance the general fund of the state budget, and the remaining USD 1.68 billion was allocated for the to buy back sovereign Eurobonds maturing in 2019 and 2020.

Aside from debt, in Q3, budget financing sources included privatization proceeds of more than UAH 3 billion. A revival of the privatization process will reduce the debt load on the budget.

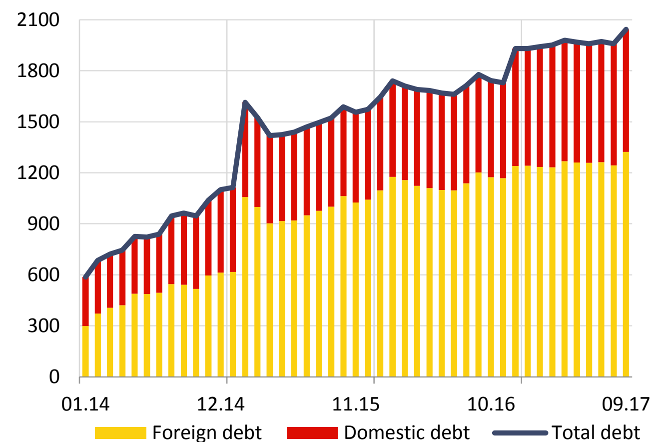
Despite the large domestic government bond issues and external borrowings, Ukraine's public and publicly guaranteed debt grew just 5.9% from the start of the year as of the end of September. The hryvnia's appreciation against the US dollar restrained the debt growth as a substantial portion of the debt was denominated in foreign currency. As of the end of September 2017, almost 70% of Ukraine's public and publicly guaranteed debt was in foreign currency, 60% of that denominated in US dollars.

**Consolidated Budget Balance Financing in January-September, UAH bn**




*Source: STSU; NBU staff estimates.*

**Public and Publicly Guaranteed Debt, UAH bn**




*Source: MFU; NBU staff estimates.*

## Box: Fiscal Multiplier as an Indicator of the Impact of Fiscal Policy on Ukraine's GDP

The fiscal multiplier is used around the world to assess the influence of fiscal policy on economic development; it reflects the short-term impact of discretionary fiscal policy measures[35] on a country's output. The fiscal multiplier is a coefficient that shows the change in real GDP in response to an increase of one unit in budgetary spending or revenues[36]. The indicator enables a quantitative assessment of the impact fiscal decisions have on the economy and it allows policymakers to make fiscal decisions without disrupting the economy's fiscal sustainability and to improve the quality of macroeconomic forecasts, including on price trends.

However contemporary views on the value of the fiscal multiplier differ. From a Keynesian perspective, a fiscal multiplier of greater than one indicates that fiscal policy is effective and justifies an expansion of fiscal tools for stimulating the economy. Proponents of fiscal stimulus argue that(Fata´s and Mihov, 2009):

– Empirical studies indicate that, on average, the fiscal multiplier is greater than one.

– Economic recessions release factors of production, which can increase the value of the fiscal multiplier.

– Under the standard Keynesian model, the fiscal multiplier is an increasing function of the marginal propensity to consume. Therefore, the fiscal multiplier will also be higher in low-income economies.

- When monetary policy is limited by the zero bound of the central bank's key interest rate, fiscal policy can be used to pursue countercyclical economic policy.

The opposing view on the efficiency of fiscal stimulus is based on the following (Hasset, 2009):

- Economies have neoclassical economic effects in the form of the Ricardian Equivalence: economic agents treat fiscal stimulus in the current period as a sign higher fiscal pressure on the economy in future and thus do not increase consumption and investment.
- Fiscal stimulus causes crowding-out effects, pushing interest rates upwards and thereby restraining economic growth.
- Numerous studies show that fiscal consolidation is beneficial for the economy (Giavazzi and Pagano, 1990). At the same time, whereas economists differ in their views on short-term impact of fiscal stimulus, they do agree that it has a negative impact in the long-run (Alesina et al., 1999; Barro, 1991).
- In the long-run, fiscal stimulus programs are difficult to end due to political considerations (over time, fiscal stimulus starts to threaten fiscal sustainability and affect economic trends).
- Fiscal policy can be considered ineffective for stimulating economic growth if the fiscal multiplier is below unity – and these values are fairly common in empirical studies.
- The impact of fiscal stimulus materializes with a delay, which makes it difficult to respond adequately to economic variables.
- Markets know better how to renew economic growth.

- Fiscal stimulus programs often serve the narrow political and economic interests of certain individuals and are not actually focused on macroeconomic needs.

Fiscal multipliers apply to budgetary spending and revenues, and have positive and negative values, respectively. Overall, fiscal policy's effect on real GDP is the weighted average multiplier of the different categories of taxes and budgetary spending. Several structural characteristics of an economy influence the value of the fiscal multipliers, which explains the difference between the fiscal multipliers in developed economies and the rest of the world. An analysis of research findings (Batini et al., 2014) shows that during "normal" times in developed economies, the budgetary spending fiscal multiplier is close to unity during the first year of fiscal changes. During that time, the tax revenue multiplier is approximately -0.5. On average, budgetary spending multipliers are greater than revenue multipliers (for absolute values), according to empirical studies. Fiscal multiplier values also grow during recessions.

Unfortunately, empirical research on the fiscal multiplier in developing and low-income economies is rather scarce. However, researchers agree that fiscal multipliers for those countries are lower than in developed economies. There are numerous

[35] Discretionary fiscal policy refers to conscious decisions made by a government to change taxes and/or budget revenues to influence a country's macroeconomic situation (changes in real GDP or employment, control over inflation processes, etc.). The opposite of discretionary policy is fiscal policy based on automatic adjustments of budget parameters depending on the economic cycle and in-line with established policy rules: so-called automatic stabilizers.

[36] In particular, an increase in government spending results in stronger aggregate demand and thus, higher national income. Higher income stimulates consumption growth, which leads to an increase in aggregate income, etc.

factors that can either increase[37] or reduce[38] multipliers and this explains different estimates of fiscal multipliers for non-developed economies.

According to research by the IMF (Mitra and Poghosyan, 2015) based on data for 2001–2013, in Ukraine the cumulative budgetary spending multiplier equals 0.43[39] one quarter after a fiscal decision was implemented and 2.9 over an eight-quarter horizon. Ukraine's tax revenue multipliers stand at (-0.3) and (-0.96), respectively.

**The highest multipliers among various categories of budgetary spending and tax revenues over an eight-quarter horizon**

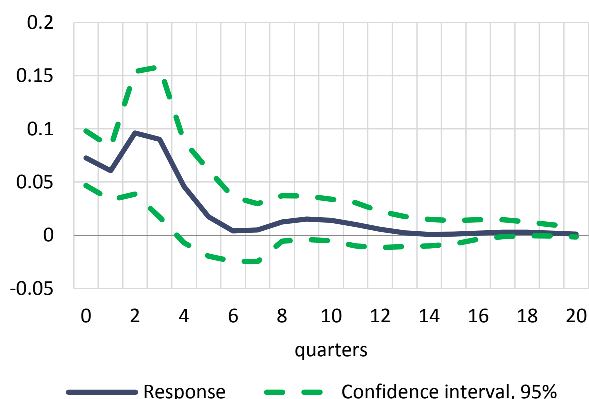
| Budget category | Multiplier |
|---|---|
| **Budget expenditures** | **0.35* (Q2)** |
| Wages in the government sector | 0.4 (Q1) |
| Expenditures for goods and services | 0.6 (Q2) |
| Capital expenditures | 0.7* (Q3) |
| Current transfers to households | -0.01 (Q1) |
| **Tax receipts** | **-0.43* (Q2)** |
| VAT | -0.7* (Q1) |
| Personal income tax | -2.9* (Q1) |
| Import duty | -2.7* (Q3) |
| Payments to social insurance funds | -2* (Q1) |

* - statistical significance of 95%.

*Source: NBU estimates.*

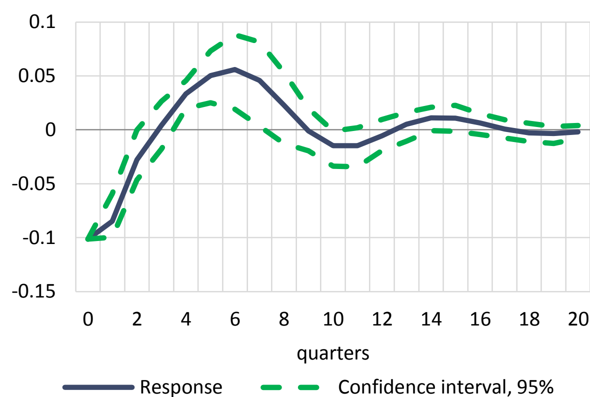
Using a similar approach to disaggregated fiscal data on spending and tax revenues for the period of 2001–2016, the NBU has found the following: Among budgetary spending items, capital expenditures have the highest multiplier. Current transfers to the population and wage payments have small or statistically insignificant multipliers, which may be related to the consumption of imports, savings, or the acceleration of inflation. Among general government sector revenues, personal income tax and payments to social insurance funds (payroll fund taxes) have the highest multipliers.

**Response of real GDP to 1% shock of budget expenditures, %**




*Source: NBU estimates.*

**Response of real GDP to 1% shock of taxes, %**



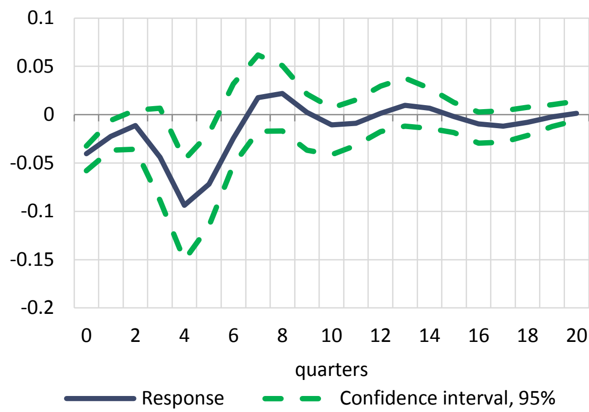

*Source: NBU estimates.*

The multipliers would seem to indicate that the reduction of the tax burden on the payroll fund that was launched in 2015 and which intensified in 2016 was justified in terms of stimulating economic growth. However, the introduction of compensatory factors aimed at minimizing fiscal losses casts doubt on this conclusion. Lower inflows to social insurance funds caused at least a short-term increase in the deficit of these funds, which had to be compensated either through an increase in other taxes or by a reduction of other expenditures. Judging by the multipliers obtained, reallocating budgetary spending to social security initiatives will not have a positive effect on economic growth. In the event the reallocation reduces budgetary capital expenditures, the effect will be negative. The reallocation proportions determine the magnitude of the overall impact.

The government estimates that the October 2017 initiative to bring pension payments up to date (read more in the box titled *Main Parameters of the Pension Reform*, page 26), will require an additional UAH 20 billion in Q4 2017. Empirical assessments suggest the fiscal multiplier of the Pension Fund's spending is relatively low and is rapidly losing its statistical significance. Moreover, the fiscal multiplier is actually negative since this type of spending influences price levels more than production growth. Given that other items will offset the impact of the increase in pensions on the budget (the budget deficit will remain below 2.5% of GDP in 2017 and 2018), the NBU estimates that the pension increase will be neutral towards real economic growth but will put moderate pressure on consumer prices (adding 0.3–0.6 pp to annual headline inflation in 2018).

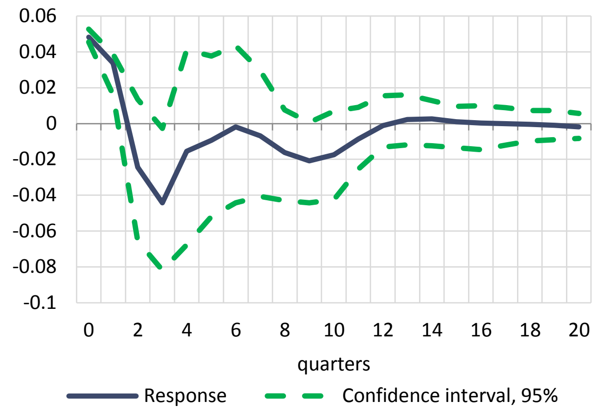
[37] These include, but are not limited to, a higher propensity to consume resulting from undeveloped financial markets and uncertainty about the future, a less effective monetary policy response, the low importance of automatic fiscal stabilizers, and lower public debt.
[38] Savings, including savings kept on hand, can be larger under conditions of uncertainty, ineffective management of budgetary spending and tax administration, emerging markets are mainly small and open economies.
[39] That coefficient means that a UAH 1 increase in budgetary spending makes real GDP grow by UAH 0.43. This interpretation is used in this text, unless stated otherwise.

**Response of real GDP on 1% shock of expenditures of the Pension Fund of Ukraine, %**




*Source: NBU estimates.*

**Response of consumer price index on 1% shock of expenditures of the Pension Fund of Ukraine, %**




*Source: NBU estimates.*

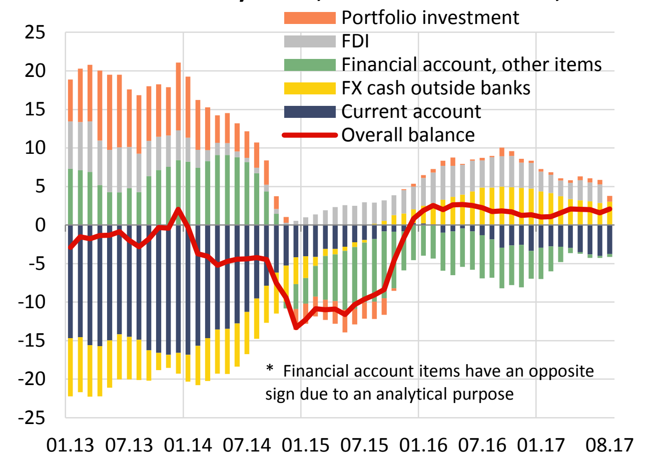
## 2.2.5. BALANCE OF PAYMENTS

Despite the adverse effect of the suspension of trade and seizure of export-oriented companies in the non-government-controlled areas (NGCA), Ukraine's goods exports grew 21% yoy in January-August 2017. Robust global metal and ore prices and last year's strong crop harvest drove the growth. However, goods imports grew at an even faster pace (22.1% yoy), driven by energy and machinery imports. That widened the trade deficit in goods to USD 5.2 billion. Ukraine's primary income account deficit also grew, to USD 700 million. The growth was driven by dividend repatriation[40] which was partially offset by an increase in remittances. An increase in natural gas transit to European countries widened the services trade surplus to USD 1.5 billion. As a result, the current account deficit widened slightly yoy in January-August 2017 to USD 2.1 billion.

Net financial account inflows increased to USD 3.4 billion in January-August 2017. A decrease in FX cash outside banks (USD 2.1 billion) remained the main source of financial account inflows. Foreign direct investment (FDI) in the real sector surged to USD 1.2 billion in January-August from USD 718 million in the same period last year.

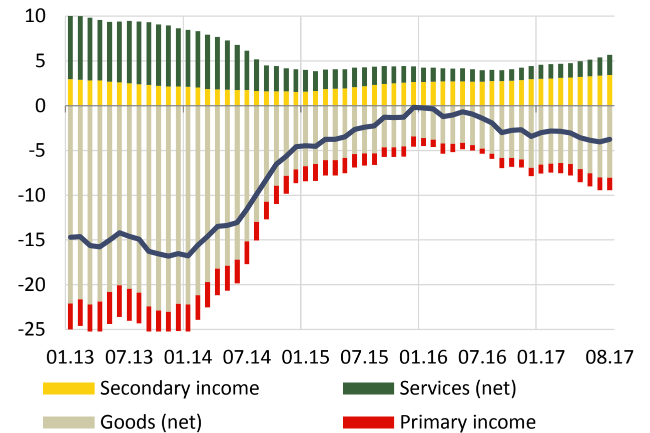
The surplus on the overall balance of payments and the government's return to the Eurobond market boosted international reserves to USD 18.6 billion as of the end of September 2017, or 3.7 months of future imports.

**Overall Balance of Payment*, 12-month cumulative, USD bn**




*Source: NBU*

**Current account balance, 12-month cumulative, USD bn**




*Source: NBU*

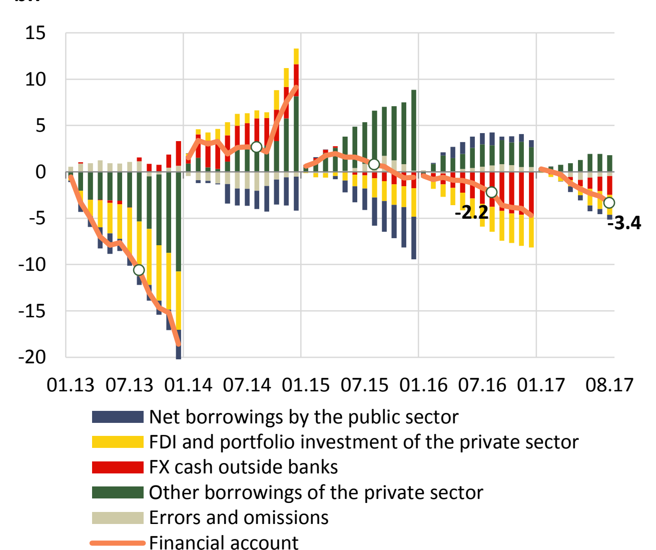
### Current Account

Ukrainian exports in most commodity groups grew materially from January-August 2017. Exports remained strong in July-August 2017 thanks to favorable global prices, this year's robust harvest, large carry-over stocks, and metal companies securing alternate sources of inputs more quickly than had been previously expected.

The negative effect of the suspension of trade with the NGCA and the seizure of companies in those areas will weigh on trade performance through the balance of the year. Overall, goods exports and imports performed in-line with the NBU's projections, with some variance across individual goods. Metals exports performed slightly better than expected as mining and smelting production recovered quickly, whereas the expected growth in iron ore exports did not materialize. However, an increase in global prices for ferrous metals and iron ore raised the export value of those commodities 17.1% and 51.5% yoy, respectively.

However, despite the positive developments in mining and smelting industries, growth in the value of metals exports slowed to 5% yoy in July-August. Apart from a higher comparison base last year, the slowdown came on an

**Financial Account: Net External Assets, cumulative YTD, USD bn**




*Source: NBU*

[40] In April 2017, the NBU allowed foreign investors to repatriate dividends for 2014, 2015, and 2016, streamlining the repatriation procedure.

increase in the percentage of cheaper pig iron in the ferrous metal exports composition.

Food exports also remained high in July-August. Although growth in the value of food exports slowed to 14.7% yoy, with a 43% share, food accounted for the bulk of goods exports.

A lower harvest this year against the background of a stronger export push by Russia prompted a drop in exports of wheat from the new harvest. Meanwhile, last year's bumper harvest boosted sunflower oil and oilseed exports, which contributed to overall food export growth.[41] Ukraine has exported record-high volumes of sunflower oil in the 2016/2017 marketing year – 5.8 million tons, up 30% yoy.

Exports of dairy and meat products also grew rapidly in July-August, up 36.8% yoy and 17.8% yoy, respectively. Butter exports posted a 10-year record high at 18,000 tons in January-August.

Exports of machinery products including turbo-jets, wagons, and parts thereof grew 14.6% yoy, driven by stronger demand from Russia.

