NATIONAL
BANK
OF UKRAINE

INFLATION REPORT

January 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 January 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 January 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. 373 of 26 January 2017 *On the Approval of the Inflation Report.*

CONTENTS

ABBREVIATIONS AND ACRONYMS

ATO	**A**nti-**T**errorist **O**peration
BoP	**B**alance **o**f **P**ayments
BPM5 **BPM6**	IMF **B**alance of **P**ayments **M**anual (**5**th edition) IMF **B**alance of **P**ayments And International Investment Position **M**anual (**6**th edition)
CDs	**C**ertificate of **D**eposit(s)
CIS	**C**ommonwealth of **I**ndependent **S**tates
Core CPI	**C**ore **C**onsumer **P**rice **I**ndex
CPI	**C**onsumer **P**rice **I**ndex
DGF	**D**eposit **G**uarantee **F**und
ECB	**E**uropean **C**entral **B**ank
EFF	**E**xtended **F**und **F**acility
EU	**E**uropean **U**nion
FAO	**F**ood and **A**griculture **O**rganization
Fed	**F**ederal **R**eserve **S**ystem
GDP	**G**ross **D**omestic **P**roduct
GVA	**G**ross **V**alue **A**dded
IIF	**I**nstitute of **I**nternational **F**inance
IKSO	**I**ndex of **K**ey **S**ectors **O**utput
ILO	**I**nternational **L**abour **O**rganization
IOM	**I**nternational **O**rganization for **M**igration
IMF	**I**nternational **M**onetary **F**und
MFU	**M**inistry of **F**inance of **U**kraine
MSCI	**M**organ **S**tanley **C**apital **I**nternational
MTP	**M**ain **T**rading **P**artner
NBU	**N**ational **B**ank of **U**kraine
NEER	**N**ominal **E**ffective **E**xchange **R**ate
OPEC	**O**rganization of the **P**etroleum **E**xporting **C**ountries
PPI	**P**roducer **P**rice **I**ndex
REER	**R**eal **E**ffective **E**xchange **R**ate
RF	**R**ussian **F**ederation
SESU	**S**tate **E**mployment **S**ervice of **U**kraine
SFSU	**S**tate **F**iscal **S**ervice of **U**kraine
SSSU	**S**tate **S**tatistics **S**ervice of **U**kraine
SSC	**S**ocial **S**ecurity **C**ontribution
Treasury	**S**tate **T**reasury **S**ervice of **U**kraine
USA	**U**nited **S**tates of **A**merica
VAT	**V**alue-**A**dded **T**ax
VRU	**V**erkhovna **R**ada of **U**kraine
WTO	**W**orld **T**rade **O**rganization
OECD	**O**rganisation for **E**conomic **C**o-operation and **D**evelopment
bn	billion
mn	million
UAH	Ukrainian hryvnia
EUR	euro
USD	US dollar
RUB	Russian ruble
pp	percentage points
bp	basis points
M0	cash outside banks
M3	Broad money
USD/bbl	US dollars per barrel
USD/MT	US dollars per metric ton
USD per EUR	exchange rate of euro to US dollar
UAH per USD	exchange rate of Ukrainian hryvnia to US dollar
RUB per USD	exchange rate of Russian ruble to US dollar
yoy	year-over-year, compared to the same time period in the previous year
mom	month-over-month, compared to the previous month
qoq	quarter-over-quarter, compared to the previous quarter
ytd	year to date, since the beginning of the year
pa	per annum
sa	Seasonally adjusted
LT	Long-term

1. SUMMARY

In 2016, the NBU reached inflation target

Consumer prices went up by 12.4% in 2016. The rapid slowdown in headline inflation (from 43.3% in 2015) was in line with NBU forecasts published in Inflation Reports over the past year, envisaging a 12% increase of consumer prices. Thus, the NBU met the 2016 **inflation target** of 12%±3 pp, set out in the Monetary Policy Guidelines for 2016-2020.

The rapid inflation slowdown in 2016 was, primarily, driven by subsiding underlying inflation pressure. This was evidenced by a sharp decline in **core inflation** (to 5.8% yoy) facilitated by appropriately tight monetary and fiscal policies. Strengthening of the role of the key policy rate and its reduction in a sustainable manner throughout the year, and the government's effort to meet fiscal deficit targets contributed to a substantial improvement in inflation and exchange rate expectations, over the first three quarters the year especially.

The slowdown in inflation was also underpinned by moderate hryvnia exchange rate volatility observed throughout most of the year, among other things, owing to NBU measures to smooth the excessive volatility in the interbank FX market. At the end of 2016, **the external price environment** for Ukrainian exporters improved due to increased prices for steel, iron ore, sunflower oil and fertilizers, as well as stabilized grain prices. High crops and oil production contributed to export revenue growth. However, throughout Q4 2016, despite overall favorable underlying external and internal factors, the hryvnia faced periodic increases in depreciation pressure that intensified in late 2016 and early 2017. The heightening of depreciation pressure was the result of a number of factors, typical for the end of the year. They included an increase in corporates' external debt repayments and significant budget expenditures in December. Psychological factor associated with the transfer of CB PrivatBank PJSC to state ownership also played a significant role.

The raw food supply-side factors, such as large crops, export restrictions, and higher supply of imported fruit and vegetables, had a significant impact on easing inflationary pressures. Meanwhile, headline inflation was driven by further increase in administered tariffs, primarily those for public utilities, as well as a rebound in global oil prices transmitting into higher domestic fuel prices.

A gradual pick-up in economic activity and the improved business expectations contributed to the recovery of labor demand during the course of 2016. The rapid disinflation supported real wages and real disposable income rising at a relatively high pace. However, **the unemployment rate** remained rather high amid labor demand and supply mismatches. As a result, demand-pull price pressure remained subdued.

In 2016, **fiscal policy** remained relatively tight and aimed to ensure the sustainability of public finances, despite increases in subsidies and the necessary support to the Pension Fund after the reduction in social security contributions (SSC). The gradual improvement in macroeconomic conditions and tax amendments underpinned a rather high pace of the budget revenue growth. In 2016, expenditures were, in general, more evenly spread throughout the year than in 2015. However, in December 2016, the general government budget deficit traditionally widened. At the same time, for the year as a whole, Ukraine maintained a primary surplus and a moderate consolidated budget deficit.

In 2017, disinflation will proceed at a slower pace due to effects of a minimum wage increase

The NBU revised the inflation forecast upwards to 9.1% for 2017, mainly due to a twofold increase in the minimum wage. The projection for 2018 remained unchanged at 6.0%. Headline inflation is forecast to remain **within the announced target bands for** both years (8% ± 2 pp for 2017 and 6% ± 2 pp 2018).

In 2017, core inflation and raw food inflation will pick up (to 6.3% yoy and 7.0% yoy, respectively), driven by the continued recovery of domestic demand, including due to the minimum wage increase, and fading out raw food supply effects that helped restrain the price increases in 2016.

The slowdown of administered inflation will become a key factor behind a continued disinflation trend. However, this will be reflected in annual CPI growth, in Q4 only. Meanwhile, during Q1-Q3, annual headline inflation will remain in the double digits.

In 2018, inflation will continue to slow down and return to the midpoint of the target band. Carrying out prudent monetary and fiscal policies will serve as key factors of easing inflationary pressures. Meanwhile, core inflation will stabilize at around 5% amid low exchange rate volatility and improving inflation expectations. Past adjustments of certain utility tariffs to their cost recovery levels is an essential factor contributing to the reduction of the overall consumer inflation.

In 2016, high investment demand played a pivotal role in Ukraine's economic development

In Q3 2016, **real GDP growth** accelerated to 2.0% yoy. As expected, domestic investment demand was the major driver of such acceleration amid better financial results, improved business expectations, as well as increases in the consolidated budget capital expenditures. Households' consumption also picked up, propelled by both an increase in income and a further use of past savings. In Q4, real GDP growth gained momentum. Agriculture was the main driver of the acceleration owing to bountiful late crop production. As a result, real GDP growth estimate for 2016 was revised upwards to 1.8% yoy.