Export performance of various commodity groups differed substantially by destination. For example, sunflower oil and iron ore exports only grew to European countries. Grain exports to Europe grew contrary to the overall reduction in grain exports. Demand from Asia specifically accounted for the growth in exports of dairy products, especially butter to Turkey. African countries reduced demand for Ukrainian grain and ferrous metals as Russia boosted exports. In July-August 2017, the share structure of Ukrainian goods exports by geographic region changed: EU countries increased their share to 35%, CIS countries fell to 19%, and Asia and Africa shrank to 32% and 8%, respectively.

Goods imports also grew rapidly (15.8% yoy in July-August), driven by:

- Strong demand from agricultural companies for machinery, oil products, and fertilizers

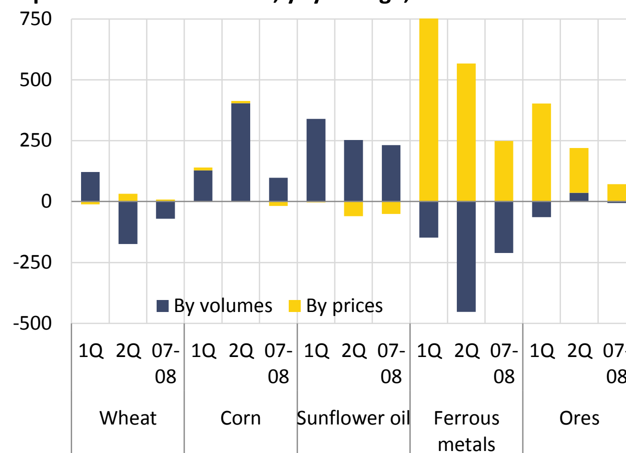
- Domestic coal shortages

- Rising domestic consumer and investment demand

Energy resources and machinery products continued to account for the bulk of imports at over 50%. Oil products remained the largest commodity sub-group. The pace of oil product import growth accelerated primarily in volume terms to 19% yoy, driven by robust demand from agricultural companies. A fall in natural gas prices helped imports accelerate in July-August.

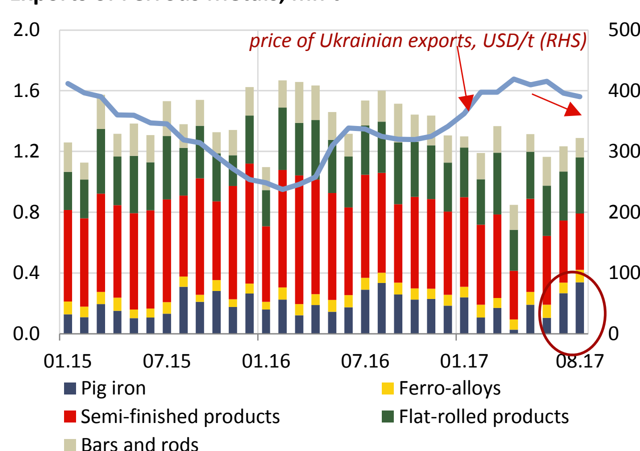
Coal imports also grew at a fast pace, doubling yoy in July and August. However, energy import growth slowed to

**Export of Selected Goods, yoy change, USD mn**



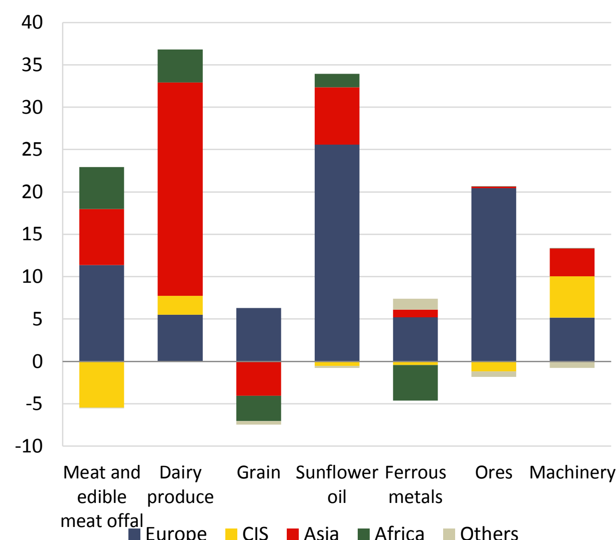

Source: NBU calculations

**Exports of Ferrous Metals, mn t**




*Source: NBU*

**Contributions to Annual Change in Selected Goods Exports (70% of Total Exports), by Regions in July-August, p. p.**




*Source: NBU calculations*

[41] The marketing year for sunflower products begins 1 Septembers and runs until 31 August of the following year.

42.1% yoy (from 84.6% in Q2) because gas imports were relatively high in the same period last year.

Growth in machinery imports slowed slightly but continued growing at a fast pace (20.6% yoy in July and August). Like last year, agricultural machinery accounted for 15% of all imports, with purchases financed by agriculture companies' high export proceeds.

In July-August 2017, European countries registered the most notable change in the regional structure of imports; natural gas, machinery, and pharmaceuticals imports grew the most quickly. US and Australia accounted for the bulk of coal import growth, while growth in imports of oil products and fertilizers was driven by CIS countries, especially Russia. On balance, the goods import structure underwent minor changes in July-August 2017: Europe's share increased slightly to 41%, while Asia's share slipped to 20%. The share of CIS and African countries remained steady yoy at 26% and 1%, respectively.

Trade in services again recorded a surplus, making a significant positive contribution to the current account surplus. Growth in services exports accelerated to 18.8% yoy in July-August, mainly on a further increase in natural gas transit. Despite Russia's increased use of the OPAL pipeline in August, growth in exports of Ukrainian pipeline transport services accelerated to 28.8% yoy in July-August after natural gas transit had reached a six-year high in Q2.

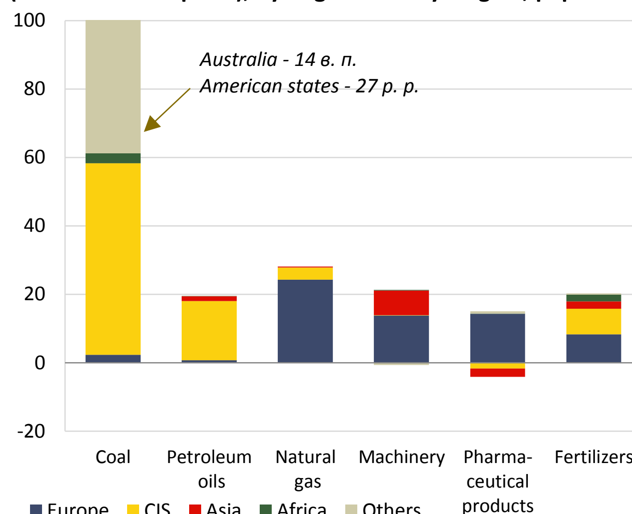
Imports of travel services continued to account for the largest share of services imports at 50%, up 7.2% yoy in July-August, driven by the continuing economic recovery. Meanwhile, growth in transportation services slowed to 7.1% yoy, which caused a 0.3% yoy deceleration in the growth of services imports in July-August.

Remittances grew 16.7% yoy in July-August, driven by a 150% increase in personal transfers. For the first time ever, the US accounted for the largest share of remittances in Q2 2017 owing to an increase in exports of IT services and other factors. The growth in remittances offset dividend payments, which grew on the back of the start of the repatriation of 2016 dividends. That pushed the surpluses on the primary and secondary income accounts to USD 41 million and USD 611 million, respectively, while the current account deficit narrowed compared to the same period last year, down to USD 800 million.

### Financial account

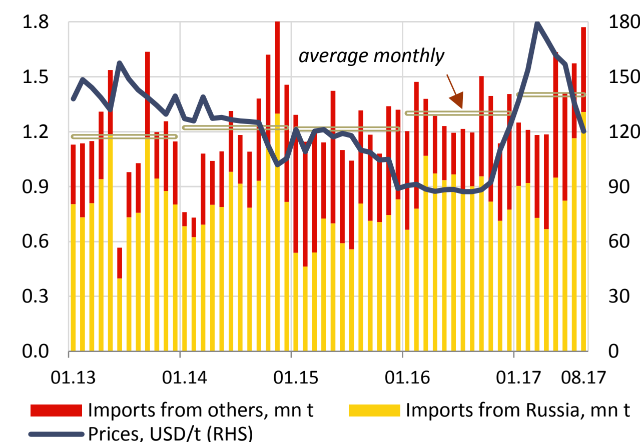
Net financial account inflows remained flat yoy at USD 1 billion in July-August 2017. The real sector again was the main recipient net financial account inflows, mainly through a further decrease of FX cash outside banks (USD 859 million), FDI inflows (USD 330 million) and increase of trade loans indebtedness (USD 418 million). At the same time, the banking sector remained a net creditor for the rest of the world (of USD 386 million).

**Contributions to Annual Change in Selected Goods Imports (55% of Total Imports), by Regions in July-August, p. p.**



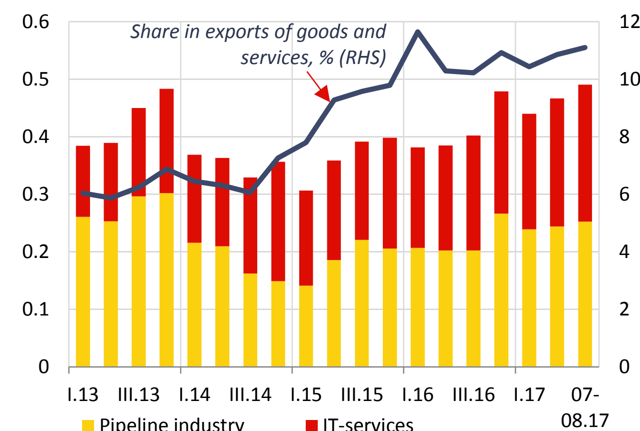

*Source: NBU calculations*

**Coal Imports**




*Source: NBU, SFS*

**Exports of Selected Services, average monthly, USD bn**



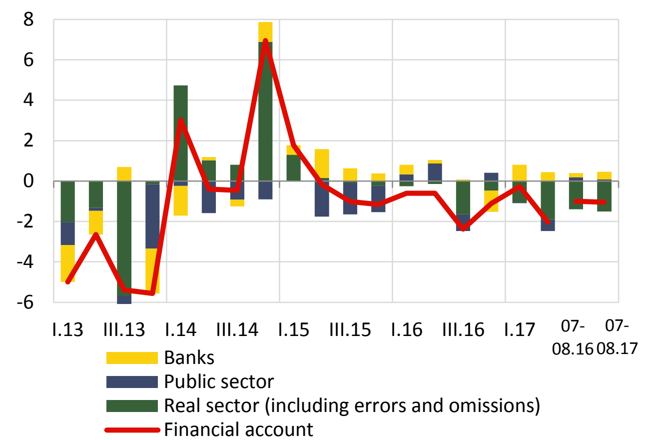

*Source: NBU*

Ukraine received USD 330 million in FDI in July-August, with 90% directed to the real sector. Excluding debt-to-equity operations, FDI was nearly flat yoy in July-August, up 60% yoy year-to-date.

The decrease in FX cash outside banks remained one of the key factors driving the private sector's financial account inflows. Although slightly up in July-August, the reduction in monthly average FX cash outside banks was lower than in the same period last year.

The private sector continued to attract net debt inflows of USD 252 million. The rollover rate in the private sector rose further to 92% in July-August, while the real sector's rollover rate exceeded 100% for the first time since 2014 due to an increase in real sector's net long-term borrowing as repayment of the banking sector interbank loans decreased.

**Financial Account: Net External Assets, USD bn**

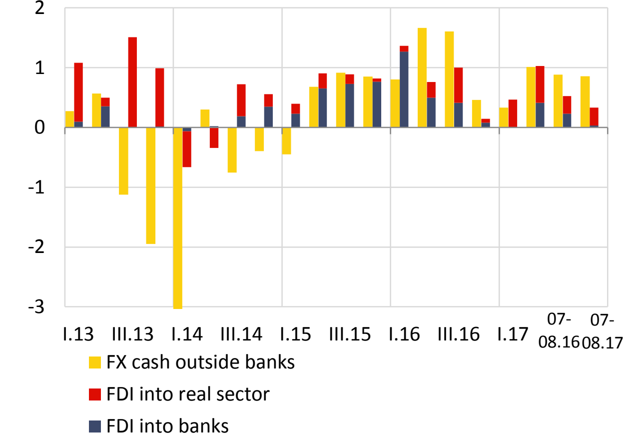



*Source: NBU*

**The rollover of long-term private external debt, %**[42]

| | I.16 | II.16 | III.16 | IV.16 | 2016 | I.17 | II.17 | 07-08.17 |
|---|---|---|---|---|---|---|---|---|
| Banks | 31 | 74 | 66 | 73 | 58 | 21 | 45 | 51 |
| Corporates | 67 | 53 | 62 | 58 | 60 | 45 | 90 | 102 |
| Overall | 55 | 56 | 64 | 62 | 59 | 39 | 86 | 92 |

**FDI* and FX Cash Outside Banks, USD bn**




*Source: NBU*

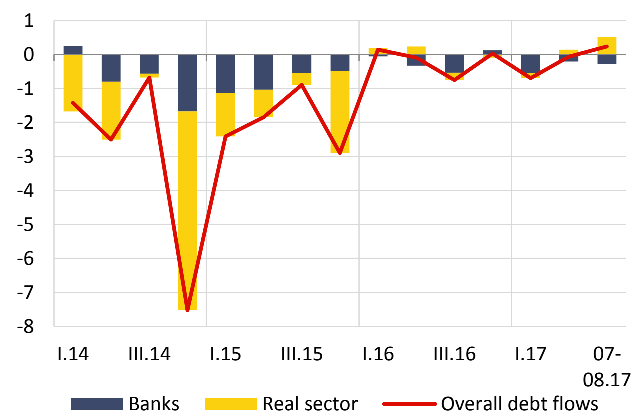
### Reserve assets

The surplus of the overall balance of payments (USD 233 million in July-August) and the government's successful return to the Eurobond market in September increased international reserves to USD 18.6 billion as of the end of September 2017, or 3.7 months of future imports.

### External sustainability

A moderate increase in external debt and the gradual economic recovery helped improve Ukraine's external sustainability and international reserve adequacy measures. The international financial assistance disbursement in Q2 resulted in an increase in Ukraine's gross external debt by USD 1.2 billion to USD 114.8 billion. The ratio of gross external debt to GDP dropped to 114% driven by the high growth rate of nominal GDP. Despite the improvement, Ukraine remains vulnerable to external shocks, particularly because of the economy's openness and an increase in short-term debt by residual maturity.

**Overall debt flows*, USD bn**




** Plus: inflow*
*Source: NBU*

Across sectors, the general government sector and the real sector accounted for almost equal shares of the debt growth (USD 860 million and USD 827 million, respectively).

The general government sector's debt rose to USD 37.3 billion in Q2 due to a disbursement of a EUR 600 million tranche of microfinance assistance from the European Commission in May 2017. At the same time, the outstanding amount of bonds decreased by USD 189 million after the

[42] Excluding debt-to-equity operations.

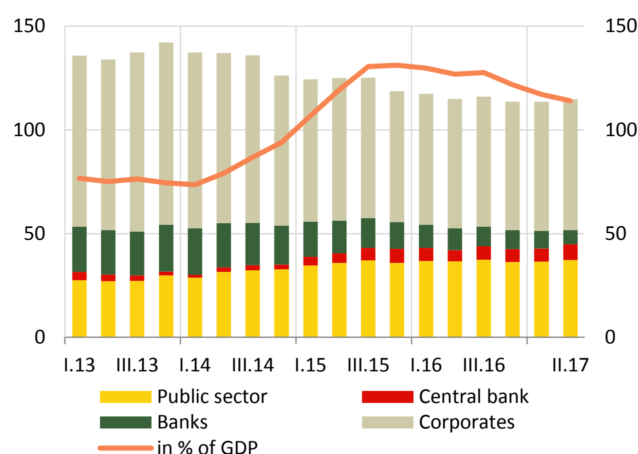
funds of some members of ex-President Victor Yanukovych's team were confiscated by court ruling. The disbursement of a third IMF tranche drove the NBU's external debt up by USD 1.2 billion to USD 7.6 billion.

The sale of USD 300 million in Eurobonds and a USD 686 million increase in trade credits pushed up the real sector's debt.

Meanwhile, the banking sector's external debt shrank in Q2 2017 by USD 1.7 billion (19.8%) to USD 6.8 billion as outstanding amounts of interbank loans and deposit in Ukrainian banks decreased.

An increase in short-term external debt by residual maturity (by USD 514 million to USD 46.7 billion) in Q2 was attributed to a USD 1 billion increase in public debt that falls due within the next 12 months. The latter reached the amount of USD 3.4 billion, including USD 1.9 billion to the IMF. The banking sector's debt outstanding fell by USD 1.2 billion or 25.5% in Q2 due to the drop in interbank loans and deposits. The real sector's short-term debt by residual maturity grew by USD 583 million to USD 35.9 billion due to an increase in trade credits and prepaid expenses.

**Gross External Debt, USD bn**



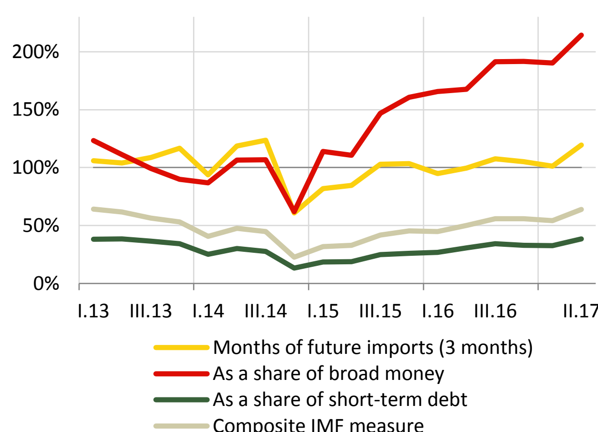

*Source: NBU*

**External sustainability and international reserve adequacy indicators**

| % | II.2015 | III.2015 | IV.2015 | I.2016 | II.2016 | III.2016 | IV.2016 | I.2017 | II.2017 |
|---|---|---|---|---|---|---|---|---|---|
| External debt-to-GDP | 119.3 | 130.5 | 131.3 | 129.7 | 126.9 | 127.7 | 121.8 | 117.1 | 114.0↑ |
| External debt/exports of goods and services | 229.8 | 248.3 | 248.1 | 255.8 | 252.6 | 257.6 | 246.7 | 232.7 | 227.4↑ |
| Short-term debt/gross debt | 43.6 | 41.0 | 43.1 | 40.6 | 39.8 | 39.1 | 41.4 | 40.6 | 40.7 ↓ |
| Short-term debt/GDP | 52.0 | 53.5 | 56.6 | 52.6 | 50.5 | 49.9 | 50.4 | 47.6 | 46.4 ↑ |
| Short-term debt/exports of goods and services | 100.1 | 101.7 | 107.0 | 103.7 | 100.4 | 100.7 | 102.2 | 94.6 | 92.5 ↑ |
| Economic openness [43] | 106.9 | 107.9 | 107.7 | 104.5 | 103.8 | 104.3 | 104.6 | 105.6 | 105.9↓ |
| Reserves/short-term debt | 18.8 | 24.9 | 26.0 | 26.7 | 30.6 | 34.4 | 33.0 | 32.8 | 38.5 ↑ |
| Reserves, composite IMF measure | 32.9 | 41.9 | 45.2 | 44.8 | 50.1 | 55.8 | 55.8 | 54.3 | 63.9 ↑ |
| Reserves in months of future imports (3 months) | 84.5 | 102.6 | 102.8 | 94.5 | 100.0 | 107.5 | 105.2 | 101.1 | 119.5↑ |
| Broad money coverage of reserves | 22.1 | 29.4 | 32.1 | 33.1 | 33.5 | 38.3 | 38.3 | 38.0 | 42.9 ↑ |

The material increase in international reserves (to USD 18 billion as of the end of June) significantly improved the central bank's reserve adequacy measures. Reserves as a share of broad money increased 4.9 pp, while reserves measured in months of future imports increased by 0.6 months. The ratio of reserves to the IMF composite measure (ARA metrics) rose 9.6 pp to 63.9%. Despite an increase in short-term debt by residual maturity in absolute terms, the ratio of reserves to short-term debt (the Guidotti-Greenspan criterion) rose 5.7 pp to 38.5%.