In Q4 2016, the **current account deficit** narrowed to USD 0.7 bn due to a significant reduction in primary income payments, while merchandise trade deficit remained unchanged at the Q3 level. Exports of goods increased helped by expanding food exports and imports accelerated too due to higher energy imports. In 2016 as a whole, the current account deficit widened to USD 3.4 bn, or 3.6% of estimated GDP[2], primarily due to stronger demand for imported investment and consumer goods.

In Q4 2016, **financial account** net inflows declined to USD 1.0 bn, mainly due to a slower decline in FX cash outside banks. However, a significant reduction in FX cash outside banks was the principal contributor to the financial account recording net inflows of USD 4.6 bn in 2016. The overall balance of payments reported a surplus of USD 0.4 bn in Q4 and USD 1.3 bn for 2016 as a whole. Along with the third tranche disbursement under the IMF EFF program, this allowed to replenish **international reserves** to USD 15.5 bn by the end of the year (sufficient to cover 3.4 months of future imports).

Ukraine's economic growth will accelerate

In 2017, exports will resume growth amid improving terms of trade, high harvests in the previous year, and assuming the absence of transportation constraints both inside the country and through the territory of Russia. In its turn, a rise in export earnings will allow export-oriented enterprises to continue increasing their investments at a relatively high pace. Stronger consumer demand, driven by a minimum wage increase, will also stimulate economic activity.

Meanwhile, under the still low pace of potential economic growth and slow import substitution processes, growth in domestic demand will be to a notable extent met by imports. As the minimum wage increase will heighten inflationary pressures, the monetary policy easing is projected to proceed at a slower pace so that real interest rates will remain relatively high to keep savings in domestic currency attractive. As a result, real GDP growth is expected to accelerate only marginally - to 2.8% yoy in 2017 and 3.0% yoy in 2018, respectively.

Aggregate demand will continue to subdue consumer inflation over the forecast horizon; however, its impact will weaken significantly compared with the previous years (and the previous forecast too). The negative output gap is expected to persist over the forecast horizon. A rise in households' incomes will strengthen the role of private consumption in real GDP growth over the forecast horizon. Instead, the contribution of net exports will remain negative.

However, in 2017-2018, the current account deficit will remain nearly flat while improved terms of trade in global commodity markets will be offset by further recovery of demand for imported consumer and investment goods amid higher households' incomes and mild appreciation of the hryvnia REER.

In 2017, the financial account net inflows (USD 4.6 bn) will be backed by renewed debt inflows to the private sector. In 2018, the ability of the private sector to raise debt capital and attract FDIs will improve amid a better investment climate and accelerating economic growth.

The key assumption of this forecast is further cooperation with the IMF, which remains an important source of replenishing the country's international reserves, facilitates access to other IFI financing, and serves as an indicator of progress in structural reforms and, hence, investment attractiveness of the country. Along with an overall balance of payments surplus, disbursements of planned tranches under the EFF program with the IMF will enable the country to increase **international reserves** to USD 27.1 bn by the end of 2018 (or 5.3 months of future imports). Further accumulation of reserves remains an important task for the NBU and the Ukrainian authirities in general, given large external public debt repayments coming due since 2019.

Fiscal policy in 2017 will become more accommodative and aimed at stimulating private consumption, primarily due to the decision to raise the minimum wage. Overall, however, the general government fiscal deficit will remain within 3% of GDP. An increase in SSC proceeds will allow reducing budget support of the Pension Fund, while higher budget expenditures on compensations of public sector employees will be compensated for by higher revenues from taxes on consumption and a rise in excise tax rates. The primary consolidated budget surplus will stay at a level of at least 1% of GDP.

Quasi-fiscal financing risks have declined significantly after the recapitalization of CB PrivatBank PJSC with public funds in late 2016 and given the sustainable financial stance of Naftogaz of Ukraine PJSC.

Monetary policy easing will slow down to achieve inflation targets

In 2016, given a steady decline in inflationary pressure and a reduction of risks to price stability, the NBU consistently and rather actively eased its monetary policy – **the key policy rate** was reduced six times from 22% down to 14%. The

[2] Here, and in the rest of the document, for the calculation of the respective ratios to GDP, NBU nominal GDP estimates for 2016 and forecasts for 2017 were used.

rate cuts were gradually transmitting into the respective developments of short-term **interest rates** in the interbank market, government bonds yields, and retail interest rates. However, overall real interest rates remained relatively high, which fostered a continued inflow of deposits to the banking system, especially those in domestic currency. **Lending activity** remained weak, which reflected mainly still elevated risks and high debt burden of corporate enterprises.

In the baseline scenario, in response to heightened inflation risks and a slowdown in the improvement of inflation expectations, the NBU will have to adopt a more gradual approach to monetary policy easing in 2017. Monetary conditions will remain relatively tight to ensure further disinflation according to the approved inflation targets: 8% ± 2 pp by end of 2017 and 6% ± 2 pp by end of 2018.

Balance of risks to inflation is symmetrical on the forecast horizon

The balance of risks for the annual inflation forecast is symmetrical, but the impact of potential risks will vary for different domestic and external conditions.

Specifically, for the domestic environment there is significant uncertainty about further macroeconomic policy framework and implementation of structural reforms necessary to preserve macrofinancial stability, increase the economy's potential, and continue IMF program. This particularly refers to the fiscal commitments and non-debt sources of deficit financing (i.e., privatization proceeds). Thus, the impact of the minimum wage increase may differ from that underlying the baseline scenario with the corresponding implications for the budget deficit, consumer demand, and inflation. Furthermore, there exists the risk that fiscal policy will continue shifting its focus on current consumption. On one hand, public investments are likely to be crowed out, and further reduction of the debt burden will be under the risk. On the other hand, this will weigh on Ukraine's competitiveness with the corresponding worsening of domestic and foreign agents' perceptions about hryvnia exchange rate outlook. Additional uncertainty is associated with changes in administered tariffs.

On the external front, uncertainties are concentrated around the policies of newly elected U.S. President D. Trump. More aggressive fiscal stimuli in the U.S. may buoy demand for commodities in global markets. For Ukraine, this will be reflected in extra export revenues and hryvnia exchange rate developments, direct effects on consumer inflation through global commodity and imported prices. Meanwhile, the likely Fed's sharper response to larger fiscal impulses will lead to tighter financial conditions for emerging countries. For Ukraine, given its limited access to foreign capital markets, the direct effect will be minimal. However, an indirect effect could be substantial due to further depreciation and demand contraction from major trade partner countries, particularly those vulnerable to the changes in capital flows (e.g., Turkey).

The materialization of the above-mentioned and other risks during the forecast horizon may cause actual inflation to deviate from the target trajectory and prompt the NBU's corresponding response.

2. CURRENT ECONOMIC SITUATION

2.1. EXTERNAL ENVIRONMENT

In Q3, external demand, expressed as the weighted average of annual GDP growth rates of Ukraine's MTP countries, weakened amid economic decline in Turkey and slowdown in CEE countries. Meanwhile, the euro area, China, the USA and India showed stable growth. The available data suggest, that economic performance improved in some of the MTP countries already in Q4 2016.

At the end of Q4 Ukrainian exporters saw an improved price environment amid higher prices for steel, iron ore, sunflower oil, and fertilizers. Grain prices, despite record harvests, have stabilized after rising marginally in early 2017 due to the effect of temporary supply-side factors.

Oil prices traded in the range of USD/bbl 47 - 52 in October and November, influenced mainly by changes in the US oil inventories and expectations regarding the OPEC agreement. The agreement among OPEC and other leading manufacturers in late November sent prices soaring to 55 USD/bbl. However, the existing glut in the market restrained further price increases.

In Q4, global financial markets were influenced by expectations with regard to the monetary policy decisions of major central banks, the Fed and the ECB included, results of the central bank meetings and the US presidential elections. Accordingly, the first half of Q4 2016 saw a weaker performance of major global equity markets. Meanwhile, the EM stock index avoided a slump, buoyed by expectations of a gradual rise in commodity prices.

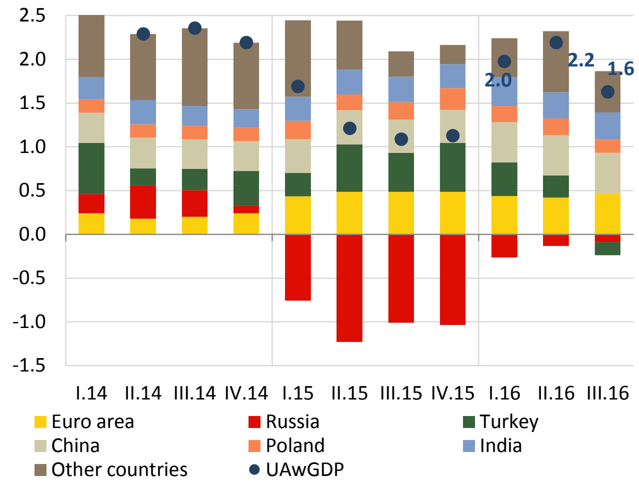
In the second half of Q1, the financial market conditions improved significantly in developed countries against the backdrop of optimism for accelerating U.S. economic growth boosted by fiscal stimuli. This led to a strengthening of the US dollar and a steep rise in interest rates on government securities. As a result, emerging market financial assets experienced outflows, and this group of countries saw their currencies depreciate, excluding the currencies of OPEC countries.

The weighted average of GDP growth rates in Ukraine's MTP countries (as expressed by the UAwGDP index) decreased qoq in Q3 2016, despite rapid economic growth in the euro area, and China, as well as the acceleration of the US and Indian economies. The decrease is attributable to a downturn in Turkey and a slowdown in economic growth in CEE countries.

The US GDP growth accelerated to 1.7% yoy following a decline in the first half of Q3 2016. Economic growth was driven by consumption, exports, and stocks. Consumer spending rebounded against the backdrop of improved labor market performance (the unemployment rate fell in November to 4.6% yoy) and consumer sentiment.

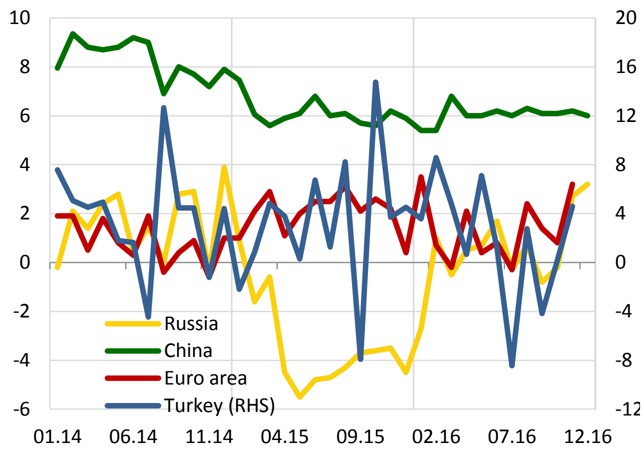
Euro area's economy maintained sustained growth supported by the ECB's quantitative easing policy (in spite of the poor inflation record) and increased demand for

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

European products, primarily, from commodity dependent countries.

Economic growth accelerated in the CIS countries (except for Belarus, where real GDP has been declining for the second consecutive year due to reduced oil deliveries to the refineries by Russia). Russia's economic decline slowed (to 0.4% yoy in Q3 2016) thanks to manufacturing growth and recovery in oil and gas production.

The CEE countries included in the index grew at a slower pace due to the instability in financial markets and a significant reduction in investments, primarily, in the construction industry.

Despite further economic transformation, the growth rate of China's economy has remained unchanged for three quarters in a row - at 6.7% yoy in Q3. Such economic performance is attributable to the economic incentive package (primarily, investment into infrastructure projects) against the backdrop of a tight regulation by the central bank (including conditions of credit granting). This, in its turn, stimulated domestic demand growth.

For the first time since 2009 real GDP in Turkey declined (by 1.8% yoy in Q3) due to a significant reduction in domestic demand and exports of goods and services, as well as a decrease in gross fixed capital formation against the backdrop of political instability and the Turkish lira depreciation.

By contrast, in early Q4 2016 economic growth in some of Ukraine's MTPs strengthened. In particular, due to the recovery in the retail and steel industries, China's economy gave an additional impetus to other Asian countries. Due to the rising manufacturing output and a recovery in oil and gas production, Russia's economy may return to growth in Q4 2016. Industrial production in the euro area increased gradually, as the industrial sector in major countries returned to growth (Germany and France), driven by expansion in foreign trade.

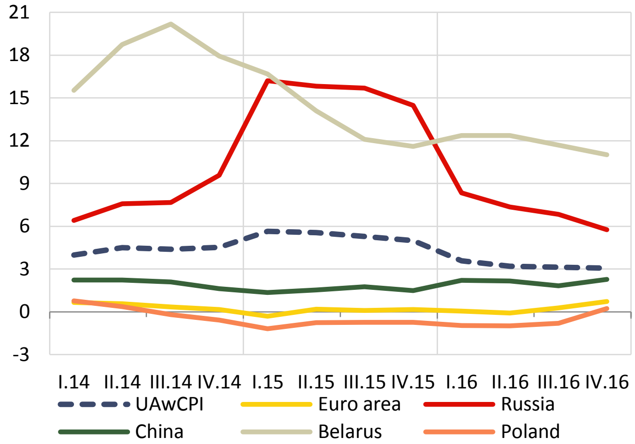
Inflation in the MTPs of Ukraine expressed as the UAwCPI[3] index remained virtually stable for the third consecutive quarter. Thus, in annual terms, average consumer inflation in Ukraine's MTPCs stood at 3%. The inflation rates continued to converge:

- high inflation developing economies saw the annual CPI inflation rate slowing down (primarily, in Russia);

- low-inflation economies (the EU countries) witnessed a reflation (a relapse of inflation following a period of deflation).

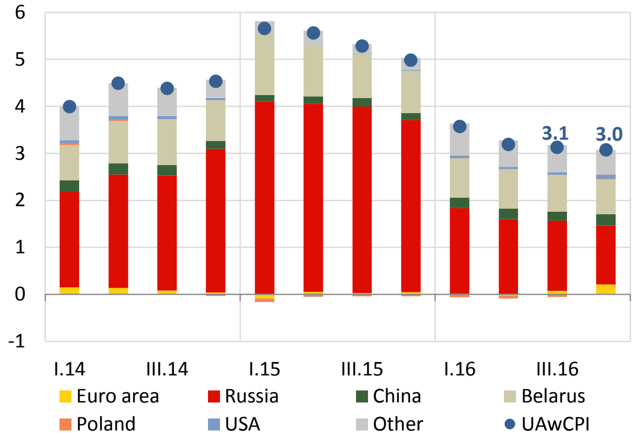
The global price environment for Ukrainian exporters in Q4 improved significantly, as expected. The Ukrainian External Commodity Price Index (ECPI) grew by 4.1% qoq (8.8% yoy) in Q4. Prices for steel, iron ore, sunflower oil, and fertilizers account for the major contribution to the increase in the index. Grain prices showed signs of stabilization, albeit at a low level.