**Adequacy Criteria of International Reserves, %**



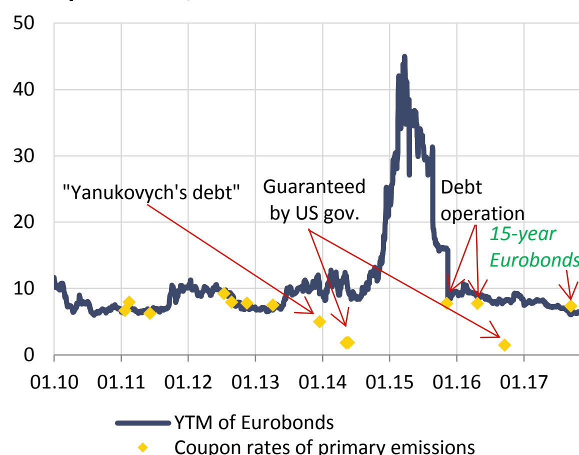

*Source: NBU calculations*

[43] Calculated as a ratio of the rolling 12-month sum of exports and imports to GDP for a given period.

## Box: Sovereign Ukrainian Eurobonds: Regaining Access to Capital Markets

In September 2017, after a four-year hiatus, Ukraine returned to international debt markets by placing USD 3 billion in 15-year Eurobonds at a coupon rate of 7.375% p.a. Prior to that issue, Ukraine last issued Eurobonds in April 2013: USD 1.25 billion in 10-year Eurobonds at 7.5% p.a. Following that issue, external imbalances amid a stagnant economy and a lack of structural reforms made investors anxious about Ukraine's ability to meet its obligations. In May–August 2013 alone, the yield to maturity on Ukrainian sovereign Eurobonds grew 300 bp to 10% p.a., which virtually closed off Ukraine's access to new market borrowings[44]. The protracted crisis of 2014–2015, the annexation of Crimea, and Russia's armed aggression limited Ukraine's access to capital markets, and the government only succeeded in placing US government-guaranteed Eurobonds for a total of USD 3 billion.

**Sovereign Eurobonds of Ukraine, YTM and Coupon Rates of Primary Emissions, %**



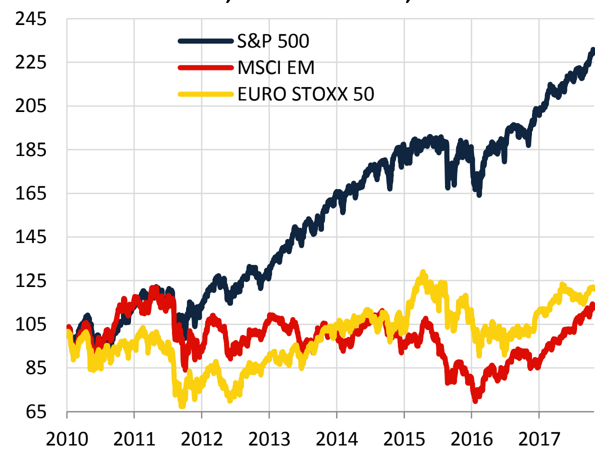

*Source: Cbonds.info*

In May 2015, Ukraine introduced a moratorium[45] on external debt payments and launched negotiations with the Ad Hoc Committee of Creditors on restructuring terms. Under the arrangements reached in November 2015, Ukraine would issue nine new bond series (completed in April 2016), with a 20% haircut on the old bonds' nominal value, a 7.75% coupon rate, and redemption over 2019–2027. Ukraine also issued derivative securities (VRI[46]) as part of the restructuring.

Although Ukraine had restructured its external debt, the country managed to return to international capital markets in less than two years. A macroeconomic stabilization since mid-2015, the gradual implementation of structural reforms, and prudent fiscal and monetary policies helped Ukraine regain access to capital markets. Numerous studies confirm the link between the macroeconomic performance of individual countries and their Eurobond spreads (Eichengreen and Mody, 1998; Min, 1998; McGuire and Schrijvers, 2003; Sahayetal, 2015). For example, IMF research (IMF, WP/16/100) shows that a 1 pp decrease in the budget deficit ceteris paribus leads to a 38 bp decline in yield spreads. Moreover, the importance of macroeconomic indicators to the formation of bond spreads increased after the global financial crisis of 2008 (Ghosh et. al., 2013). Studies show that defaulted countries have over time experienced a substantial reduction in the average length of time they are unable to access international capital markets. In the 1980s, defaulted countries spent approximately five years closed off from market access (Gelos et. al., 2004), but this fell to an average 4.1 years in the 1990s and 2.5 years in the 2000s (Richmond and Dias, 2008).

Market conditions were favorable for developing countries throughout 2017, which also helped Ukraine return to capital markets. Year to date in 2017 (to 25 October), the MSCI EM Index has grown 29.2%, approaching a high since 2011. Numerous developing countries have taken advantage of the favorable conditions to attract debt capital. Sovereigns issuing Eurobonds since June 2017 have included both new issuers and those inactive in recent years. Tajikistan placed Eurobonds for the first time in its 25 years of independence, selling USD 0.5 billion in 10-year Eurobonds at 7.1%. Argentina, which has defaulted eight times throughout its independence, issued 100-year Eurobonds at 7.9% p.a. Iraq, Venezuela, and Pakistan also issued sovereign Eurobonds.

**World Stock Indexes, 01.01.2010=100, as at 25.10.2017**




*Source: Thomson Reuters Datastream*

The investment attractiveness of developing countries has benefited from the slower-than-expected tightening of monetary policy by leading central banks, the low valuations and high yields of those countries' assets, and an improvement in economic development prospects on the back of renewed

[44] In December 2013, Ukraine placed Eurobonds on the Irish Stock Exchange, but this placement was the result of arrangements between the then President of Ukraine Viktor Yanukovych and Russian President Vladimir Putin (also known as *Yanukovych's debt*). Those Eurobonds carried a 5% p.a. coupon, substantially below the 12% yield on Ukrainian Eurobonds on the secondary market at the time of issue. Moreover, the entire first issue (USD 3 billion) was bought by the National Wealth Fund of the Russian Federation.

[45] The Law of Ukraine *On Specifics of Transactions with State, Publicly Guaranteed, and Local Debt* No. 436-VIII dated 19 May 2015.

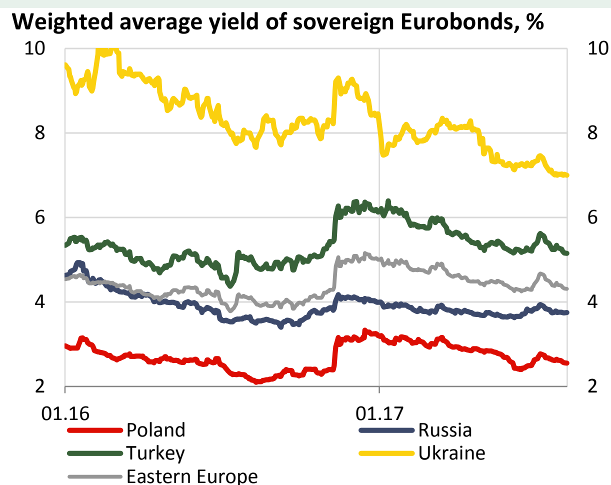
[46] The VRI (Value Recovery Instrument) is a derivative with repayments linked to Ukraine's GDP growth.

growth in global commodity prices and other factors. In addition, fears of capital flight from developing countries in response to monetary policy tightening by leading central banks have subsided as these countries have become more resilient to external factors in recent years.

Ukraine's return to international debt markets is a positive signal for investors, not only for debt investors but for prospective direct investors as well. Ukraine's re-emergence on international capital markets also improves prospects for new corporate issues, including by state-owned companies. Moreover, a portion of proceeds from the Ukrainian government's previous placement (USD 1.6 billion) was used to buy back Eurobonds maturing in 2019 (USD 1.2 billion) and 2020 (USD 0.4 billion). This debt-management operation has reduced Ukraine's medium-term debt burden.

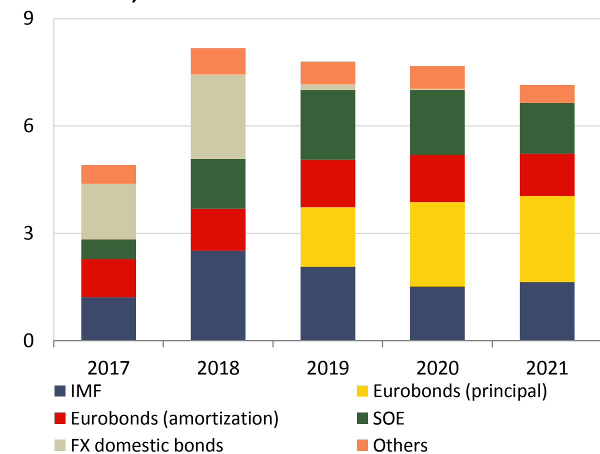
However, the external debt repayment schedule will remain tight over the coming years. In 2018–2021, Ukraine's annual payments are scheduled to exceed more than USD 7 billion of principal and interest of public and quasi-public FX debt. Therefore, Ukraine must continue to pursue structural reforms aimed at improving the business climate and conditions for long-term economic growth. In this context, continued cooperation with the IMF remains crucial – not only as a nominal anchor for the implementation of reforms and maintaining steady macroeconomic growth, but also to support Ukraine's participation in international financial markets. According to Mody and Saravia (2003) and Presbitero et. al. (2015), existing cooperation programs with the IMF are determinants of both opportunities to offer sovereign Eurobonds and of yield spreads.

**Weighted average yield of sovereign Eurobonds, %**




*Source: Cbonds.info*

**Principal and Interest Payments on FX Public and Quasi-Public Debt, USD bn**




*Source: IMF; Cbonds.info; NBU*

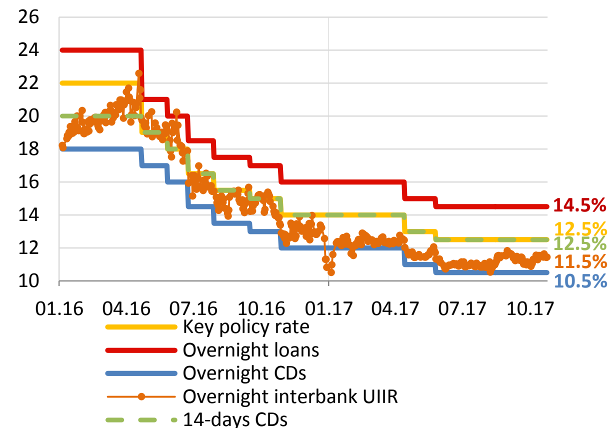
## 2.2.6. MONETARY SECTOR AND FINANCIAL MARKETS

In Q3 2017, the NBU held off monetary policy easing and maintained its key policy rate unchanged in a move to prevent a deterioration in inflation expectations amid high actual inflation rates. Keeping the key policy rate unchanged in recent months slowed the decline in interest rates on hryvnia-denominated market funds.

In Q3, conditions in the FX market were favorable, allowing the NBU to purchase foreign currency and continue liberalizing administrative FX restrictions. However, in September, the UAH/USD exchange rate volatility intensified due to seasonal factors, which forced the NBU to sell foreign currency to smooth out excessive fluctuations, without counteracting FX market trends.

In Q3, domestic currency deposits grew moderately driven by hryvnia household deposits. Banks continued increasing lending. Unlike last year when the revival was driven largely by lending to non-financial corporations, consumer lending has picked up substantially in 2017. Meanwhile, *the Lending Survey for Q3* showed market participants expect a further increase in lending and growth in bank deposit portfolio.

**NBU Policy Rates and Ukrainian Index of Interbank Rates, % pa**




*Source: NBU*

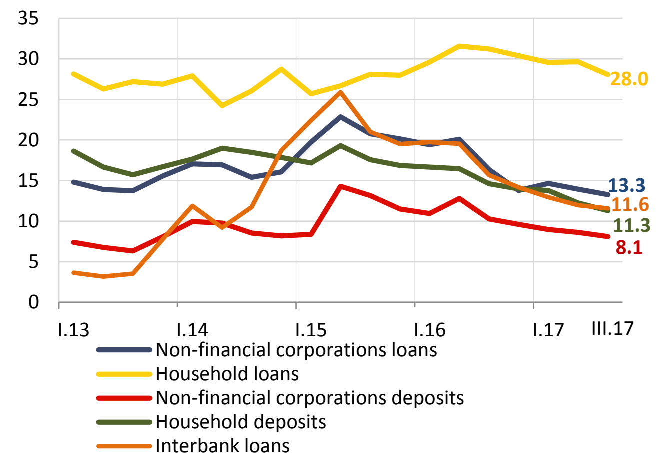
### Interest Rates

In Q3, the NBU Board maintained the key policy rate at 12.5% per annum amid heightened inflation risks. That was prompted by the need to bring inflation back to its target path while mitigating demand-pull inflationary pressures stemming, in particular, from a deterioration of inflation expectations. The latter was triggered by an acceleration of annual inflation since May 2017 and a pick-up of consumption due to rising wages and the expected increase in pension payments in October.

With the key policy rate kept unchanged in recent months, the decline in market interest rates for hryvnia resources somewhat slowed down, as market participants (professional financial analysts) [47] expected that an easing of monetary policy over the next 12 months will take longer to set in. Thus, the average weighted hryvnia interbank lending rate declined by 0.4 pp to 11.6% per annum in Q3 from Q2. In addition, rates in some months even grew slightly as liquidity contracted across the banking system because of quarterly tax payments.

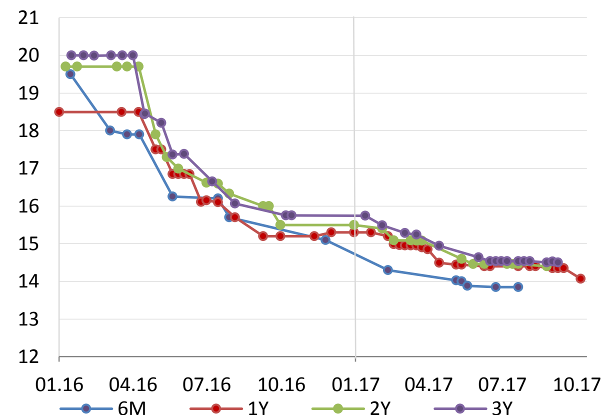
The yield on domestic hryvnia bonds in the primary market in July-August remained virtually unchanged, not least because of slack demand (government bond sales brought in approximately UAH 3.5 billion to the budget). The completion of quarterly tax payments provided some support to the primary market in September (with about UAH 2.9 billion raised), which drove yields on hryvnia-

**Average Weighted IR on New Hryvnia Loans (excl. overdrafts) and Deposits, % pa**




*Source: NBU*

**Term Structure of Hryvnia Yields on Primary Market, % pa**




*Source: NBU*

[47] In September, majority of financial analysts expected the NBU to hike the key policy rate over the next 12 months (about 50% of respondents, up from 14.3% in August). The number of respondents expecting a further easing of monetary policy decreased significantly to 12.5% from 42.9%. Overall, the average expectation for the level of the interest rate over the next 12 months grew.

denominated securities mildly lower across almost all maturities, both in September and in Q3 on average.

In October, the NBU and the MFU completed a debt reprofiling, having introduced a new financial instrument: inflation-linked hryvnia bonds. The reprofiling covered UAH 219.6 billion in domestic bonds, or almost two-thirds of all bonds in the NBU's portfolio. Some 66% (UAH 145.2 billion) of the reprofiled bonds were converted into long-term hryvnia inflation-linked bonds. The remaining bonds were converted into long-term fixed-yield hryvnia bonds. Fixed and floating rates will help diversify interest rate risk. In addition, by linking yields on some of the domestic government bonds to inflation will contribute to the efforts to pursue a prudent fiscal policy that is consistent with the NBU's objectives to maintain a low and stable inflation.

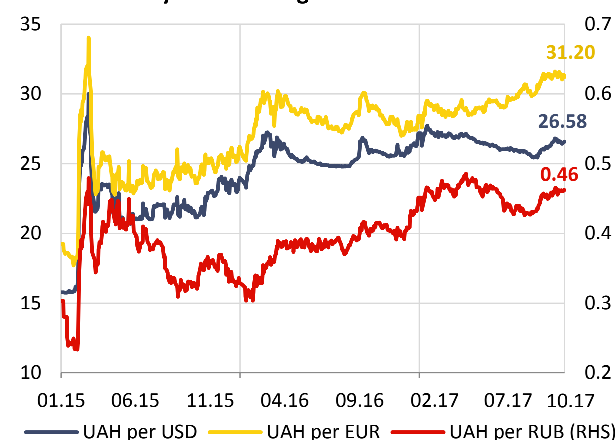
Interest rates on loans to non-financial corporations for almost all maturities (mainly from one to three months) continued their downward trend in Q3 2017. Stronger competition among banks was a major factor in that decrease. Rates on household loans also declined, mainly on short-term consumer loans. Interest rates on hryvnia deposits also continued to decrease as banking system liquidity has remained ample in Q3, despite some narrowing from the previous quarter.

### The Foreign Exchange Market

In July-August, FX market conditions remained favorable and the hryvnia appreciated against the US dollar. Apart from general increase of global prices on Ukrainian export commodities (reflected in the ECPI trend, see the External Environment Section on page 8), the trend was supported by considerable supply of FX cash by households. Households average daily sales of FX cash amounted to USD 36 million in Q3, 2.5 times higher than in Q3 2016, although demand for FX cash also rose. Moreover, official FX cash market operations were encouraged by the NBU's measures to gradually liberalize currency controls and cancel the pension fee on FX cash purchases from the start of the year. In this favorable environment, the NBU mostly purchased FX to replenish international reserves, avoiding counteracting FX market trends.