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



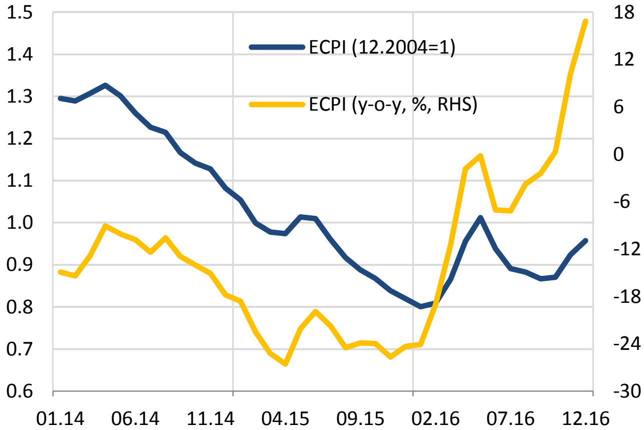
Source: NBU staff estimates (preliminary data)

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



Source: NBU staff estimates (preliminary data)

External Commodity Price Index (ECPI)



Source: NBU staff estimates

[3] UAwCPI - the inflation index of the main trading partner countries – of Ukraine weighted by imports of Ukraine's goods and services from the respective countries

Since the beginning of Q4 2016, prices for steel products across world regions grew mainly due to input costs, primarily coking coal and iron ore. By mid-December, prices for steel products continued to grow, reaching a two-year high.

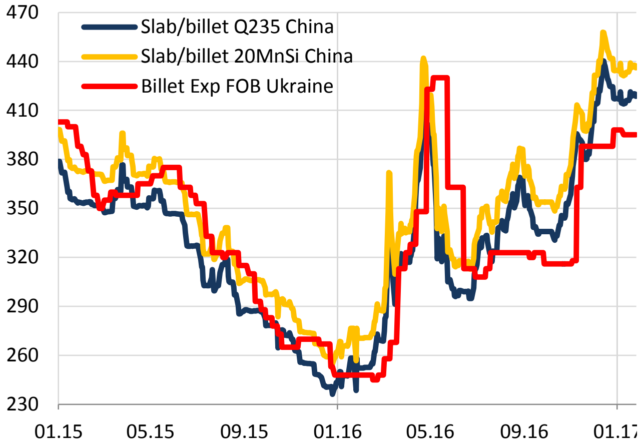
The rapid rise in prices for coke was driven by a reduction in supply due to the closure of Chinese mines under the framework of the state policy on liquidation of excess capacities, flooding in coal-mining areas of China, and reduced production/exports in Australia and North America. As a result, prices for coke hit their highest level since 2013. Prices for iron ore grew due to the rapidly rising demand and the Yuan depreciation.[4] Demand for high-quality ore increased in line with coke price increases as, with the higher iron content in the ore, steelmakers require less coke. The increased domestic production of steel tightened iron ore supplies from Brazil.

Simultaneously, there was a significant pick-up in demand in the steel market due to a rebound in economic activity, particularly in Europe, India, Turkey and China. In China, demand skyrocketed, as consumers were eager to draw up contracts before steel production prices rose further. Additionally, domestic consumption in China rose as large public companies expanded investment into sizable infrastructure projects and the real estate sector showed an upturn.

Other drivers for the price of steel were: anti-dumping restrictions, depreciation of domestic currencies (amid US Dollar strengthening), and Chinese authorities' intentions to limit steel production and enhance the environmental control. Moreover, increased price volatility suggest that prices for iron ore and steel contain the speculative component. Speculative transactions were fueled by expectations of further reduction in steel capacities by China.

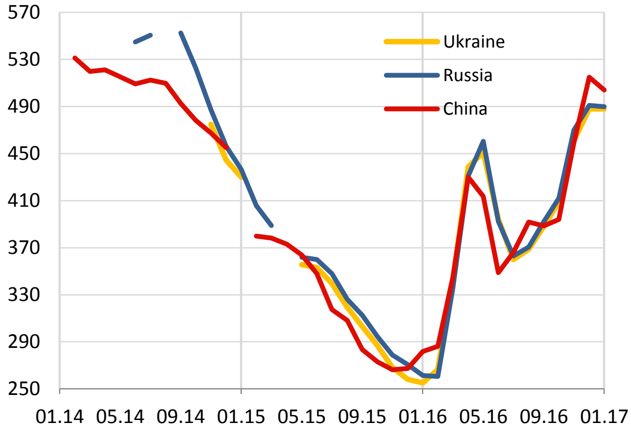
Also, in the second half of December 2016, prices underwent mild adjustments against the background of a typical end-of-year slowdown in business activity.

Semi-Finished Steel Prices in China and Ukraine, USD/MT, as of 25.01.2017



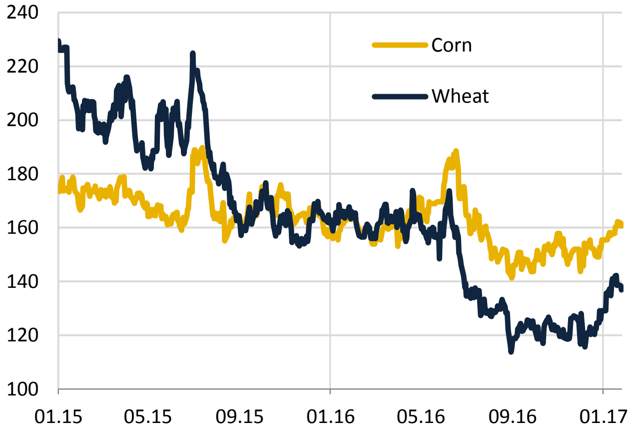
Source: Thomson Reuters Datastream

HRC Export Prices, USD/MT



Source: Metal Expert

World Cereal Prices*, USD/MT, as of 25.01.2017



**Corn - Corn Yellow #2 Delivery USA Gulf*
Wheat - Wheat K C Hard (HRW) National
Source: Thomson Reuters Datastream

[4] Given large amount of base money in China and limited investment opportunities in the country the investors bought assets tied to the US dollar, including iron and steel ore.

Production of iron ore in the world and major determinants of prices

Approximately 98% of globally produced iron ore is used to manufacture cast iron, which serves as in the input for steel production. Therefore, the demand for iron ore is determined primarily by the demand for steel. **Major factors affecting iron ore prices include:**

– **The price for coke as a raw material,** widely used for ore preparation and its separation from harmful impurities (particularly sulfur);
– **Global demand for iron ore, on the part of China especially.** In 2015, world consumption of ore amounted to almost 1.9 bn tons, while China accounted for about 40% of global demand[5] (65.1% of which is the import share) due to large volumes of steel production;
– **The high level of consolidation (monopolization) of iron ore supply**. The so-called 'big three' [BHP Billiton (Australia), Rio Tinto (Australia) and Vale (Brazil)] accounted for about 70% of the world trade in iron ore, which affects price setting. Thus, in H1 2016, the 'big three' collectively reduced the volume of ore extraction by 70 million tons that, against the background of increased demand for steel from China, caused prices to accelerate in H2 2016;
– **Force majeure circumstances related mainly to weather conditions** (for instance, recurrent closures of ports, including the closure of Headland Port, the largest one in Australia, due to tropical cyclones, or mining companies in Brazil due to heavy rains, etc.).