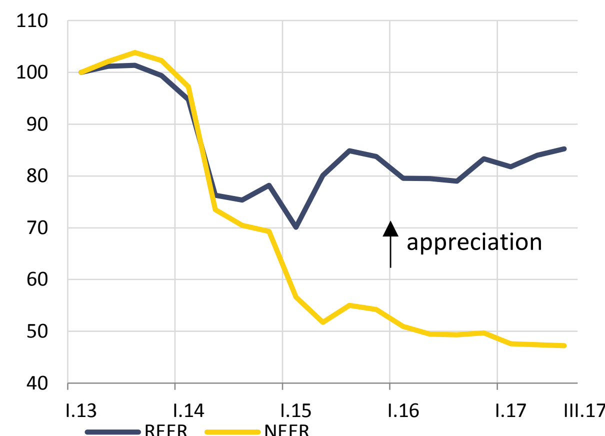
However, after a prolonged appreciation trend in the FX market, the UAH/USD exchange rate volatility intensified in September and the hryvnia faced depreciation pressure, including in the cash FX market. The hryvnia depreciated against the US dollar due to temporary and seasonal factors, while fundamental factors (global commodity price environment, in particular) remained favorable. Rising FX demand from oil and gas traders reinforced by a moderate increase in global oil prices put the depreciation pressure on the hryvnia FX rate in September. The psychological factor – expectations for a typical seasonal depreciation in the autumn – also played a significant role, making the cash FX market sensitive. The NBU scaled up its FX operations in September by selling FX to smooth out excessive FX rate

**The Official Hryvnia Exchange Rate**



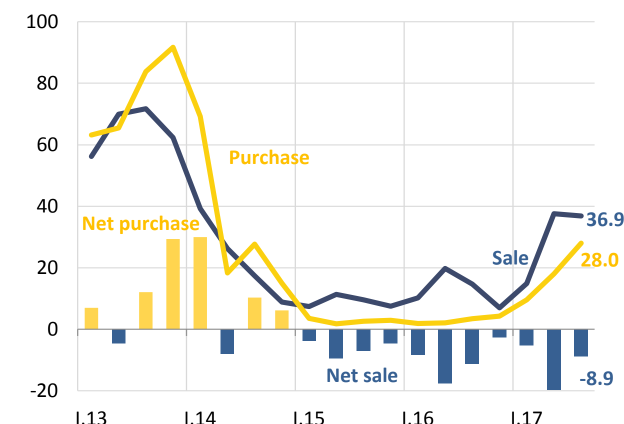

*Source: NBU*

**Hryvnia REER and NEER Indices (Based on Interbank Exchange Rate, I.2013=100, average)**




*Source: NBU*

**Daily Average Amount of Cash FX Purchased/Sold by Households, USD mn**



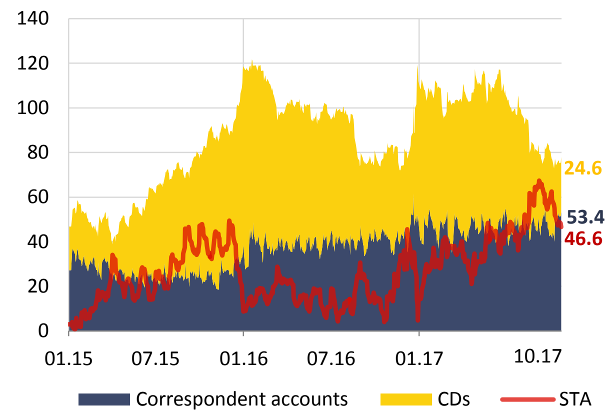

*Source: NBU*

fluctuations, without counteracting the gradual depreciation of the hryvnia caused by market factors.

However, the average official UAH/USD exchange rate appreciated (2.1%) in Q3 from the previous quarter. Despite higher volumes of FX sales in September, the NBU recorded USD 98 million in net FX purchases in Q3 2017. Since the start of the year, the NBU has purchased net USD 1.45 billion.

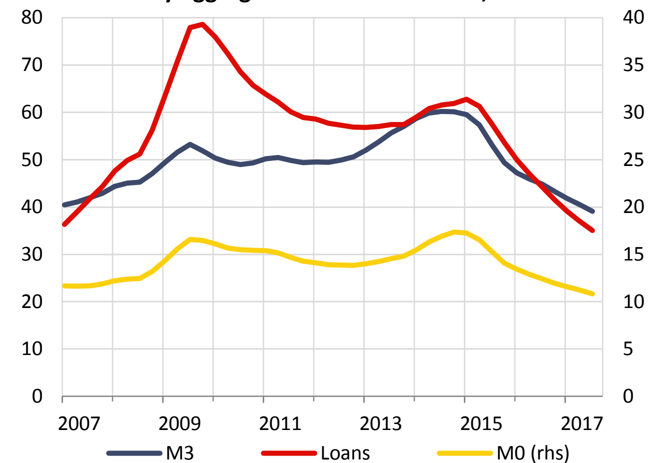
At the same time, a sharper appreciation of currencies in most of Ukraine's MTP countries against USD (on average for the quarter) weakened the hryvnia's NEER to 3.0% in September from June. As a result, the hryvnia's REER declined 1.4%. In annual terms, the hryvnia's NEER depreciated 2.9%. This, along with higher rates of inflation in Ukraine relative to its MTPs, pushed up the hryvnia's REER 9.0% yoy.

**Select Indicators of Banking System Liquidity, UAH bn**




*Source: NBU*

**Ratios of money aggregates and loans to GDP, %**




*Source: NBU*

## Box: The NBU's measures to liberalize the FX market and improve the functioning of financial markets

The favorable FX market situation throughout most of Q3 allowed the NBU to continue easing administrative FX restrictions by:

– Simplifying the procedure for the early repayment of loans borrowed from non-residents by expanding the list of exemptions

– Simplifying the terms of FX purchases and transfers for a number of transactions: transactions carried out by foreign investors with domestic government bonds, settlements involving foreign investment and the return of investment through one bank, standardizing cases of FX purchases for certain transactions related to the fulfillment of liabilities in foreign currency by a resident guarantor

– Expanding banks' capabilities to conduct FX transactions in the interbank FX market by increasing the limit for net purchases of foreign currency and investment metals within a business day from 0.5% to 1.0% of a bank's regulatory capital

– Allowing banks to purchase certain Eurobonds by holding a general license for FX operations (FX lending and borrowing) on global markets

– Eliminating all remaining restrictions on withdrawals of funds from bank accounts for individuals

– Liberalizing bearer savings (deposit) certificates by lifting a ban on their issuance and redemption only through the transfer of money to the account of the certificate's owner or bearer

– Simplifying the calculation of daily limits on net FX purchases for certain transactions

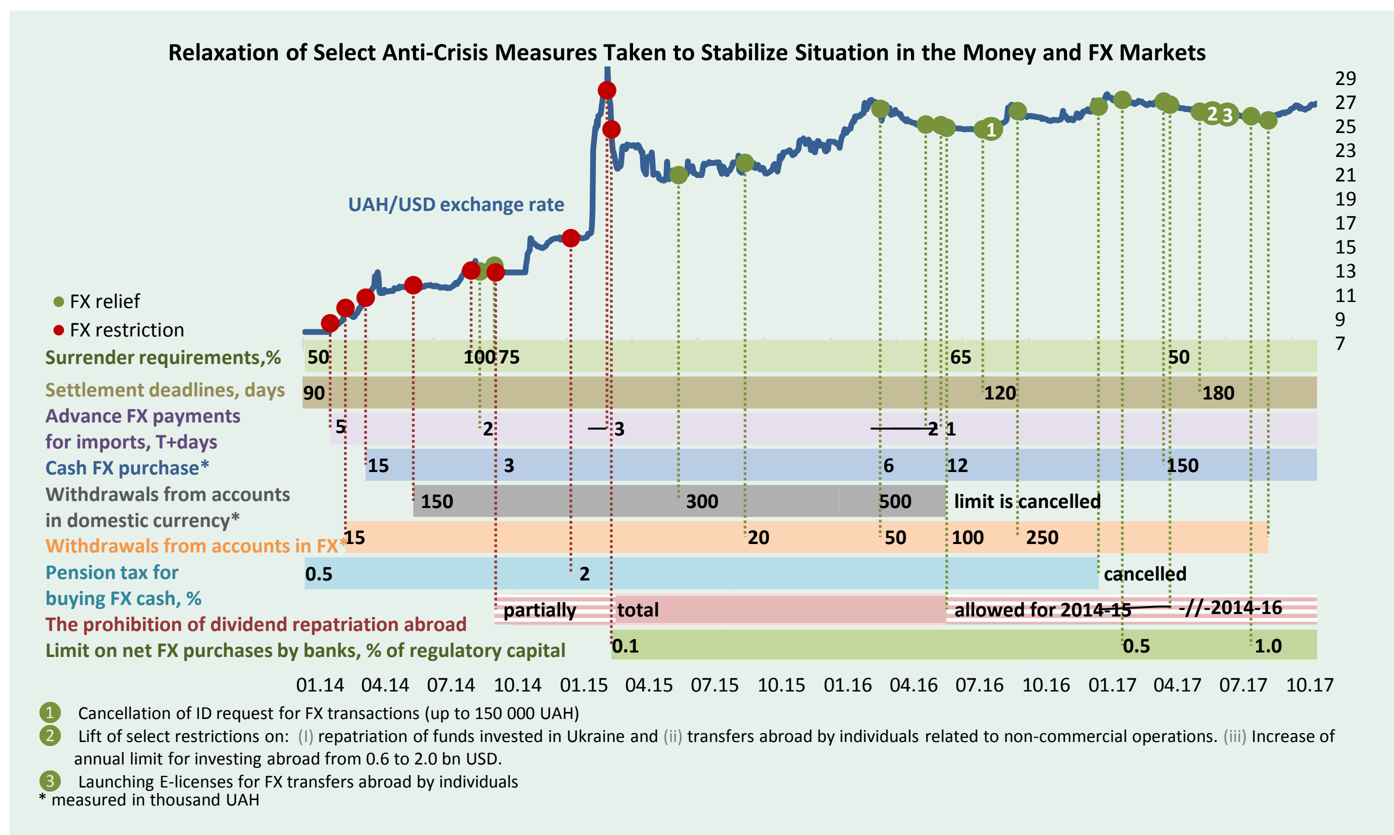
– Expanding the list of exemptions for the early repayment of certain loan types

– Allowing the use of foreign currency on client accounts as collateral for hryvnia loans

– Simplifying the procedure for residents to borrow from international financial institutions.

In September, the NBU streamlined the operational framework to enhance effectiveness of monetary policy aimed at maintaining low and stable inflation by:

- Introducing a weekly placement (on Wednesdays) of CDs with a three-month maturity through a single rate tender. This will help establish a yield curve for hryvnia-denominated instruments with a maturity from one to three months (read more in the box on page 48).
- Ceasing the daily placement of 14-day CDs and replacing it with tenders twice a week on Tuesday and Thursday.




## Base Money and Liquidity

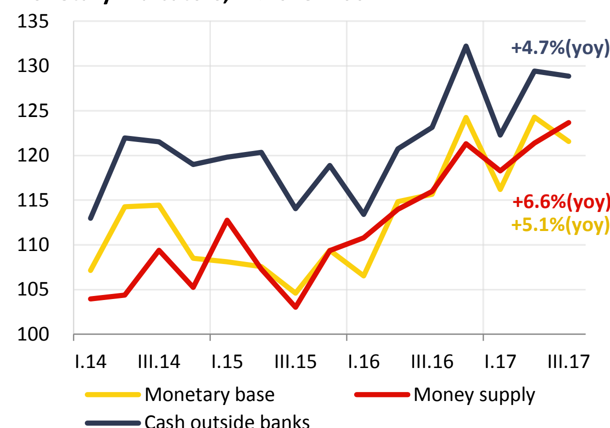
In 2017, the banking sector has maintained a surplus of liquidity. Like last year, the NBU has injected liquidity by purchasing FX on the interbank market to replenish international reserves. However, banking system liquidity contracted in Q3 2017. Liquidity was mainly absorbed by sizeable tax payments (including those levied on a quarterly basis) and other transfers to the budget in August, which caused banks to decrease stocks of NBU certificates of deposit. The average daily stocks in banks' correspondent accounts remained virtually flat from Q2.

The net liquidity absorption through fiscal factors is estimated at UAH 25.0 billion.[48] Liquidity in the banking system decreased on the back of operations carried out by bank liquidators (UAH 2.3 billion), bank loan repayments to the NBU (net lending operations with banks amounted to UAH -1.1 billion), and transactions with the DGF (UAH 0.6 billion).

Liquidity in the banking system was mainly injected through the NBU's FX purchases to replenish international reserves (in Q3 2017, net NBU purchases stood at UAH 2.4 billion) and a decrease in cash (by UAH 1 billion).

Despite the unchanged average daily balances, the amount of funds in banks' correspondent accounts declined as of the end of Q3 2017. The decline was greater than the NBU had projected in the July 2017 Inflation Report. Banks proved to have lower needs for mandatory provisioning.

**Monetary Indicators, IV.2013=100**




*Source: NBU*

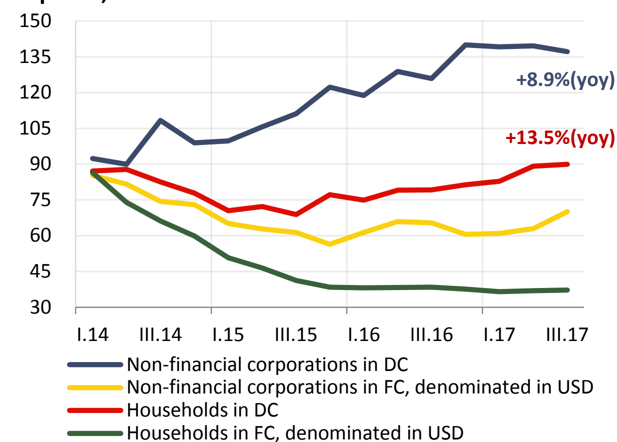
[48] The influence of fiscal factors on liquidity was assessed based on changes in balances in the single treasury account (up by UAH 14.9 billion), debt repayments by the government to the NBU (UAH 19.8 billion), and the part of profit transferred by the NBU to the budget (UAH 10 billion).

This, together with lower growth rates of cash outside banks, resulted in a more modest increase in the monetary base than expected (5.6% yoy and 5.1% yoy, accordingly).

### Money Supply and Components

Hryvnia deposits across bank customers developed differently in Q3 2017. In particular, household deposits continued to grow against the backdrop of rising household income. The stock of regional and local governments' funds also increased due to higher inflows to local budgets. The growth was partially the result of local authorities being granted greater power, including financial, as part of the decentralization process and improving economic environment. At the same time, corporate deposits decreased amid sizeable tax payments (including those levied on a quarterly basis) and other transfers to the budget in August. Total stock of hryvnia deposits increased just by 0.3% qoq, while the annual growth rate accelerated slightly to 12.4% against a lower comparison base.

**Deposits, IV.2013=100**

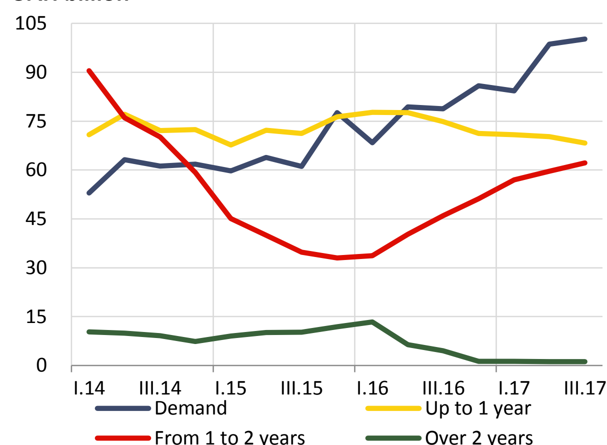



*Source: NBU*

On the other hand, FX deposits grew (in the USD equivalent) faster. Significant FX proceeds of corporates contributed to the growth in FX deposits. Household deposits increased at a slower rate. Government principal and interest debt payments caused a significant reduction in central government deposits.

The gradual growth of total stock of deposits and the moderate increase in cash outside banks contributed to a 1.9% qoq growth in money supply in Q3 2017 (6.6% yoy). The increase in money supply came in lower than the forecast published in the previous inflation report. That difference was caused mainly by a slower pace of deposit growth and lower demand for cash.

**Maturity of Domestic Currency Household Deposits, UAH billion**



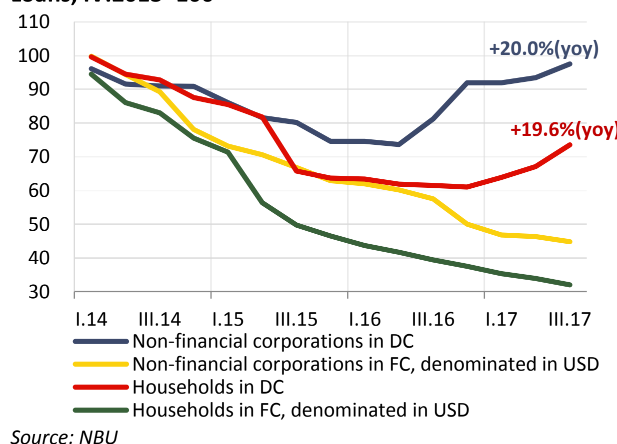

*Source: NBU*

### Loans

Banks continued to gradually scale up hryvnia lending activity. Total stock of loans for Q3 grew 5.2% qoq, yet in annual terms their increase slowed to 19.9% against a higher comparison base.

At the same time, outstanding loans to households were on the rise. Over the period, they grew 9.7% qoq, with the annual growth rate accelerating to 19.6% on the back of a revival of consumer lending. Car loans and loans for other consumer needs grew sharply. Additionally, banks pointed to growing demand for mortgage loans, although outstanding mortgages decreased. Lower borrowing costs and improved consumer sentiment pushed demand for loans to households higher. In addition, lending standards were eased further amid expectations of stronger borrower solvency as competition among banks has increased.

**Loans, IV.2013=100**




*Source: NBU*

Corporate demand for bank loans also grew, driven by higher needs for working capital and investment. The greatest demand came from enterprises engaged in professional, scientific, and technical activity, wholesale and

retail trade, electricity, gas, steam and air conditioning supply, and real estate firms. Amounts outstanding on hryvnia loans to non-financial corporations grew 4.3% qoq in Q3 2017, while annual growth decelerated to 20.0% against a higher comparison base.

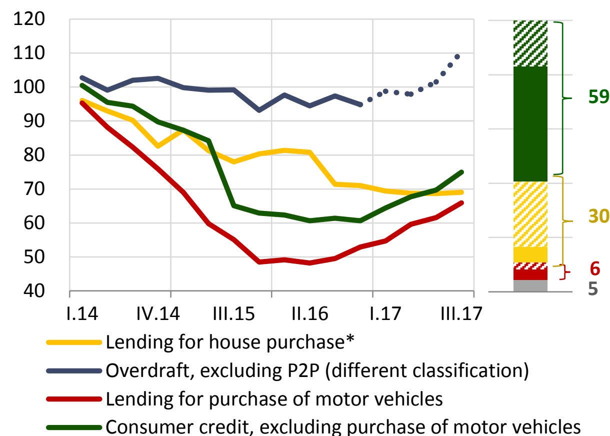
At the same time, amounts outstanding on FX loans (in the USD equivalent) continued to decrease for both households and the corporate sector, which was partly the result of the restructuring of FX loans.

Expectations for a further pick-up in lending remained positive. According to the *Q3 Lending Survey*, over the next 12 months banks are expected to expand loan and deposit portfolios, accompanied by an improvement of their quality in terms of both households and businesses.

Despite some signs of a revival of bank lending, the ratio of loans to GDP has been falling steeply since Q2 2015 as high inflation caused nominal GDP to grow quickly. However, bank lending has remained somewhat sluggish because of low borrower solvency and tighter lending conditions.