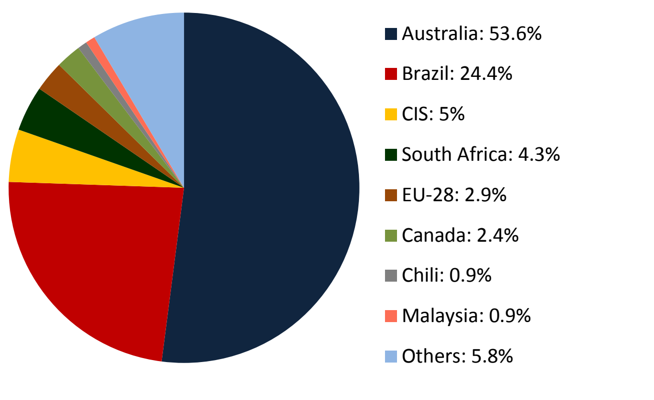
In 2016, iron ore prices rose sharply under the influence of the following additional factors:

– Chinese authorities' **intention to reduce the reliance on imports** (reaching 70% of domestic demand for iron ore in 2015) **against the backdrop of a declining steel production.** To reduce the dependency of the country from imports, China has implemented the following strategies:

- Accumulation of large reserves of iron ore in ports and factories. Iron ore inventories in Chinese ports rose to the highest level in the past two years (over the first nine months of 2016, reserves grew by 15%);
- Increased investments, especially public investments into the purchase and development of iron ore deposits in iron ore-rich regions, including those abroad. In H1 2016, Chinese companies and funds acquired foreign mining assets (mainly, in Africa and Latin America) in the amount of approximately of USD 4.5 bn;
- Reduced excess steel and coal capacities against the backdrop of a decline in domestic demand for steel. Since the beginning of 2016 till the end of October 2016, China reduced the steel production capacity by 45 million tons and coal production by 250 million tons. For the purpose of rationalization, in early December 2016, a new metallurgy giant (Baowu Steel Group) was created through uniting several companies. After ArcelorMittal, this will be the world's second largest steel company (with production capacity of 60 million tons). In addition, the China Banking Regulatory Commission (CBRC) prohibited the country's banks from issuing loans to coal and steel companies that violated the targets for reduced capacities. In 2017, China's demand for steel is expected to decline by 1.5%;[6]

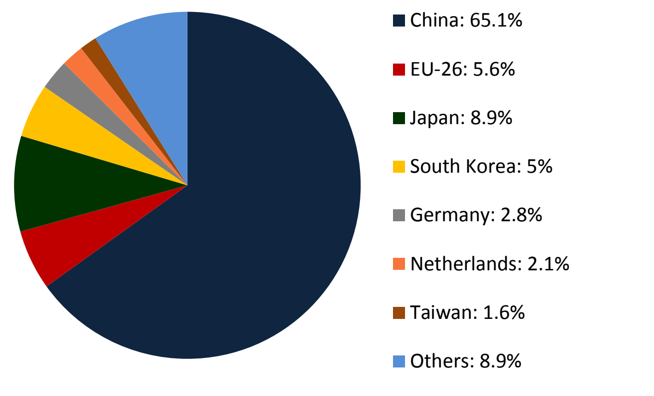
– **Delayed new iron ore mining projects take off:**
- BHP Billiton iron ore mining in Western Australia due to the ruining effect of tropical cyclones;
- Termination by Vale SA of iron ore concentrate production at two plants in Brazil due to the environmental catastrophe near the fields (breakthrough of the dam and flooding the region);
- Exit of Rio Tinto from a project at one of the world's richest iron ore deposits in Simandou. Having acquired the right to develop the field in 1997, the company was not able to start operation due to a lengthy conflict with local authorities.

Major Exporters of Iron Ore in the World



Source: World Steel Association

Major Importers of Iron Ore in the World



Source: World Steel Association

[5] As per estimates of PricewaterhouseCoopers '*Mine 2016. Slower, lower, weaker... but not defeated'*.
[6] China Metallurgical Industry Planning and Research Institute, 28 January 2016.

Against the background of rapid price increases for iron ore in Q4 2016 (up by approximately 45%), analytical agencies began to revising their forecasts. However, **changes in the projections have been minor since almost all of them expect a price correction in 2017.**

Additionally, in late 2016 coke prices slumped again. Therefore, the recent coke deficit in China was virtually eliminated as domestic supplies recovered. The National Commission for Development and Reform of the People's Republic of China (NDRC) cancelled some restrictions in November 2016 introduced in March 2016 at local coal mines[7] (complete removal of restrictions is expected by the end of Q1 2017). Meanwhile, demand for coal diminished in India, which announced the introduction of five-year dumping duties on coke from Australia and China that accounted for about 50% of the coke supply to the country.[8] Two coal mines in Australia resumed operations.

Annual Average Price, USD/MT*	Forecasts	
	2017	**2018**
Credit Suisse, 12.12	55.0	52.5
The Metallurgical Mines Association of China, 21.12	> 60.0	-
Consensus Economics, 12.12	59.1	56.2
IMF, 01.12	51.9	43.9
BoA Merrill Lynch, 12.12	60.0	55.0
Morgan Stanley, 15.12	57.5	57.5
Capital Economics, 13.12	58.1	49.8
Deutsche Bank, 12.12	54.5	-
Average 2016	**57.6**	
National Bank of Ukraine	55.4	51.2
Average forecast	**54.8**	**51.4**

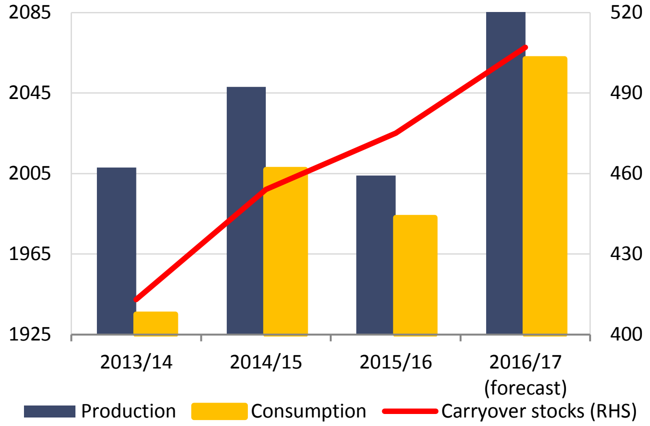
** Iron Ore Fines 62% Fe Cost and Freight Tianjin Port China*

Currently, the iron ore market is nearly balanced.[9] In addition, an increased supply of iron ore from the US, Australia, and Brazil is expected due to the launch of additional mining capacities and increased reserves. In particular, Vale officially opened its project on December 17 2016, being the largest one in the history of iron ore production (S11D) with commercial deliveries beginning in January 2017. In four years the production is expected to increase to 90 million tons a year. In addition, the Australian Plant Roy Hill Holdings reported an increase in production capacities. Therefore, price fluctuations in 2017 are expected in the range of USD/t 40- 60.

Grain prices showed signs of stabilization, albeit at a low level. Regardless of the record crop yields, the reasons why prices were maintained and even mildly rose at the end of Q4 2016 were as follows:

– for wheat – a reduction in the supply of high quality wheat to the EU market due to lower than expected crop yields, floods in the central US (Illinois, Missouri, Oklahoma) that caused significant damages to winter crops, instability in the purchase of large batches of wheat by Egypt;
– for corn – temporary breaks in the corn supply to the market due to the exhaustion of crop reserves in Latin America and late harvesting in Europe, the failure to fulfil planting season plans in Argentina (only 76% of the planned areas) on account of a lengthy drought and a seasonal decline in supplies from the US during the holiday period associated with Christmas and New Year.

Forecast for World Grain Production, Consumption and Carryover Stocks*, mn tons



** marketing year*
Source: International Grain Council as of 19.01.2017

Since the beginning of Q4 2016 world oil prices were under pressure from market expectations regarding OPEC countries' commitment to arrangements on reduced oil production, and a temporary reduction of oil and petroleum stocks in the US. The fluctuations ranged within USD/bbl. 47-52. Prices continued to be under pressure weighed down by:

[7] The NDRC allowed the companies to operate 330 days per annum instead of the 276 days set before.
[8] Duties amount to 16.29 USD/t for Australian products and 25.2 USD/t for Chinese products. According to S&P Global Platts, the cost of Chinese coke in India exceeds 350 USD/t. China is the largest exporter of coke to India, which, in its turn, is the largest foreign market for Chinese manufacturers of these products.
[9] The CEO of Fortescue Metals Group Ltd (an Australian iron ore company), the CEO of Roy Hill Holdings (an Australian mining company), Barclays, and Citigroup experts claim that the market is almost balanced.