**Select Indicators of Households Lending in Hryvnia, IV.2013=100**

**Structure of Outstanding Amounts of Loans to Households**, %**




** Include lending for real estate purchase, its development or reconstruction*

*** Solid area stands for relative share of loans in hryvnia, while shaded – foreign currency. Gray area denotes other loans in all currencies*

*Source: NBU*

## Box: Analysis of Ukraine's Government Bond Yield Curve

The domestic securities market ensures an effective monetary policy transmission mechanism, the channel that transmits the key policy rate movements through the economy. It also improves liquidity management in the banking system.

In July 2015, the NBU, the MFU, the National Securities and Stock Market Commission, and the European Bank for Reconstruction and Development (EBRD) signed the Memorandum of Understanding on the Development of Local Capital Markets in Ukraine (referred to simply as "the Memorandum"). Building the yield curve was identified by the Memorandum as a key area for cooperation.

Why is the yield curve so important? The yield curve (or term structure of interest rates) represents the relationship between yields and maturities of securities. The curve allows the MFU to precisely assess debt value, which improves the effectiveness of public debt management and optimizes debt servicing. Yield curves offer information on which the government can base decisions on issuing securities of different maturities and to define the frequency of issue.

| Expectations hypothesis | Liquidity premium theory | Market segmentation theory |
|---|---|---|
| Over their investment horizon, investors have no preference when it comes to different maturities. Therefore, the forward rate for a specific period equals the expected future spot rate for that period. | Investors prefer shorter-term securities for their lower risk profile and they are prepared to pay a premium for those securities. Accordingly, the forward rate exceeds the expected future spot rate for the same period and yield curves slope upwards. | The market is segmented and participants usually invest within their standard segments. These factors form the supply and demand in each segment, which determine the interest rate, but not the overall supply and demand on the market. There is no direct relationship between short-, medium- and long-term rates. |

Yield curves typically take three shapes: long-term interest rates exceed short-term rates and the curve has a positive slope – a normal yield curve; short-term interest rates exceed long-term rates and the curve has a negative slope – an inverted yield curve; long- and short-term rates are approximately equal – a flat yield curve. However, the yield curve rarely falls into only one of these categories.

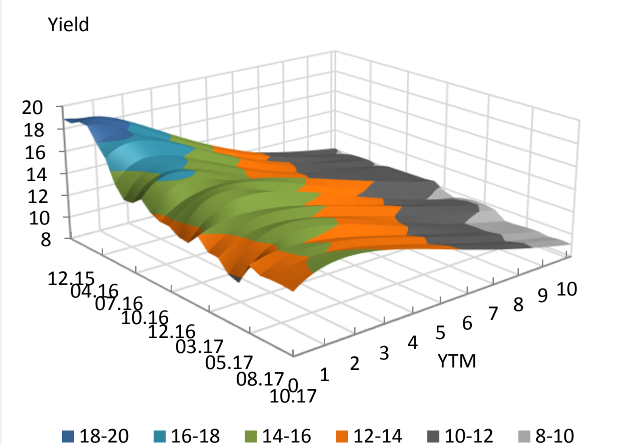
The level and shape of the yield curve are defined by hypotheses of the term structure of interest rates. For economic agents, the yield curve is an essential benchmark for the pricing of other assets, forming the basis for decision-making. For example, a security whose yield lies above the yield curve is considered a good investment as its current yield exceeds the market average and its price is undervalued. A yield that lies below the yield curve may be a signal to an investor to sell the security or not purchase it, as its yield is too low for its maturity and its market price too high. Banks also use yield data to manage liquidity.

Yields on securities of the same maturity can differ because of different coupon rates. The spot yield curve determines the yield of zero-coupon bonds. However, in practice, there are no zero-coupon bonds with maturities of more than one year; therefore, models are used to plot spot curves. The NBU uses the Nelson-Siegel parametric model[49]. The zero-coupon yield curve for government securities is essential for the deepening of the financial market, not only as an indicator of its condition, but also as a benchmark for assessing other financial instruments. Analyzing yield curve configurations is an important analytical tool as it reflects current and expected risk-free interest rates (base and benchmark) for various maturities that provide a reference for regulators (government bond issuers and central banks) and financial market players.

For the central bank, the yield curve plays an important role in enhancing the monetary transmission mechanism. Because the central bank can only influence the short end of the yield curve, for the empirical application it is used to analyze the mechanism behind the transmission of short-term rates to long-term rates, which determines consumption and investment decisions.

The yield curve is also a valuable source of information about the expectations of financial market players. The yield curve for government bonds is an indicator of market expectations for future short-term interest rate movements (Berk, 2004), which are contingent on several factors: GDP performance, fiscal sustainability, inflation, the domestic currency exchange rate movements, and more. In addition, the government yield curve

**Zero-Coupon Yield Curve for Ukrainian Hryvnia Government Bonds, % pa**




** Spot rates with continuously compounded interest plotted with use of Nelson-Siegel parametric model.*
*Source: NBU*

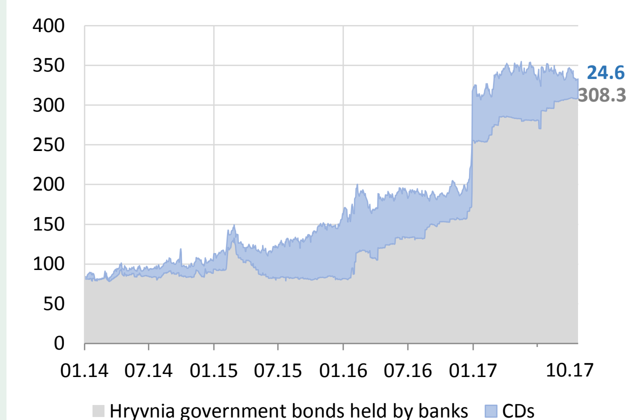
[49] For more information, see: https://bank.gov.ua/control/en/publish/article?art_id=25023355&cat_id=12064024 .

aggregates market expectations as an important indicator of the phase of the economic cycle (Kucera et. al., 2016) and is a measure of credibility of announced inflation targets (Goodfriend, 1993). Central banks use the term structure of interest rates to assess expected interest rates (based on the short end of the curve) and the expected inflation rate (based on the long end of the curve).

The importance of establishing a yield curve prompted the NBU to promote the further development of the government bond market. Starting in 2015, the regulator highlighted the importance of the key policy rate as part of the switch to an inflation-targeting regime. In early 2016, the NBU changed the operational framework of its monetary policy[50]. The NBU has introduced a short-term instrument: weekly auctions to sell certificates of deposit with maturity of up to 14 days. At the same time, to enhance the flexibility of the regulation of banking system liquidity, the NBU streamlined the requirements for banks to access liquidity support instruments. That includes an expanded list of securities accepted as collateral under overnight and repo transactions, and allowing banks to change collateral under refinancing loans[51]. In addition, starting in late 2015, the NBU amended the tender process for issuing refinancing loans [52] and initiated holding auctions to sell Ukrainian government bonds from the NBU's portfolio.

In 2016–2017, investor interest in government bonds grew, mostly in medium-term bonds with a maturity of 2–3 years. Demand for long-term bonds rose moderately. The greater demand is a signal that investors trust government debt instruments more. That shift came partly in late 2015 after the NBU began regularly publishing information on zero-coupon yield curves.

**The Stock of Government Bonds held by Banks and CDs, UAH bn**




*Source: NBU*

The weighted average yield on domestic hryvnia-denominated government bonds declined as the NBU eased monetary policy in 2016–2017. Although primary market activity was moderate, yields on domestic hryvnia government bonds decreased across all maturities on both the primary and secondary markets. Over that period, the short end of the yield curve quickly turned from inverted to normal.

Since the NBU's toolkit can only influence the short end of the yield curve, the NBU and MFU must cooperate jointly to develop the yield curve. To that end, to enhance the effectiveness of its monetary policy that targets low and stable inflation, the NBU changed its monetary policy operational framework of in September 2017[53]. The central bank resumed issuing three-month CDs, after a prolonged period in which the yield curve was unavailable for hryvnia-denominated instruments with maturity from one to three months. With a strong liquidity position of the central government sector, the MFU in 2017 did not issue three-month domestic government bonds and only irregularly offered securities with maturities of up to one year. Meanwhile, the maximum maturity on the interbank lending market is two weeks. Therefore, the number of short-term domestic government bonds available on the market is insufficient to build this part of the yield curve. The resumption of three-month domestic government bonds on offer is not intended to accumulate long-term liquidity, but to establish a reliable point on the yield curve. At the same time, the NBU has started holding twice-weekly placements of 14-day CDs instead of daily placements.

The Public Finance Management Strategy for 2017–2021 sets the following steps to build-up the yield curve over the medium- and long-term: eliminate bureaucratic and other barriers for non-residents to invest in domestic government bonds; maintain a dialog between the market and the MFU; and improve the liquidity of domestic government bonds by developing a pool of primary dealers.

[50] For more information, see: https://bank.gov.ua/doccatalog/document?id=30350021.
[51] For more information, see: http://www.bank.gov.ua/doccatalog/document?id=27809128, http://www.bank.gov.ua/doccatalog/document?id=27809129.
[52] Ukrainian government bonds, NBU deposit certificates, and foreign currency (US dollars, euro, pound sterling, Swiss francs, Japanese yen) are accepted as collateral for refinancing loans.
[53] For more information, see: https://bank.gov.ua/control/en/publish/article?art_id=54846332&cat_id=76291.

# 3. ECONOMIC OUTLOOK FOR UKRAINE

## 3.1. FORECAST ASSUMPTIONS

For the first time in over 10 years, both developed and developing economies are expected to grow in sync in 2017–2019. An accelerated recovery of consumer demand, growth in investment spurred by loose financial conditions, and a pickup in global trade will be important economic growth drivers. The adverse effect of stronger trade protectionism has waned across the globe. However, geopolitical developments, particularly rising tensions in the Middle East and the escalation of the conflict between the US and North Korea, continue to weigh on economic prospects.

Individual countries will experience the following:

– US GDP growth will accelerate, supported by stronger domestic demand against the background of stable unemployment and rising investment boosted by favorable financial conditions. With inflation expected to be muted relative to the targeted path, the US Federal Reserve is likely to raise the key interest rate gradually as it unwinds its balance sheet.

– Euro area economies will continue to outpace potential growth rates, bolstered by a cyclical recovery in industrial production, moderately expansionary fiscal policy, an increase of domestic consumption on the back of growing employment, and accommodative monetary policy by the European Central Bank (ECB) amid low inflation. At the same time, growing Brexit uncertainty and political risks, especially in Spain, loom over the EU's economic outlook.

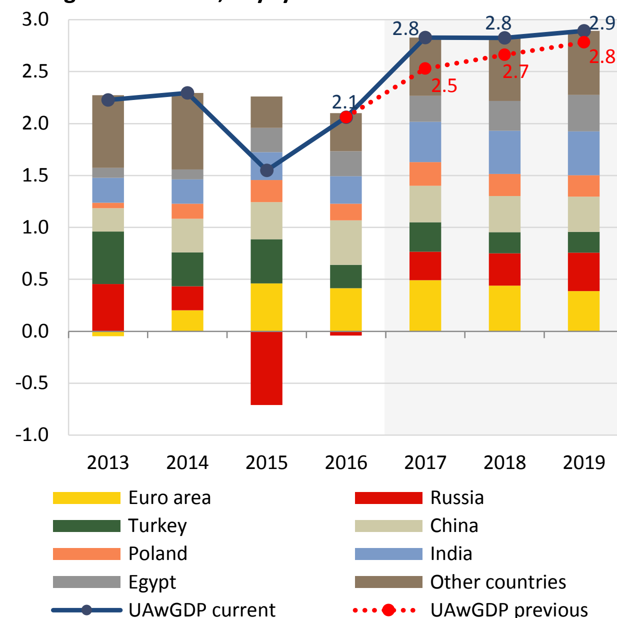
– CEE economies will grow steadily thanks to the strength of domestic demand driven by rising employment and wages, as well as higher interest in those countries' financial assets as they are less dependent on conditions in the euro area. Economic growth is projected to strengthen as exports recover spurred by steady demand from the CEE's major trading partners (particularly EU members).

– The Chinese economy will decelerate, but will remain among the world's fastest-growing. Strong public investment in infrastructure and production-related projects along with a growing service sector and domestic consumption will further support the Chinese economy. On the other hand, economic growth will be restrained by the country's massive corporate debt (USD 18 trillion, or 170% of GDP) and the impact of anti-dumping measures against Chinese producers.

– The economies of Turkey and Egypt will grow on the back of an improved global price environment and stronger demand from their main trading partners, especially euro-area countries, China, the US, and the Russian Federation.

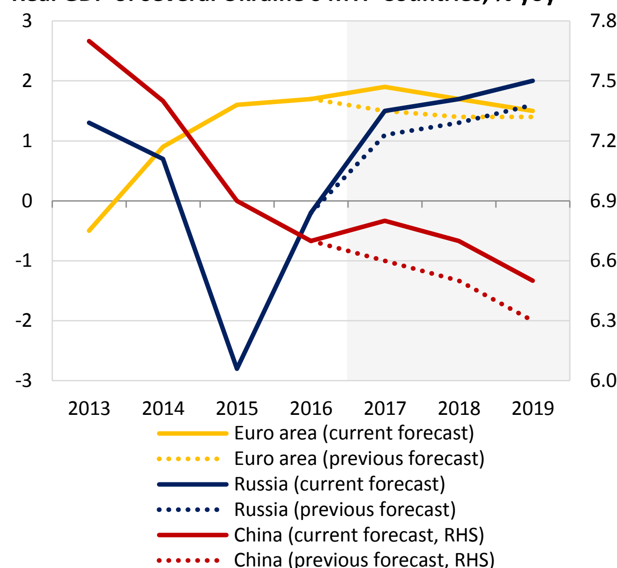
– The recovery of the Russian economy will gain momentum due to relatively stable oil prices and strong ferrous metals prices. A pickup in domestic demand driven by lower inflationary pressures and an increase of real household incomes will contribute to economic growth.

**Contributions of Ukraine's MTP Countries to the Annual Change of UAwGDP, % yoy**



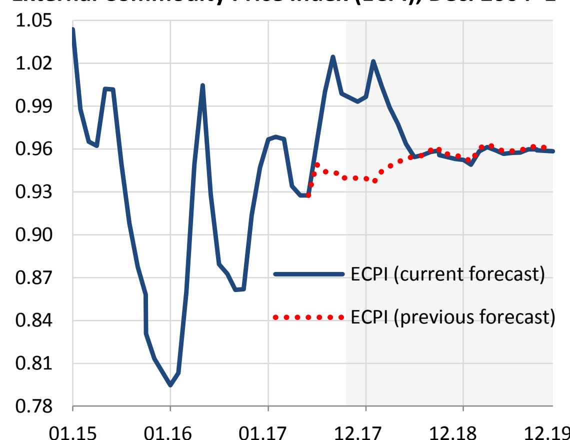

*Source: NBU staff estimates (preliminary data) based on IMF.*

**Real GDP of several Ukraine's MTP Countries, % yoy**




*Source: NBU staff estimates*

**External Commodity Price Index (ECPI), Dec. 2004=1**




*Source: NBU staff estimates*

Those trends will benefit neighboring countries, including Kazakhstan and Belarus.

In 2017, the external price environment will become more favorable for Ukrainian exporters, largely owing to higher ferrous metals prices. In 2018–2019, that growth will subside and prices will stabilize, with minor upside beyond 2019.

Despite possible adjustments, prices for ferrous metals will remain high on the back of stronger demand and anti-dumping duties, as well as due to a shortage of certain components of metals production, which will boost production costs. According to S&P Global Platts, the world faces a shortfall of steel graphite electrodes, which are used for electric arc furnaces and ladle furnaces in the metals industry and in the production of lithium-ion batteries. That has forced some factories to shut down or restructure their production. The shortage has also prompted metals companies to raise contract prices 40–50%.

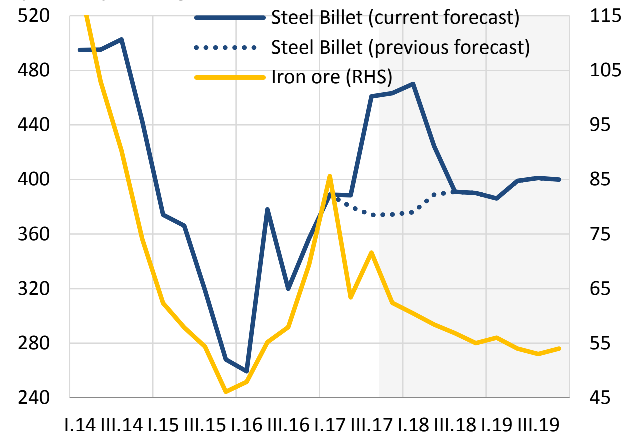
The Chinese government's decision to order metal producers to cut output from 15 November 2017 to 15 March 2018 in order to combat air pollution is also likely to have a major effect on ferrous metals prices. Steel production may drop by up to 50% at some companies. On the other hand, an activity pickup on the global steel market starting in Q2 2018 will push ferrous metals prices lower.

Higher production volumes will continue to weigh on iron ore prices. Along with increased production by global leaders Australia and Brazil (BHP Billiton, Rio Tinto, Vale), other countries such as Iran and Angola are also increasing output.

Global grain prices will gradually increase as output declines while consumption remains steady. Global grain production is expected to decrease 3% yoy in the 2017/2018 marketing year (MY)[54]. However, wheat output will decline only 0.8% yoy as Russia, Canada, India, and the EU are expected to have better harvests. Meanwhile the corn harvest will drop 4.6% yoy, despite a slight improvement of production prospects in the US and Argentina. Global grain consumption will hit a record high in the 2017/2018 MY, growing 0.5% yoy. Therefore, at the end of the season, the global grain inventories will likely decrease for the first time in five years, in particular, corn inventories in the US and China will decline most.

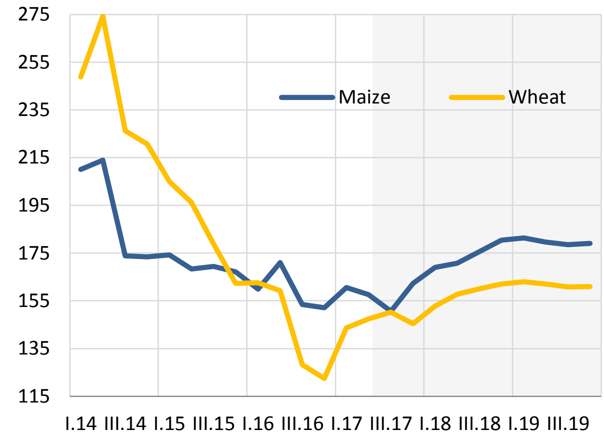
Global oil prices are expected to grow moderately as demand rises and major oil producers stick to the OPEC+ agreement to cut production (although full compliance is lacking). Geopolitical conflicts in the Middle East that may cause oil supply disruptions will additionally support prices. Lower costs of oil production, the hefty potential of shale oil production in the US, and the ability of this segment to quickly react to changing market conditions will keep price growth moderate. In 2018, gradual growth in demand, especially from the US, China, India, and Japan, will support prices. OPEC sees total consumption rising 1.5% yoy in 2017 and 1.4% yoy in 2018.

**World price of ferrous metals and Iron Ore Prices*, USD/MT, quarterly average**



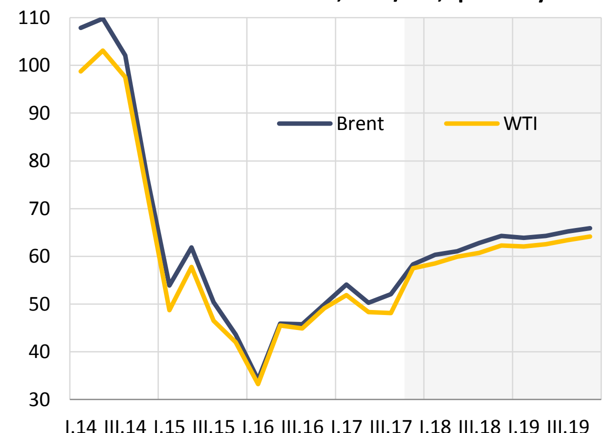

*Steel Billet Exp FOB Ukraine
* China import Iron Ore Fines 62% FE spot (CFR Tianjin port)
*Source: NBU staff estimates, based on Metal Expert*

**World Cereal Prices, USD/MT, quarterly average**




*Source: NBU staff estimates*

**Brent and WTI Crude Oil Prices, USD/bbl, quarterly average**




*Source: NBU staff estimates*

[54] According to estimates by the International Grain Council from 28 September 2017.

| | CPI, change as of the end of period, % | | | GDP, annual change, % | | | Exchange rates* | | Commodity Prices**, USD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Euro area | Russia | USA | Euro area | Russia | USA | USD/EUR | RUB/USD | Imported gas, per 1m³ | Brent crude oil, per bbl | Ferrous metals export, per ton | Grain export, per ton |
| **2014** | -0.2 | 11.4 | 0.8 | 0.9 | 0.7 | 2.4 | 1.33 | 38.3 | 292.5 | 99.1 | 481.5 | 201.2 |
| **2015** | 0.2 | 12.9 | 0.7 | 1.6 | -2.8 | 2.6 | 1.11 | 61.0 | 274.0 | 52.5 | 336.1 | 166.9 |
| **2016** | 1.1 | 5.4 | 2.1 | 1.7 | -0.2 | 1.6 | 1.11 | 67.1 | 200.9 | 43.9 | 299.4 | 153.4 |
| **2017** | 1.4 | 4.0 | 2.0 | 1.9 | 1.5 | 2.3 | 1.13 | 58.3 | 223.5 | 53.7 | 401.3 | 157.0 |
| **2018** | 1.4 | 4.0 | 2.0 | 1.7 | 1.7 | 2.4 | 1.18 | 58.1 | 235.8 | 62.1 | 385.5 | 168.1 |
| **2019** | 1.6 | 4.0 | 2.0 | 1.5 | 2.0 | 2.2 | 1.18 | 58.1 | 260.3 | 64.8 | 376.8 | 172.7 |
| **annual change**, *%* | | | | | | | | | | | | |
| ***2015*** | | | | | | | *-16.5* | *59.3* | *-6.3* | *-47.0* | *-30.2* | *-17.1* |
| ***2016*** | | | | | | | *0.0* | *10.0* | *-26.7* | *-16.4* | *-10.9* | *-8.0* |
| ***2017*** | | | | | | | *1.8* | *-13.1* | *11.3* | *22.3* | *34.1* | *2.5* |
| ***2018*** | | | | | | | *4.4* | *-0.3* | *5.5* | *15.6* | *-4.0* | *7.1* |
| ***2019*** | | | | | | | *0.0* | *0.0* | *10.4* | *4.3* | *-2.2* | *2.7* |

** Average for the year.*
*** Average weighted by volume, excluding oil.*

## 3.2 PRICES

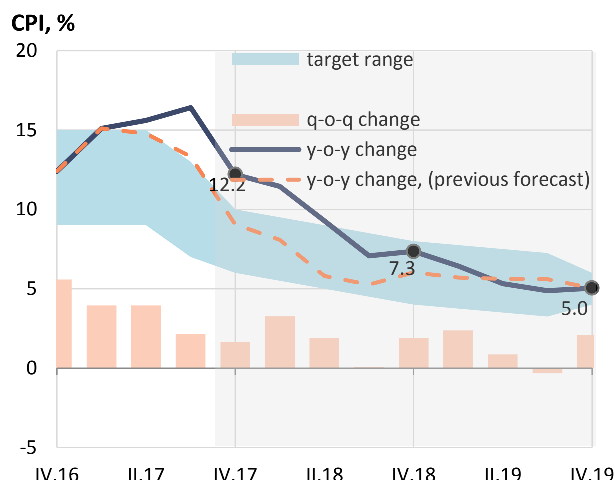
The NBU has raised its inflation forecast for 2017 and 2018 after price growth accelerated in recent months and new inflationary factors appeared. These factors include a stronger increase in consumer demand and growth in pension payments, the minimum wage, excise taxes on tobacco products, and more. Inflation is now projected at 12.2% as of the end of 2017, 7.3% in 2018, and 5.0% in 2019. Following acceleration in Q3 2017, inflation will slow and will approach the midpoint of the target range in Q3 2018. However, because of the expected increase in administered prices in Q4 2018 (especially heating rates), the inflation forecast will temporarily deviate from the targeted path.

Inflation will subside as monetary policy remains relatively tight over the forecast horizon and the effect of higher food prices fades (global meat prices have already started to decline). Growth in both raw food prices and core inflation (which is itself heavily influenced by food prices) will slow. A deceleration of imported inflation amid low exchange rate volatility will also curb inflation. Overall, the underlying inflationary pressure will remain moderate over the forecast horizon.

Among inflation components, administered prices will grow fastest (10%-16%), driven by a pass-through from a gradual increase in global energy prices, as well as by Ukraine's excise policy.

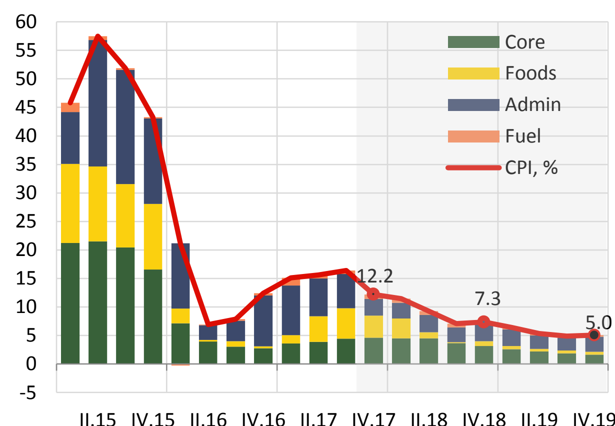
Core inflation is projected at 8% at the end of 2017. Inflation has accelerated since the start of this year because of higher personal incomes and production costs after the minimum wage hike early in the year. Among core CPI components, services prices will grow fastest. The increase in core inflation will be supported by growth in processed food prices due to secondary effects from higher raw food prices. At the same time, a decline of imported inflation amid low exchange rate volatility, high unemployment, and tight monetary policy will continue to restrain core inflation.

**CPI, %**




*Source: SSSU, NBU staff estimates*

**Contribution to Annual Growth of CPI, p.p.**




*Source: SSSU, NBU staff estimates*

Over the medium term, core inflation will decrease to 5.5% in 2018 and 2.9% in 2019. Rapid growth in nominal household income, including due to higher social standards (minimum wages and pensions), and GDP approaching its potential level will be the main factors that drive core inflation. Imported inflation is projected to decline over the forecast horizon thanks to low inflation environment in Ukraine's MTPs.

Raw food inflation is forecast at 20.2% this year. Most of this year's price growth has already taken place in the first three quarters of the year, primarily on the back of increased exports of Ukrainian food products, which reduced domestic supply, and unfavorable weather in spring. Rising real household incomes bolstered the price growth on the demand side. The annual growth rates of food inflation are expected to start decreasing gradually in Q4 2017 and continue decreasing over the forecast horizon.

Raw food prices are expected to grow moderately (2%-5%) in 2018–2019, provided there are no significant supply shocks. High crop yields and agricultural output, driven by investment and improved productivity, will rein in food inflation. However, rising nominal and real household income will contribute to upward pressure on inflation.

Although administered price inflation will slow over the forecast horizon, it will remain high: 15.8% in 2017, 13.8% in 2018, and 11.6% in 2019. Administered prices will rise because of further growth in utility providers' costs, driven by the wage increase, as well as higher prices for imported energy resources, especially natural gas, which determines central heating and hot water rates for households.

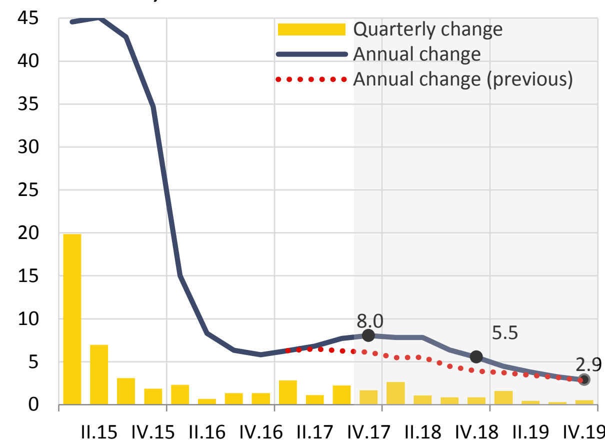
Prices for tobacco and alcohol products are expected to contribute substantially to administered price inflation – they are expected to grow 36% and 13%, respectively, in 2017 and 18% and 10% in 2018. This will be largely driven by continued growth in excise tax rates as Ukraine has committed to harmonizing tobacco excise taxes with EU rates.

Fuel prices will increase 16% in 2017, largely matching global oil prices. Looking ahead, fuel prices will also change in-line with the hryvnia-equivalent global oil prices and will depend on Ukraine's tax policy.

## 3.3. REAL ECONOMY

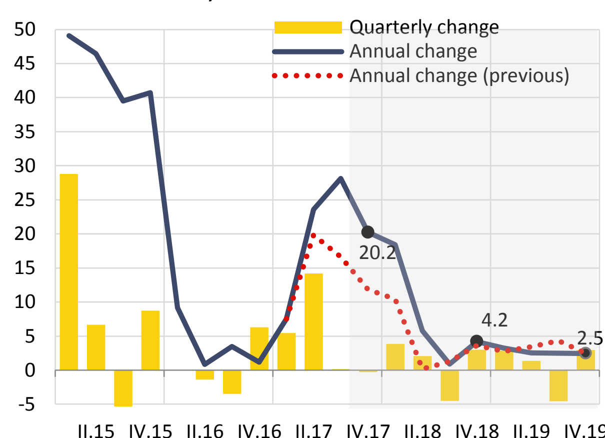
The NBU has revised its 2017 GDP growth projections upwards on the back of improved performance across most industries. Real GDP growth is expected at near last year's level of 2.2%. That pace of growth will be largely determined by a pickup in private consumption mostly driven by faster growth in real wages, as well as increased investment activity by businesses. A decline in the output of some industries due to limited access to the goods produced by companies located in the NGCA has held back economic growth this year. In this environment, net exports will make a significant negative contribution to the change in GDP this

**Core Inflation, %**



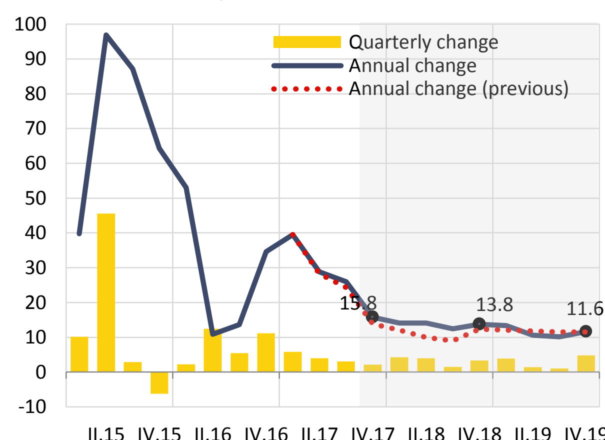

*Source: SSSU, NBU staff estimates*

**Raw Food Inflation, %**




Source: SSSU, NBU staff estimates

**Administered Prices, %**




Source: SSSU, NBU staff estimates

year owing to greater needs for additional imports of energy resources like coal.

Economic growth is expected to accelerate to 3.2% in 2018 and 3.5% in 2019. Private consumption will continue to be the main growth driver over the forecast horizon thanks to higher real wages. A resumption of lending and an improvement in the economy's investment attractiveness amid a continued easing of fiscal policy will also spur economic growth. Meanwhile, investment growth will slow slightly due to higher production costs and the gradual formation of fixed capital. Companies in the agriculture, mining, metals, construction, and other sectors will invest actively.

Exports will continue to grow thanks to better terms of trade, high yields, strong crop production, and a full recovery in export-oriented industries, especially in the metals industry as raw material supply issues have been resolved. At the same time, imports will satisfy a significant portion of domestic demand and capital investment needs. As a result, the contribution of net exports will remain negative over the forecast horizon.

Private consumption will remain the main economic driver over the forecast period, mainly as real wages increase on the back of the government's efforts to raise living standards and other factors. Private consumption is projected to grow 6% this year and slow to 4% in the future. However, a further cut in utility subsidies will partially offset the increase in wages and pensions, restraining consumption growth. Over the medium term, a resumption of lending will boost private consumption.

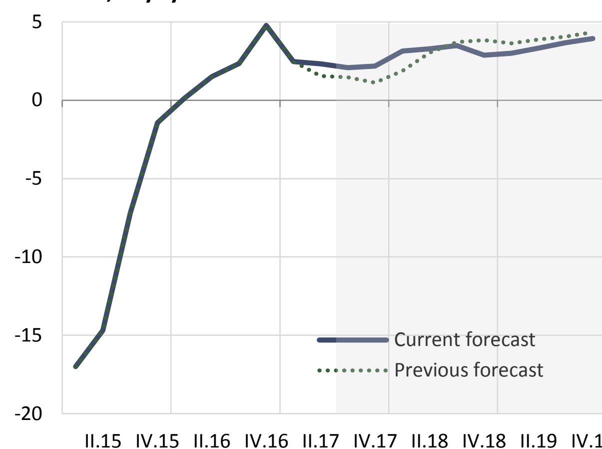
Investment will grow the fastest among GDP components but will slow over the medium term (from 16% in 2017 to approximately 7% in 2019), as wage costs increase and investment gradually covers production needs. As previously expected, investment activity will thrive in the agriculture, mining, and metals industries (as metals companies' financials improve on soaring global steel prices). Investment in construction will rise, driven by the government's policy to renovate road infrastructure.

Capital investment growth will continue to drive investment imports higher, especially machinery and equipment. Households are also expected to create additional demand for imported goods as real disposable incomes grow.

Overall, import volumes will grow 10% this year, partially driven by the need to find substitutes of goods previously supplied from the NGCA.

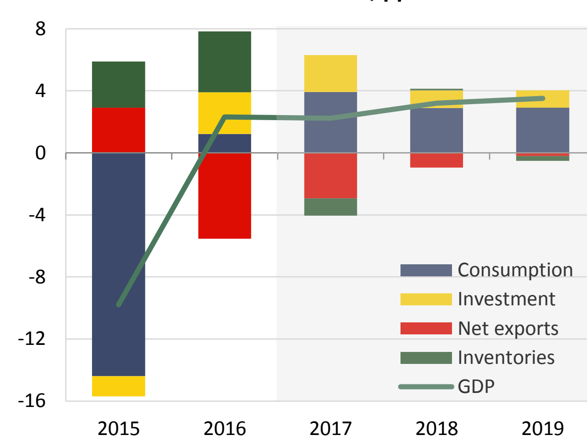
This will mostly affect energy imports, which will grow on a shift towards external coal supplies. Gas import volumes will remain virtually unchanged in 2017–2018, but will start to decline gradually in 2019. Improved energy efficiency and increased domestic production will offset the growth in demand for imported energy resources amid rising industrial production. Further on, energy imports will decline restrained both by the implementation of energy-saving solutions and an increase in the domestic production of primary energy resources.

**Real GDP, % yoy**



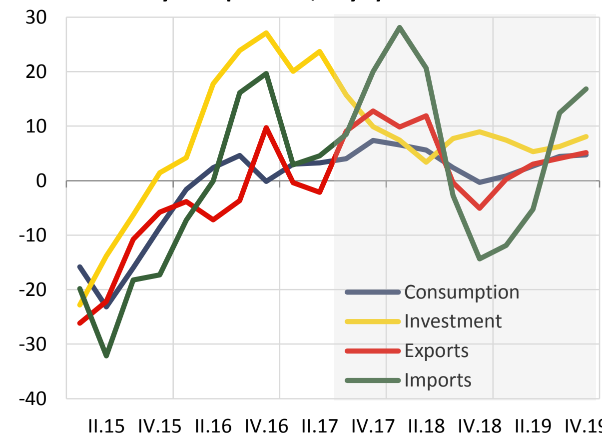

*Source: SSSU, NBU staff estimates*

**Contributions to Real GDP Growth, pp**




*Source: NBU staff estimates*

**GDP Growth by Components, % yoy**




*Source: SSSU, NBU staff estimates*

Export volumes will rise 5.1% in 2017, growing for the first time after five consecutive years of decline. The export recovery will primarily rely on continued growth in agricultural exports due to new market entry and higher global demand for food products. The metals industry facing difficulties related to the suspension of trade and seizure of companies in the NGCA will contribute negatively to the change in real exports this year. However, already in 2018, metals companies should return to previous production levels as they tap alternate sources of raw material supplies. The recovery of metals output will stimulate exports. Over the medium term, a favorable external environment and increased food production will help deliver 3%-4% annual growth in exports.

## Potential GDP and the Cyclical Position of Ukraine's Economy

In Q3 2017, potential GDP will continue to grow in annual terms. The growth rate is projected to accelerate to 3.2% by the end of 2019. An increase in total factor productivity remains the main growth driver, reflecting the convergence of Ukraine's economy towards advanced economies. Total factor productivity will rise on the back of institutional and infrastructural factors. In 2017, potential GDP growth will decelerate due to the suspension of trade with the NGCA. The loss of businesses in the NGCA and the forced reorientation of production chains in areas controlled by Ukraine will limit growth this year. However, potential GDP will return to growth in 2018.

An unfavorable demographic trend, including migration, is causing a contraction in labor supply, which is weighing on potential GDP growth. At the same time, structural labor market imbalances result in a high natural rate of unemployment.

The economy's low capitalization continues to be a drag on growth in 2017. On the other hand, the NBU estimates that fixed capital formation will exceed depreciation in 2018, which will drive the real value of capital upwards.

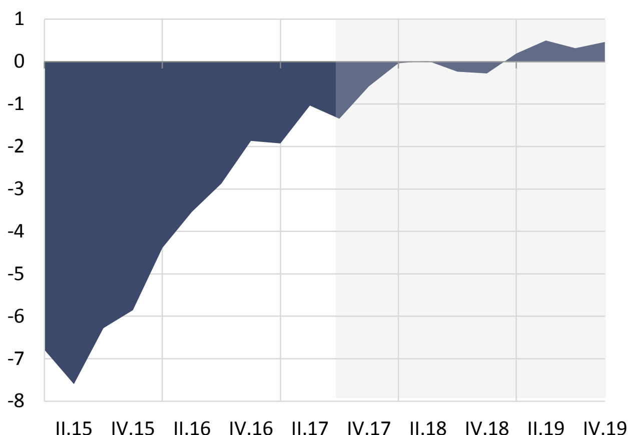
The output gap will remain negative in 2017, but will narrow faster than expected. The output gap is narrowing due to a pickup in consumption and investment demand and will fully close in 2018. Overall, GDP will be close to its potential level in 2018–2019.