– recovery of production in shale deposits of the US and Canada despite the beginning of the period of refinery maintenance in the US;
– continued rapid growth of oil production in OPEC countries, including Libya, Iran, Iraq, Kuwait, and Nigeria, with oil output reaching a new record of 33.8 million bbl/day;
– a rise in oil production by Russia to a record of 11.2 million bbl/ day, and the start of oil supplies by Kazakhstan from the Kashahan oilfield, one of the largest oil production fields in the world (geological oil reserves are estimated at about 6 bn tons).

Meanwhile, on 30 November 2016, OPEC countries and other world producers reached an agreement envisaging a reduction in daily production by 1.2 million barrels to 32.5 million barrels for OPEC countries and 0.6 million barrels for other global manufacturers. This decision immediately pushed the price higher to approximately USD/bbl 55. However, due to the uncertainty regarding the commitment to this agreement, prices edged lower. In December, world oil prices fluctuated between USD/bbl 52-55 as the agreement moved closer to coming into force.

Despite pessimism in the markets, Kuwait reported a decline in oil production by 130 thousand bbl/day since the beginning of January 2017, some Russian companies by 50,000 bbl/day, while Saudi Arabia informed its customers in Asia about a slight reduction in deliveries in February. This pushed prices up to USD/bbl 58. However, a lack of communication on the part of other manufacturers, as well as Iran’s plans to increase oil exports due to accumulated reserves and restored sales of the US strategic reserves pushed down the price to USD/bbl 54.

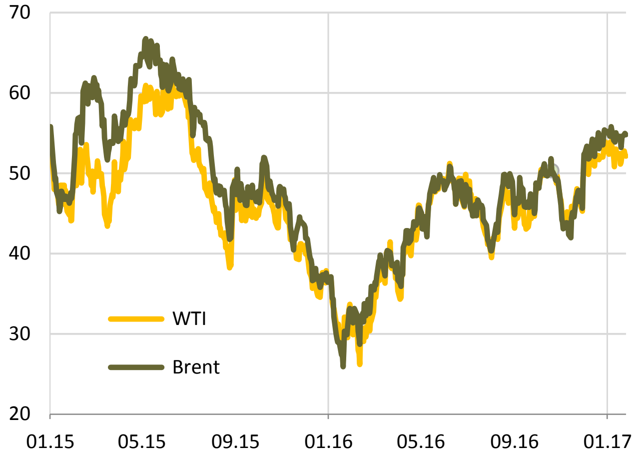
In global financial markets in the first half of Q4 2016, advanced countries' stock indexes continued the downward trend that started in September, despite the relatively favorable macroeconomic data both in the US and the euro area. The reasons were:

– strengthening of expectations of a Fed rate increase in December while the ECB kept its policy stance unchanged according to the results of the October meeting (with the QE issue left unaddressed);
– uncertainty about the results of the presidential elections in the US;
– increased volatility in the financial markets (the VIX volatility index recorded its fastest growth since August 2015 , up by 28% to 17 p in October);
– a strengthening of the USD;
– problems in the banking system of the European region, specifically in Italian banks.

Instead, the MSCI EM index avoided a decline as the economic outlook for developing countries improved amid expectations of a gradual rise in commodity prices.

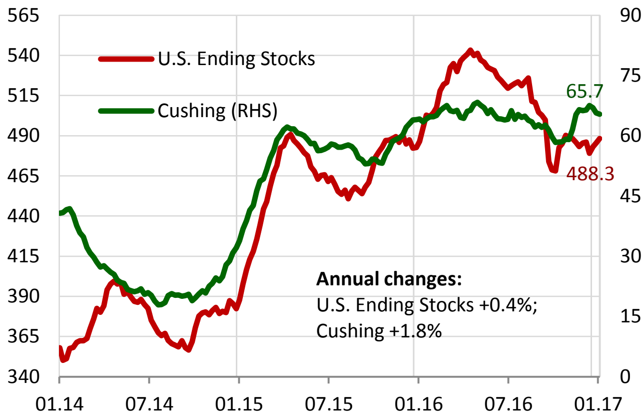
The unexpected results of the presidential elections in the US in early November resulted in a nearly instantaneous drop of leading stock indices (down by 3-5% on average), followed by a quick turnaround. Market participants focused on potential steps of a newly elected President Donald Trump, which can boost the US economy, lead to the accelerating inflation and more frequent interest rate

Brent and WTI Crude Oil Prices, USD/bbl, as of 25.01.2017



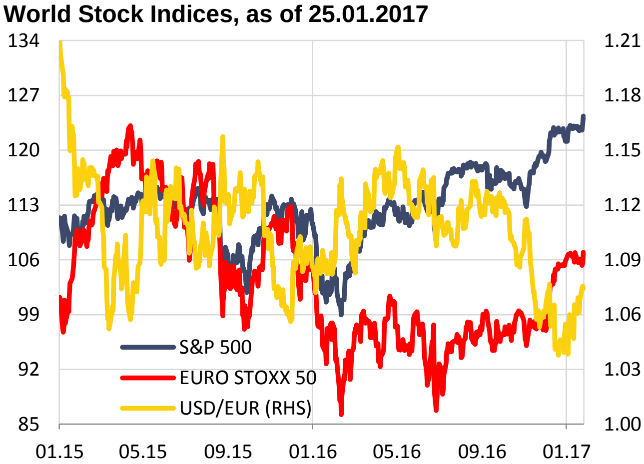
Source: Thomson Reuters Datastream

Ending Stocks of Crude Oil in the USA, mn bbl, as of 20.01.2017



Source: U.S. Energy Information Administration

World Stock Indices, as of 25.01.2017

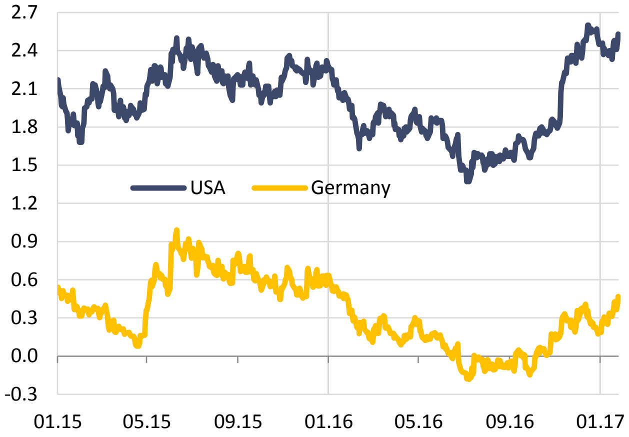


Source: Thomson Reuters Datastream

increases by the Fed. This provided a support to the US Dollar. The steps likely to be taken are as follows:

– easing regulatory barriers for the US financial institutions (including the elimination of a significant part of regulations implemented after the financial crisis (known as the Dodd–Frank law), as well as revoking the 2011 amendments to the Glass–Steagall Act that separated the activities of commercial and investment banks;
– a departure from the tight budget policy (fiscal stimuli in the amount of USD 1 trillion to about USD 5 trillion) implying lower taxes, the creation of new jobs, support of national companies, infrastructure recovery, etc.

Government bonds yields (10 year) of USA and Germany, as of 25.01.2017



Source: Thomson Reuters Datastream

Re-focusing economic stimulus: shifting from monetary to fiscal support

More recently, advanced countries, including Japan, the euro area, and Great Britain, have increasingly tended to implement non-conventional methods of monetary support to economic growth and achievement of inflation targets. This manifests itself in massive loans issued and investments channeled into infrastructure projects in the form of the so-called helicopter money, i.e., a form of monetary financing of public spending, such as the purchase of government bonds at a zero rate by the central bank, the write-down the government debt to the central bank, or direct financing of the private sector through the purchase of corporate securities.