As forecasted, **fiscal policy** will vary throughout 2017: relatively tight in H1, turning looser in H2. The strongest fiscal stimulus will take place in Q4 2017. As of the year-end, the structural deficit is expected to exceed last year's level but the total deficit will decline to 1.7% of GDP.

A fiscal easing to boost aggregate demand will mainly be carried out through an increase in pensions, as set out in the adopted pension reform, and by raising capital expenditures using state budget and local government funds. Looking ahead, the government is expected to pursue a reasonably prudent fiscal policy, given the need to keep the general government deficit in-line with Ukraine's commitments to the IMF.

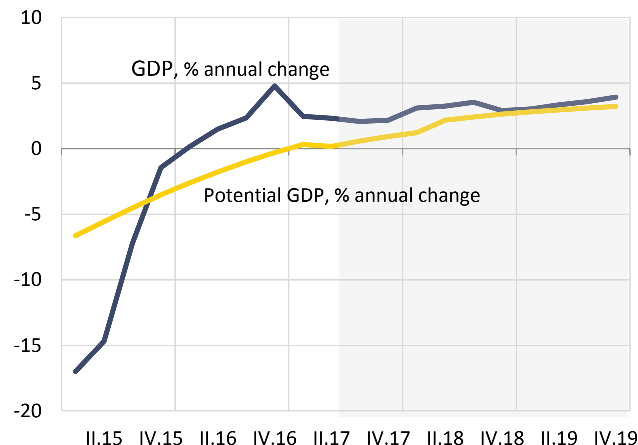
The pension reform will spur private consumption and create additional inflationary pressure, similar to this year's

**GDP Gap, %**



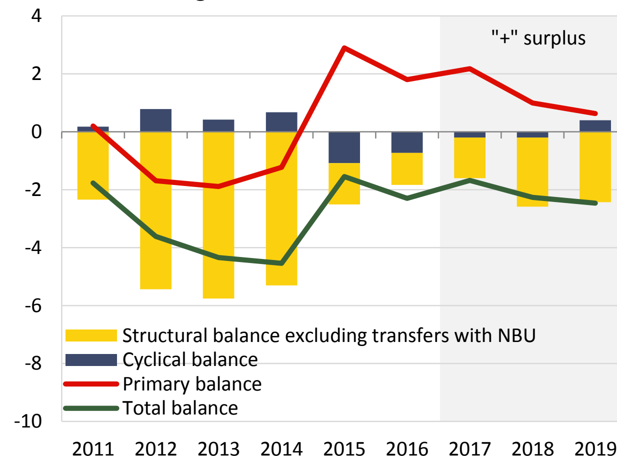

*Source: NBU staff estimates*

**Potential GDP, % yoy**




Source: *SSSU, NBU staff estimates*

**Consolidated Budget, % of GDP**




*Source: NBU staff estimates*

wage hike. However, this effect will be minor as the government must stick to the budget deficit approved with the IMF under the Extended Fund Facility Program. In this situation, higher pension expenditures will be balanced by a decrease in other expenses. At the same time, raising the qualifying period of the pension insurance record will drive the labor market out of the shadows, boosting SSC proceeds and other tax revenues. As a result, the pension reform will have a minor effect on the balances of the consolidated budget and the public sector budget in 2017 and 2018.

The public sector deficit will not exceed 2% of GDP in 2017 and will be below 3% of GDP in 2018–2019. The primary surplus will gradually decrease over the medium term as debt service expenses decline. As expected, this year, consolidated budget revenues will grow much faster than overall inflation. The NBU expects individual income tax revenues to grow fastest. Spending on wages and other social items (such as utility subsidies for households) will increase as well. Capital expenditures may grow to more than 3% of GDP on the back of the government's policy to renovate road infrastructure.

Public and publicly guaranteed debt is projected to drop below 70% of GDP already in 2018. The projections are based on revised forecast assumptions of fewer tranches under the IMF's EFF program. Low exchange rate volatility will be another factor for the debt decrease.

## 3.4. BALANCE OF PAYMENTS

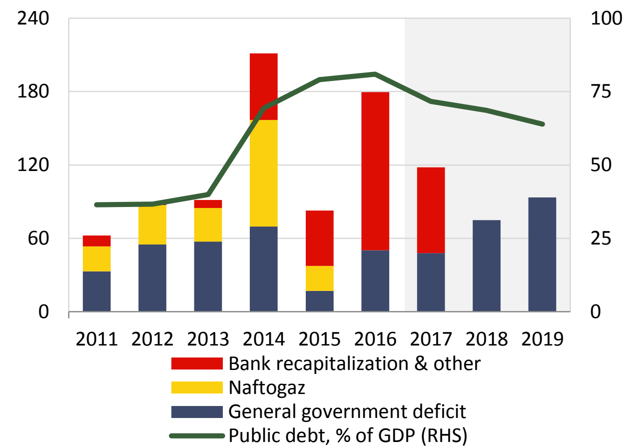
The current account deficit will continue to hover around USD 4 billion in 2017–2019. High investment demand aimed at renewal of fixed assets, primarily by agricultural companies, as well as improved consumer sentiment, will continue to boost imports. Exports and imports will grow at a similar pace, reflecting favorable terms of trade, rising productivity of agricultural companies, and economic growth in Ukraine's main trading partners.

The current account deficit will be entirely offset by financial account inflows, which will enable further growth in international reserves. In 2017, net financial account inflows will be mainly generated by a decrease in FX cash outside banks. However, already in 2018 and 2019 the NBU expects that foreign direct investment in the real sector will rise and debt inflows to the private sector will gradually recover as the investment climate improves. After the government's return to external capital markets in 2017, the NBU expects that the government will continue issuing Eurobonds in 2018 and 2019. This will help refinance a portion of public debt repayments, which will peak in 2019.

As a result, the expected overall balance of payments surplus in 2017-2018, together with IMF financing, will push international reserves up to USD 22.2 billion, or 4.2 months of future imports as of the end of 2018. At the same time, Ukraine's significant repayment of public debt in 2019 will decrease international reserves to USD 21.2 billion, or 3.9 months of future imports as of the end of 2019.

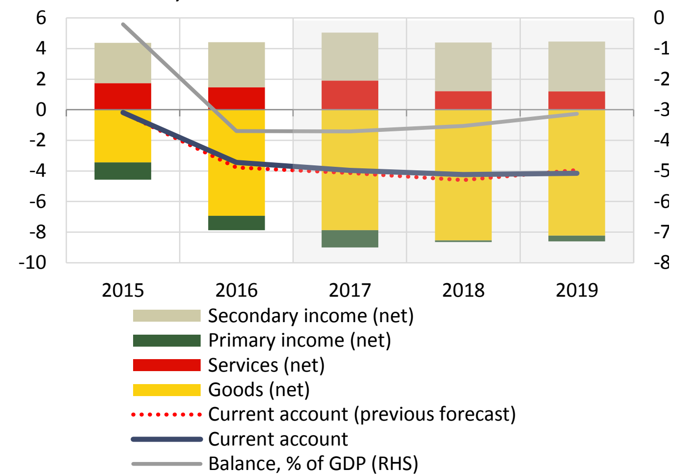
The current account deficit will continue to hover around USD 4 billion in 2017–2019 as exports and imports of goods

**Public Sector Deficit, UAH bn**



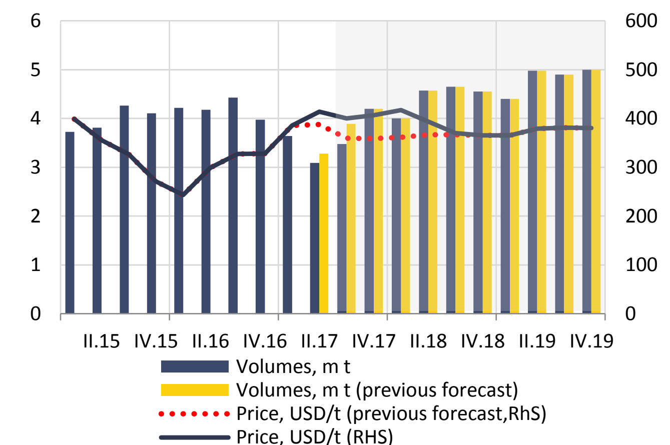

*Source: MFU, SSSU, NBU staff estimates*

**Current Account, USD bn**




*Source: NBU.*

**Ferrous Metals Exports (four main sub-groups)**




*Source: NBU.*

grow at a similar pace. Strong growth in merchandise exports in 2017 (17.4% yoy) will be driven by record high food exports and improved terms of trade, especially in the metals industry. Exports of goods will continue to grow in 2018 and 2019, driven by recovering demand from international commodity markets. Imports of goods will also grow robustly in 2017 (16.7% yoy), thanks to investment demand, mainly from agricultural companies, as well as higher coal imports. Looking ahead, investment demand is expected to remain strong and domestic consumer demand is expected to pick up as real disposable income rise.

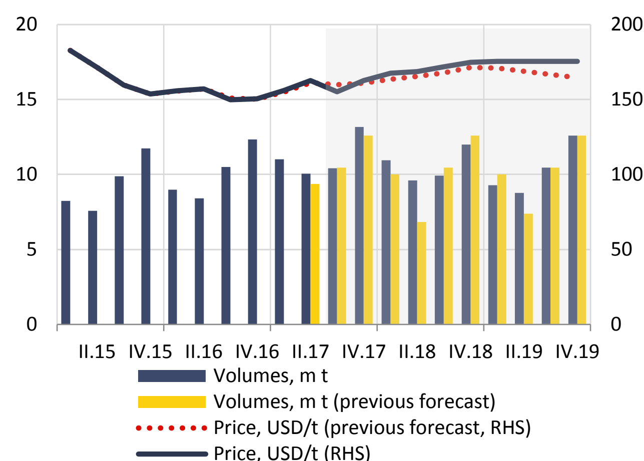
In 2017, the main drivers of export growth will be grain (15.4% yoy) and sunflower oil (15.8%) thanks to bumper harvests of 2016 and 2017. Higher prices and stronger demand from Asia will push up metals exports 15.0% yoy and ore exports 35.5%. In 2018 and 2019, growth will be supported by an increase in food exports to new markets and larger volumes of metals exports once the companies that had been affected by the suspension of trade with the NGCA recover. Chemical exports are also expected to rebound after key fertilizer producers restart operations.

In 2017, the growth of goods imports will be driven by both non-energy (12.2% yoy) and energy imports (35.4%). Non-energy imports will continue to be mostly driven by an increase in machinery imports (26.5% yoy), on robust demand from agricultural enterprises. In addition, imports of food and industrial products are also expected to grow (14.1% and 7.5% yoy, respectively) thanks to an increase in real disposable income. Higher energy prices and growth in coal imports, resulting from the halted trade with the NGCA, will drive the growth in energy imports in 2017. Imports of goods will increase further in 2018 and 2019, reflecting a pick-up in consumer demand on the back of growth in real disposable income and continued strong investment demand. Energy imports will grow further in 2018, driven by increase in prices. In 2019, however, energy imports are expected to fall as the economy’s energy intensity decreases.

In 2017 exports of services are expected to grow at a slightly faster pace than imports of services, reflecting an increase in gas transit and exports of IT services. Imports of services will be driven by higher travel expenses and imports of transportation services due to an increase in the turnover of goods. The growth in imports of services is expected to slightly outperform that of exports in 2018 and 2019, as travel picks up following the introduction of a visa-free regime. Nevertheless, services trade will continue to generate a surplus.

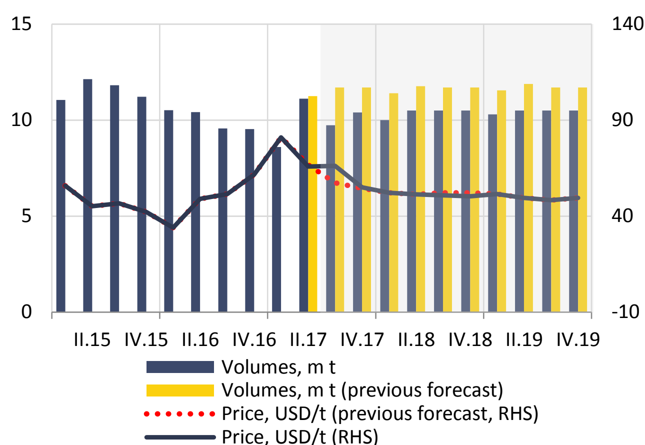
Remittances in Ukraine are expected to rise 14.6% yoy in 2017 as the number of Ukrainian migrant workers in the EU increases on the back of stronger demand for their services and as Poland and the Czech Republic have simplified employment requirements. That trend is expected to continue apace in 2018 and 2019 and boost remittances substantially. In addition, dividend repatriations will grow by an estimated USD 900 million in 2017 from 2016 after the NBU allowed foreign investors to repatriate dividends accrued in 2016. Dividend payments are expected to grow

**Grains Exports**



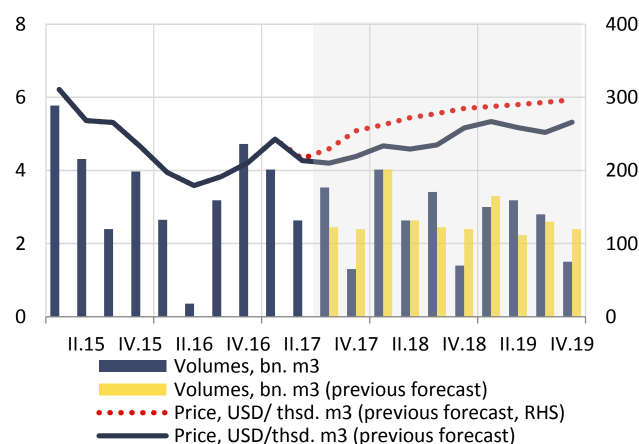

*Source: NBU.*

**Iron Ore Exports**




*Source: NBU.*

**Gas Imports**




*Source: NBU.*

further in 2018 and 2019 as restrictions on capital movements are gradually relaxed. At the same time, interest payments will fall slightly as external public and private debt decreases.

Net financial account inflows are expected to increase in 2017 and 2018 but decrease slightly in 2019 as the government makes large external debt repayments. Looking ahead, an increase in foreign direct investment, mainly to the real sector, and a recovery of debt inflows to the private sector will offset the slower rate of decline in FX cash outside banks.

Foreign direct investment is expected to hit USD 2.1 billion in 2017, of which USD 1.1 billion will be directed to the real sector. Foreign direct investment will increase further in 2018 and 2019 to USD 3 billion as the investment climate improves.

FX cash outside banks are expected to decline at a slower pace in 2017–2019. As real disposable incomes rise, households will rely less on foreign currency savings to maintain consumption levels, which will push down net foreign currency sales.

The private sector's gradual recovery of access to foreign capital markets in 2017 and 2018 will not completely meet the sector's need to service and repay debt. As a result, the rollover rate for long-term external private debt will be below 100% in 2017. However, it is expected to rise gradually to 100% by 2019 (from 72% in 2017). The private sector is expected to be a net borrower from 2019.

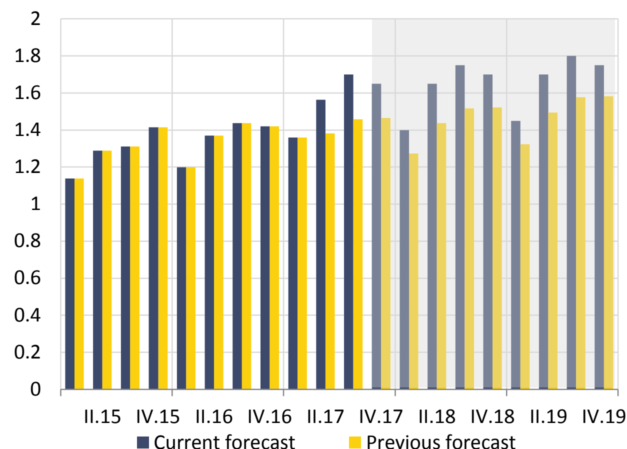
The government's large scheduled payments in 2019 create the need for additional borrowing to maintain the level of international reserves. In 2018, Ukraine expects to receive another IMF tranche of USD 3.5 billion and a USD 500 million loan from the World Bank. Following the successful issue of Eurobonds worth USD 3 billion in 2017, the government expects to continue issuing Eurobonds in the years to come (USD 1.5 billion in 2018 and USD 1.5 billion in 2019).

The surplus of the overall balance of payments expected in 2017 and 2018, together with net inflows of IMF EFF financing, will push international reserves up to USD 22.2 billion, or 4.2 months of future imports by late 2018. That amount corresponds to 70% of the IMF's composite measure for reserve adequacy. In 2019, however, international reserves will decrease to USD 21.2 billion, or 3.9 months of future imports, due to large repayments of government debt.

## 3.5. THE MONETARY SECTOR AND FINANCIAL MARKETS

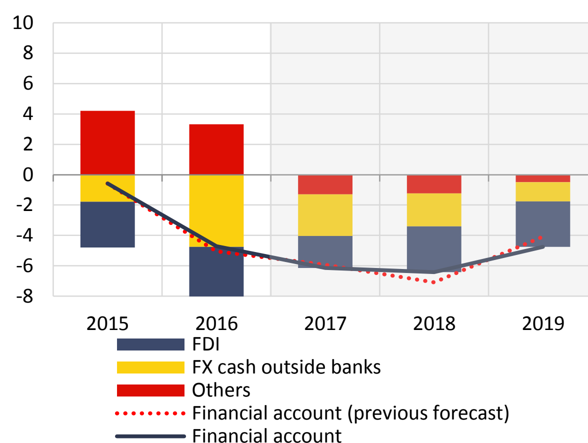
The NBU will pursue a fairly tight monetary policy in Q4 2017, aiming to prevent a further deterioration of inflation expectations and to bring inflation back to the target band. Given the risks that inflation will miss the target next year and that the IMF will delay official financing, the NBU will maintain the key policy rate high until inflation trends

**Private Remittances to Ukraine, USD bn**



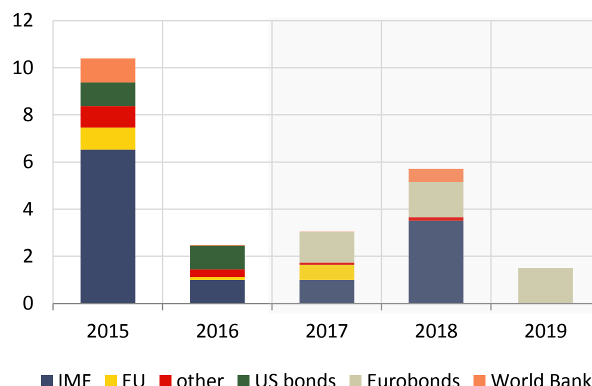

*Source: NBU.*

**Financial Account, USD bn**



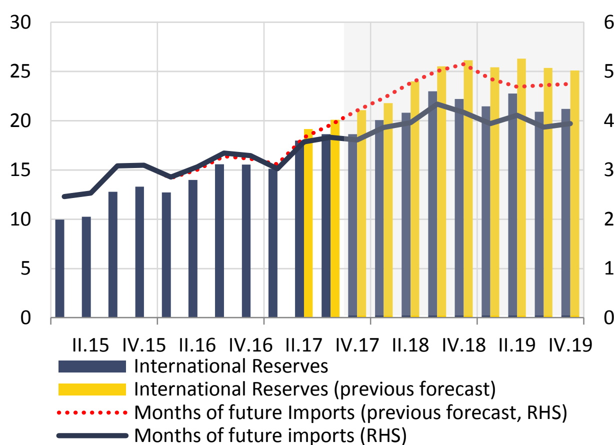

*Source: NBU.*

**Official Financing and Eurobonds Placement, USD bn**




*Source: NBU.*

**International Reserves, USD bn**




*Source: NBU.*

improve and until risks to achieving the inflation target subside.