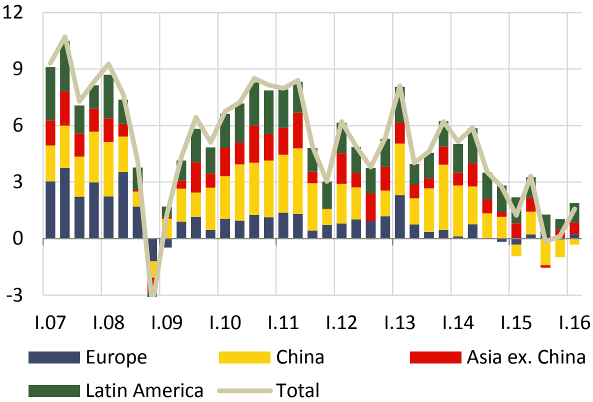
Policymakers in the United States are expected to shift focus from monetary to fiscal stimuli. The rationale put forward is as follows:

– a relatively faster transmission of stimulating effect to the economy due to a direct effect on GDP;
– exhausting the quantitative easing potential in terms of positive effects for the economy ;
– structural barriers to economic growth that cannot be resolved by monetary policy alone (among the latter - high private sector debt, low capital investment, etc.);
– negative side-effects of quantitative easing, such as the stimulation of speculative activity in financial markets.

Accelerated inflation, increased pressure on interest rates on the long end of the yield curve, and significant currency appreciation are the possible consequences of a shift towards fiscal stimuli for the US. Accordingly, this might reduce the attractiveness of emerging market (EMs) financial assets and increase the depreciation pressure on the exchange rates of this group of countries. For example, net capital inflows to EMs already started to slow down in 2013 after the Fed announced a "tapering" of the Fed's QE policies, with investment shifted into US securities. Already in 2015, emerging markets experienced significant portfolio outflows while lending activities of Western banks weakened. Such a negative trend continued into the first half of Q1 2016.

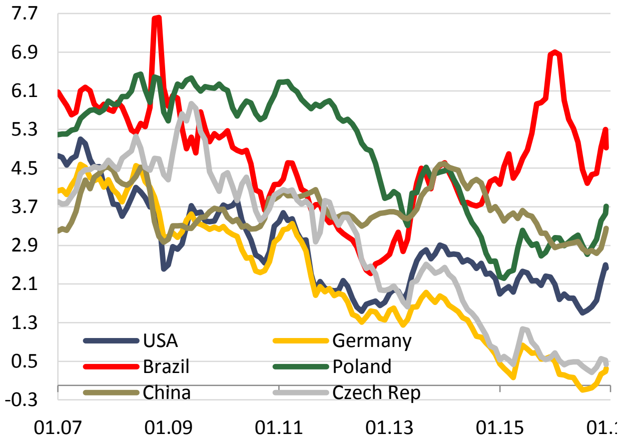
Net inflows of portfolio investments to this group of countries resumed in February 2016, driven primarily by the search of higher yields against the backdrop of low and negative interest rates in advanced countries. Moreover, investors favored bonds over stocks, which was largely related to expectations of low long-term interest rates in the US. However, in Q4 2016, the situation changed completely, producing a more challenging environment set to dominate in the coming years.

Emerging Market Economies: Net Capital Inflows, % of GDP



Source: IMF

Government bonds yields (10 year), monthly average, %, as of 25.01.2017



Source: Thomson Reuters Datastream

The expectations of a shift to the fiscal stimulus in the US benefited advanced stock indices in the second half of Q4 2016. Another factor was the rotation of investments from a weak bond market into stocks. The scale of losses in the bond market indicated the end of a 30-year bond bull market. Bonds worldwide lost USD 1.7 trillion worth in November 2016, according to the Barclays index. Upward revisions of US inflation and GDP growth forecasts, increased expectations of Fed rate hikes under these conditions, and the expected growth of the public debt (according to the estimate of Committee for a Responsible Federal Budget by more than 20%, or USD 5.3 bn by the end of 2026) pushed up US treasury bond yields (to 2.6% in December, the highest level since September 2014). The 10-year yield spread relative to the euro area reached its highest level since 1989.

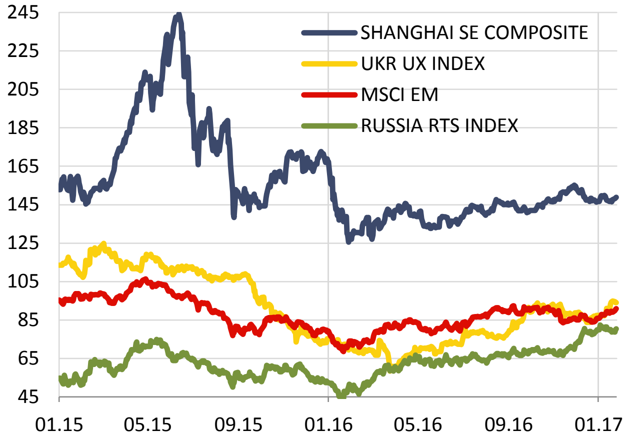
Simultaneously, as expected, the Fed raised its key interest rate in December. This policy gave a boost to the US Dollar, while increasing the depreciation pressure on the EUR. Additional factors weighing on the EUR were as follows: increased political risks in the euro area amid election campaign in France, a cabinet shake-up in Italy, and Brexit process uncertainty , as well as the extension of the ECB's program of quantitative easing (despite its further reduction). As a result, the EUR fell to USD/EUR 1.038.

Consequently, EM financial assets faced worsening environment in November-December 2016 in view of the prospects of a tighter Fed's monetary policy, higher yields on 10-year US government bonds, and the US Dollar appreciation. The tightening of the Fed's monetary policy, along with the protectionist tendencies in the US and globally, are expected to intensify, paving the way for large-scale capital flight from this group of countries. The portfolio investment outflow from EMs continued in the period from 4 October 2016 through 16 December 2016, according to IIF data, amounting to USD 23 bn, with the US post-election losses of USD 18 bn.

However, at the end of the year capital outflow reversed and the asset attractiveness of this group of countries even increased. The attractiveness of these countries to investors is caused by favorable interest rate differentials, as well as positive long-term prospects for EM countries, a higher pace of economic growth compared to developed countries, and generally improved macroeconomic fundamentals.

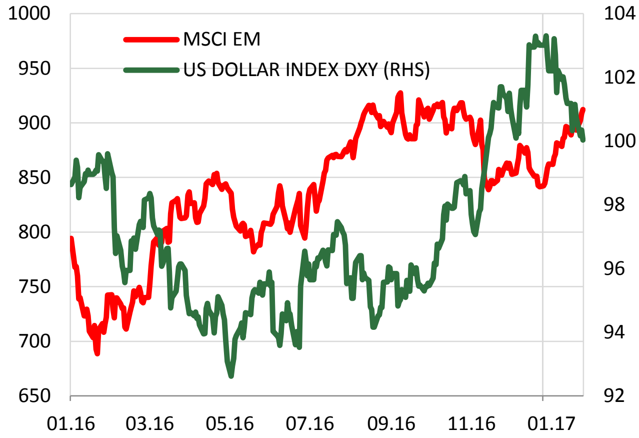
In Q4 2016, the EM currencies mostly depreciated, except for commodity-oriented currencies (such as the Russian ruble, the Kazakhstani tenge, the Brazilian real) against the background of the US dollar strengthening in global currency markets and increased expectations of a Fed rate hike. In December, the depreciation of EM currencies slowed down while some of the currencies strengthened. Thus, despite downward pressure on the CEE currencies amid weaker euro, the Hungarian forint appreciated following an upward revision to GDP , as did the Polish zloty, as signals from the People's Bank of Poland about maintain the current tight monetary policy stance strengthened the currency.