Annual growth projections for monetary aggregates have been revised downwards to reflect current money market conditions and to match the NBU's tighter monetary policy. Over the next two years, the banking system surplus liquidity will persist, including due to the reprofiling deal.

Tight lending conditions and high nominal interest rates will restrain lending in 2017. Under these conditions, monetary aggregates will grow slower than nominal GDP. Overall, the growth rates of deposits (9% yoy) will outpace cash outside banks (2%) in 2017. The money supply is forecast to grow 7% yoy in 2017. The monetary base is expected to rise about 3% yoy in 2017 owing to a moderate increase in demand for currency in circulation and reserve money.

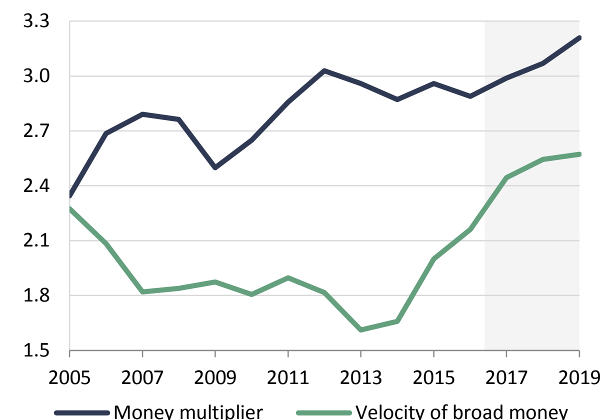
The reprofiling of government securities in the portfolio of NBU that took place in October 2017 impacted the forecast of liquidity in the banking sector. The reprofiling will ease the government's debt burden by about UAH 130 billion between 2017 and 2019, cutting coupon payments by UAH 5 billion. As a result, the banking system is expected to maintain its structural liquidity surplus over the mid-term.

With a liquidity surplus in 2017–2019, the NBU will continue to use certificates of deposit as the main tool for managing interbank interest rates. Liquidity will be mainly injected into the banking system through the transfer by the NBU of its profit to the budget and FX market interventions. Liquidity will be absorbed largely by government repayments of its securities held by the NBU.

In 2018 and 2019, monetary policy will be aimed at bringing inflation back to the target range and keeping it within the target range. The current compromise – between the speed of bringing inflation back to the target range and the degree of monetary policy tightening – is to maintain the key policy rate at a high level to ensure inflation comes back to the target in Q3 2018, and a gradual normalization of monetary conditions to stabilize inflation expectations. If inflation decreases in-line with in the forecast, Ukraine extends its cooperation with the IMF, and the government pursues a prudent fiscal policy, the NBU may return to monetary policy easing cycle at the end of 2018.

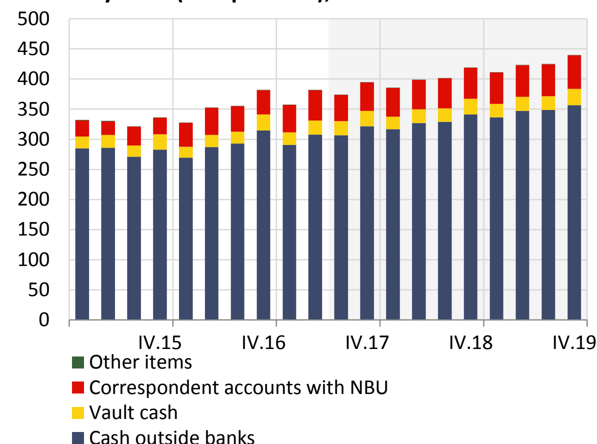
The money supply will increase faster in 2018 and 2019 (9% and 10% yoy, respectively) than the monetary base (6% and 5% in each year). A moderate easing of lending conditions will encourage borrowing activity. Deposit growth will be prompted by a lending recovery, a pick-up in business activity, and growth in real household incomes. However, the money supply will increase at a slower pace than nominal GDP as the NBU will maintain monetary policy tight for longer period. In 2018 and 2019, the growth in deposits (10% and 12% yoy, respectively) will outperform the growth of cash outside banks (6% and 4% in each year). That will be driven by growing share of cashless payments and, consequently, an increase in the multiplier effect.

**Money Multiplier and Money Velocity**



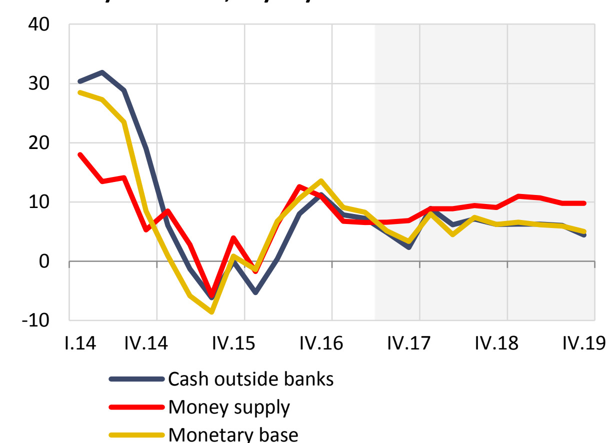

*Source: NBU*

**Monetary Base (Components), UAH bn**




*Source: NBU*

**Monetary Indicators, % y-o-y**




*Source: NBU*

## 3.6. RISKS TO THE FORECAST

The main domestic economic risk relates to the implementation of structural reforms that are necessary to preserve macrofinancial stability and continue working with the IMF under the EFF program, amid large external debt payments in the coming years. The scenario of a long-standing delay in the IMF program would entail a hike in Ukraine's risk premium and restrict access to international financial markets, which would deteriorate foreign exchange and inflation expectations and raise the probability of default on external public debt, most of which falls due in 2019 (read more in the *Sovereign Ukrainian Eurobonds: Regaining Access to Capital Markets* box on page 40). In this case, a loose monetary policy would enhance depreciation pressure on the hryvnia and create additional inflationary pressure, which would pose a substantial risk to the inflation exceeding target band. In reaction, the NBU would be forced to tighten monetary policy and hike the key policy rate.

The situation in eastern Ukraine remains a source of uncertainty. If the situation improves, investment in Ukraine would become more attractive as the risk premium declines, which would foster capital inflows, spur economic growth, and strengthen the hryvnia. Any escalation of hostilities would damage expectations and bring negative social and economic consequences.

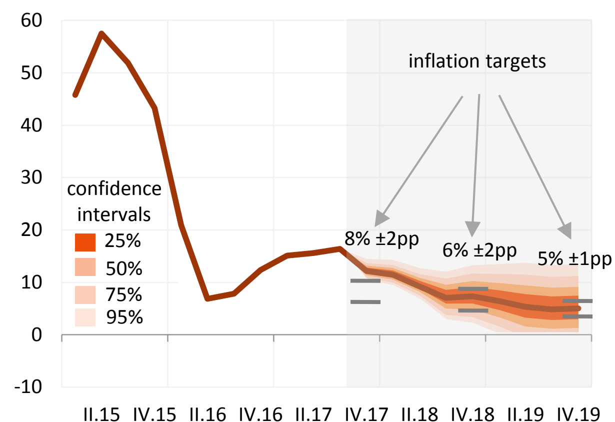
Another source of inflation risk is related to the terms of an increase in administered prices, especially the natural gas price for households. Over the medium term, that could draw inflation away from the projected trajectory in both sides. Food supply shocks related to the harvest, prices, and access to international food markets will impact inflation, although the risk exposure is currently symmetric over the forecast horizon.

In the fiscal sector, faster growth in social spending than in total labor productivity, especially in a pre-election period, would pose the greatest risk to prices. An emphasis on financing current social expenditures may not only accelerate inflation, but also curb government investment and raise debt levels, which would affect economic growth prospects.

Ukraine's external risks are largely related to global commodity prices. If commodity prices fall, Ukraine's export revenues would decrease and in turn affect the current account and heighten hryvnia depreciation pressure. This would pass through on additional inflationary pressure. Weaker effective demand from domestic export-oriented companies would restrain economic activity. In this case, the risks of inflation deviating from the target band would rise and GDP growth would slow down. The NBU would tighten monetary policy to smooth out the adverse impact of external shocks.

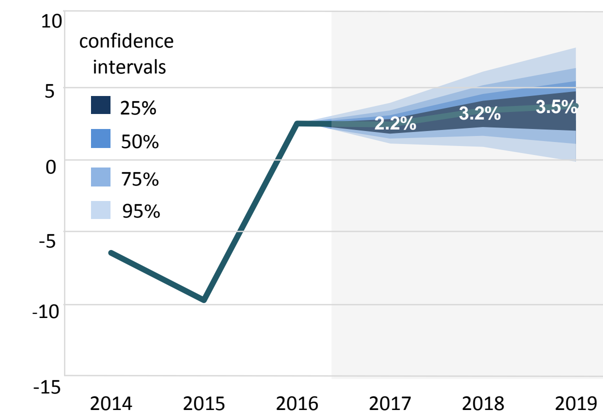
A rise in external demand and global prices for Ukrainian exports would boost GDP growth, strengthen the hryvnia, and decelerate inflation. This scenario would allow the NBU to lower the key policy rate faster than in the baseline scenario.

**CPI Growth Forecast and Targets, % yoy**




*Source: NBU*

**Real GDP Growth, % yoy**




*Source: NBU*

*The forecast is given in a fan chart. This chart type is used to illustrate uncertainty with regard to predicted future values. For instance, the probability that the inflation rate will be in the range of the darkest shaded area in the chart (around the central line) is 25%. The same applies to other chart areas, implying the 95% probability that the inflation rate will be in the range of the lightest shaded area.*

## Macroeconomic forecast (October 2017)

| Indicators | 2013 | 2014 | 2015 | 2016 | 2017 I | 2017 II | 2017 III | 2017 IV | 2017 current forecast | 2017 forecast 07.2017 | 2018 I | 2018 II | 2018 III | 2018 IV | 2018 current forecast | 2018 forecast 07.2017 | 2019 I | 2019 II | 2019 III | 2019 IV | 2019 current forecast | 2019 forecast 07.2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **REAL ECONOMY, % yoy, unless otherwise stated** | | | | | | | | | | | | | | | | | | | | | | |
| **Nominal GDP, UAH bn** | **1465** | **1587** | **1989** | **2383** | 584 | 657 | 804 | 835 | **2880** | 2850 | 668 | 749 | 915 | 936 | **3270** | 3220 | 740 | 830 | 1016 | 1041 | **3628** | 3585 |
| **Real GDP** | **0.0** | **-6.6** | **-9.8** | **2.3** | 2.5 | 2.3 | 2.1 | 2.2 | **2.2** | 1.6 | 3.1 | 3.2 | 3.5 | 2.9 | **3.2** | 3.2 | 3.0 | 3.4 | 3.6 | 3.9 | **3.5** | 4.0 |
| **GDP Deflator** | **4.3** | **15.9** | **38.9** | **17.1** | 25.1 | 20.0 | 14.7 | 13.0 | **18.2** | 17.7 | 11.0 | 10.5 | 9.5 | 9.0 | **10.0** | 9.5 | 7.5 | 7.2 | 7.1 | 7.0 | **7.2** | 7.1 |
| Consumer prices (period average) | -0.3 | 12.1 | 48.7 | 13.9 | - | - | - | - | 14.3 | 12.7 | - | - | - | - | 9.1 | 8.2 | - | - | - | - | 5.8 | 6.0 |
| Producer prices (period average) | -0.1 | 17.1 | 36.0 | 20.5 | - | - | - | - | 25.8 | 25.6 | - | - | - | - | 12.0 | 10.9 | - | - | - | - | 8.7 | 8.8 |
| **Consumer prices** | **0.5** | **24.9** | **43.3** | **12.4** | 15.1 | 15.6 | 16.4 | 12.2 | **12.2** | 9.1 | 11.4 | 8.7 | 6.6 | 7.3 | **7.3** | 6.0 | 6.4 | 5.8 | 5.3 | 5.0 | **5.0** | 5.0 |
| Core inflation | 0.1 | 22.8 | 34.7 | 5.8 | 6.3 | 6.8 | 7.7 | 8.0 | 8.0 | 6.1 | 7.8 | 7.8 | 6.4 | 5.5 | 5.5 | 3.9 | 4.5 | 3.8 | 3.3 | 2.9 | 2.9 | 2.8 |
| Non-core inflation | 0.9 | 26.8 | 50.9 | 18.3 | 26.8 | 27.3 | 27.9 | 17.7 | 17.7 | 13.0 | 16.2 | 9.9 | 6.9 | 9.8 | 9.8 | 8.8 | 9.0 | 8.4 | 8.1 | 7.9 | 7.9 | 8.0 |
| raw foods | -2.3 | 23.2 | 40.7 | 1.2 | 7.5 | 23.6 | 28.2 | 20.2 | 20.2 | 11.8 | 18.4 | 5.8 | 0.9 | 4.2 | 4.2 | 3.6 | 3.2 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| administrative prices | 3.5 | 29.0 | 64.4 | 34.6 | 39.5 | 28.8 | 25.9 | 15.8 | 15.8 | 13.8 | 14.1 | 12.0 | 10.4 | 13.8 | 13.8 | 12.3 | 13.4 | 12.7 | 12.2 | 11.6 | 11.6 | 11.5 |
| **Producer prices** | **1.7** | **31.8** | **25.4** | **35.7** | 38.3 | 26.3 | 22.4 | 13.8 | **13.8** | 12.7 | 10.6 | 14.3 | 11.7 | 9.8 | **9.8** | 9.8 | 8.7 | 8.3 | 8.5 | 8.5 | **8.5** | 8.2 |
| **FISCAL SECTOR** | | | | | | | | | | | | | | | | | | | | | | |
| **Consolidated budget balance, UAH bn** | **-63.6** | **-72.0** | **-30.9** | **-54.8** | - | - | - | - | **-48.4** | -76.4 | - | - | - | - | **-74.1** | -77.4 | - | - | - | - | **-89.4** | -77.8 |
| *% of GDP* | -4.3 | -4.5 | -1.6 | -2.3 | - | - | - | - | -1.7 | -2.7 | - | - | - | - | -2.3 | -2.4 | - | - | - | - | -2.5 | -2.2 |
| **Public sector fiscal balance (IMF methodology), UAH bn** | **-57.5** | **-70.3** | **-17.0** | **-50.3** | - | - | - | - | **-48.0** | -79.4 | - | - | - | - | **-74.8** | -79.2 | - | - | - | - | **-93.5** | -79.5 |
| *% of GDP* | -3.9 | -4.4 | -0.9 | -2.1 | - | - | - | - | -1.7 | -2.8 | - | - | - | - | -2.3 | -2.5 | - | - | - | - | -2.6 | -2.2 |
| General government and Naftogaz financing, UAH bln. | -85.0 | -157.6 | -37.5 | -50.3 | - | - | - | - | -48.0 | -79.4 | - | - | - | - | -74.8 | -79.2 | - | - | - | - | -93.5 | -79.5 |
| *General government and Naftogaz financing, % of GDP* | -5.8 | -9.9 | -1.9 | -2.1 | - | - | - | - | -1.7 | -2.8 | - | - | - | - | -2.3 | -2.5 | - | - | - | - | -2.6 | -2.2 |
| **BALANCE OF PAYMENTS (NBU methodology)** | | | | | | | | | | | | | | | | | | | | | | |
| Current account balance, USD bn | -16.5 | -4.6 | -0.2 | -3.4 | -0.9 | -0.4 | -1.8 | -0.9 | -4.0 | -4.1 | -1.4 | 0.3 | -2.0 | -1.2 | -4.2 | -4.6 | -1.7 | 0.0 | -1.8 | -0.6 | -4.2 | -3.9 |
| Financial account, USD bn | -18.6 | 9.1 | -0.6 | -4.7 | -0.3 | -2.0 | -2.6 | -1.3 | -6.1 | -5.9 | -1.3 | -0.9 | -3.2 | -0.9 | -6.4 | -7.1 | -1.5 | -1.8 | -0.6 | -0.9 | -4.7 | -4.1 |
| **BOP overall balance, USD bn** | **2.0** | **-13.3** | **0.8** | **1.3** | -0.6 | 1.6 | 0.9 | 0.3 | **2.2** | 1.8 | 0.0 | 1.3 | 1.2 | -0.3 | **2.2** | 2.5 | -0.2 | 1.8 | -1.3 | 0.3 | **0.6** | 0.1 |
| **Gross international reserves, USD bn** | **20.4** | **7.5** | **13.3** | **15.5** | 15.1 | 18.0 | 18.6 | 18.6 | **18.6** | 20.0 | 20.1 | 20.8 | 23.0 | 22.2 | **22.2** | 27.1 | 21.5 | 22.8 | 20.9 | 21.2 | **21.2** | 25.7 |
| *Months of future imports* | **3.5** | **1.8** | **3.1** | **3.2** | 3.0 | 3.6 | 3.7 | 3.6 | **3.6** | 4.0 | 3.9 | 4.0 | 4.3 | 4.2 | **4.2** | 5.2 | 3.9 | 4.1 | 3.9 | 3.9 | **3.9** | 4.8 |
| Export of goods, % yoy | -8.3 | -14.5 | -29.9 | -5.3 | 36.2 | 14.8 | 13.5 | 9.4 | 17.4 | 15.1 | -1.1 | 7.9 | 3.9 | 2.6 | 3.3 | 4.0 | -1.3 | 1.3 | 6.8 | 7.4 | 3.7 | 5.6 |
| Import of goods, % yoy | -5.8 | -29.0 | -32.6 | 4.2 | 22.3 | 26.8 | 17.4 | 4.5 | 16.7 | 13.5 | 6.2 | 0.7 | 3.3 | 6.2 | 4.2 | 5.1 | 1.8 | 4.1 | 3.1 | 1.0 | 2.5 | 3.2 |
| **MONETARY ACCOUNTS (Cumulative since the beginning of the year)** | | | | | | | | | | | | | | | | | | | | | | |
| Monetary base, % | **20.3** | **8.5** | **0.8** | **13.6** | -6.5 | 0.0 | -2.1 | 3.3 | **3.3** | 6.4 | -2.2 | 1.1 | 1.8 | 6.2 | **6.2** | 7.8 | -1.9 | 1.1 | 1.6 | 5.0 | **5.0** | 6.0 |
| Broad money, % | **17.6** | **5.3** | **3.9** | **10.9** | -2.5 | 0.1 | 1.9 | 6.8 | **6.8** | 9.0 | -0.7 | 1.9 | 4.3 | 9.1 | **9.1** | 13.5 | 1.0 | 3.4 | 5.0 | 9.8 | **9.8** | 12.6 |
| Velocity of broad money (end of year) | **1.61** | **1.66** | **2.0** | **2.2** | - | - | - | - | **2.4** | 2.4 | - | - | - | - | **2.5** | 2.4 | - | - | - | - | **2.6** | 2.3 |