Emerging market stock indices, 1 Jan 2014=100, as of 25.01.2017



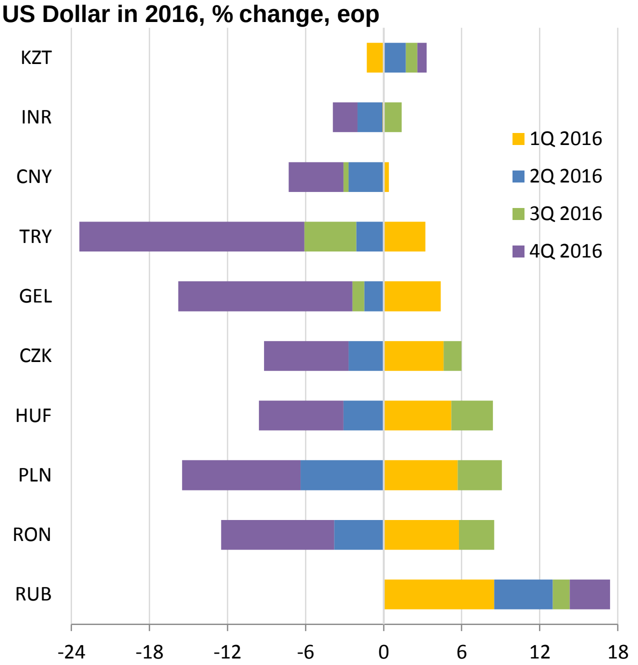
Source: Thomson Reuters Datastream

US Dollar Index and Emerging market stock index, as of 25.01.2017



Source: Thomson Reuters Datastream

Exchange Rates of Emerging Market Currencies versus US Dollar in 2016, % change, eop



Source: Thomson Reuters Datastream

2.2. DOMESTIC ECONOMY

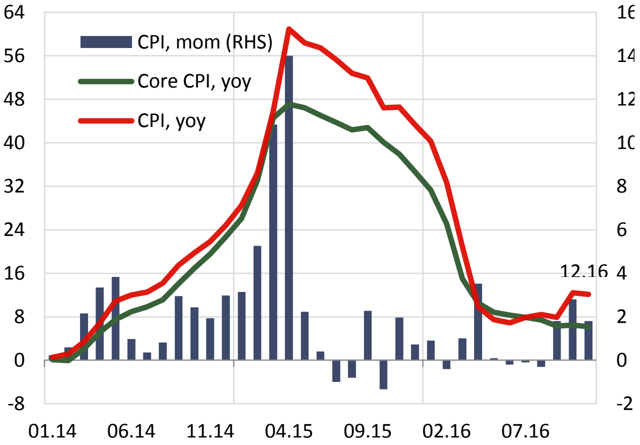
2.2.1. INFLATION DEVELOPMENT

In 2016, headline inflation fell sharply to 12.4%, having increased by 43.3% in 2015. Meanwhile, headline inflation gained pace qoq (up from 7.9% yoy in September 2016).

The dynamics of consumer prices in 2016 was broadly in line with the NBU forecasts published in last year's Inflation Report, envisaging a 12% rise in consumer prices. Thus, the NBU met its 2016 inflation target within a range of 12% ±3 pp, set in the Monetary Policy Strategy for 2016-2020.

The rapid inflation slowdown in 2016 was driven primarily by an abating underlying inflation pressure. This is evidenced by an acute drop in core inflation. Additionally, favorable raw food supply factors produced a substantial effect. Meanwhile, higher administered tariffs and rising global oil prices became the main drivers behind the rise in prices. The impact of these factors intensified in Q4, contributing to the acceleration of the overall CPI growth.

Inflation Indicators, %

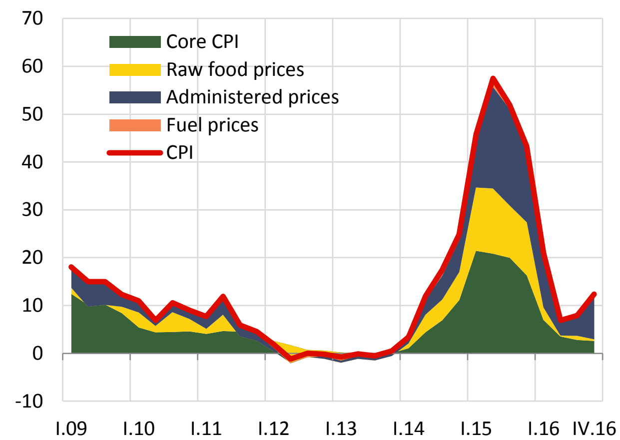


Source: SSSU

Core inflation

Core inflation slowed to 5.8% yoy in 2016 and on the quarterly basis (from 34.7% in 2015, 6.3% yoy in September) broadly matching the recent NBU forecast (5.6% yoy). Sound fiscal and monetary policy, a decrease in the intensity of the military conflict in eastern Ukraine, and second-round effects from raw food supply-side factors have contributed to a slowdown in core inflation.

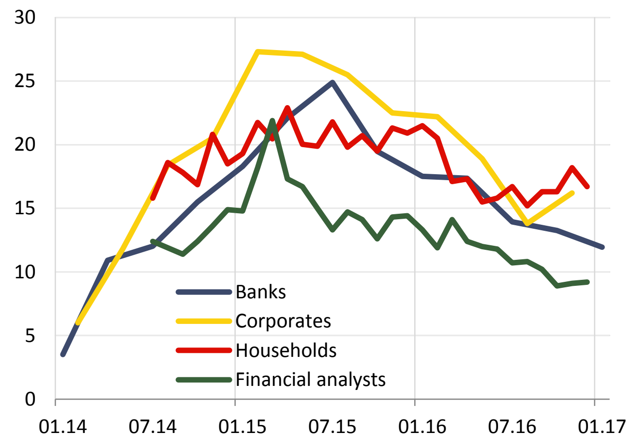
Contributions to Annual Inflation, pp



Source: SSSU; NBU staff estimates

Therefore, a strengthening of the role of the key policy rate, its controlled reduction in the course of the year, and the government's effort to maintain the fiscal deficit within the target band led to significant improvements in inflation and exchange rate expectations, which also restrained demand-pull inflation pressures. Another important factor behind lower inflation was a moderate volatility of the hryvnia exchange rate observed during most of the year thanks to the favorable situation in foreign markets, revenues from the export of high grain and oil yields, as well as due to the NBU's measures to smooth excessive exchange rate fluctuations in the interbank currency market. However, the slowdown of core inflation was restrained in Q4 by a slight deterioration in inflation expectations of corporates and households.

Inflation Expectations for the Next 12 Months, %



Source: NBU; GfK Ukraine

In 2016, prices for goods that are predominantly imported, such as household appliances, and clothing and footwear, decelerated to 5.7% yoy and 5.5% yoy (compared to 36.4% yoy and 35% yoy in 2015), respectively. For instance, prices for some goods, such as audio and video equipment or information processing equipment, even declined in annual terms (down by 1.8% yoy and 0.4% yoy, respectively). Also, prices for processed foods decelerated significantly (to 5.7% yoy from 42.3% yoy in 2015) due to the secondary effects of lower raw food inflation. However, compared with Q3, the growth rate of prices for processed foods accelerated slightly (from 5.0% yoy in September). This was caused primarily by higher prices for selected raw materials (milk). The growth rate of costs of services in core CPI stood at 8.7% yoy in December, unchanged from September, having decreased, however, from 17.6% yoy in December 2015.

Non-core inflation

Non-core inflation accelerated to 17.5% yoy in Q4 2016 (9.0% yoy in September), although remaining significantly lower than in 2015 (49.7% yoy).

The administered component was the main contributor to the acceleration in non-core inflation late in the year. Nevertheless, the growth rate of administered prices and tariffs in 2016 was much lower than in 2015 (34.6% yoy and 64.4% yoy, respectively). Last year, the rise in tariffs on all types of housing and utility services continued: electricity by 60.0%; cold water by 42.0%; sewage by 28.3%; natural gas by 42.0%; hot water by 82.9% Also, the effect of a rise in heating tariffs occurring in July (by 89.3%) manifested itself in Q4. In Q4, the growth of prices for tobacco products and alcoholic beverages accelerated (up to 22.9% yoy and 21.6% yoy in December, respectively) due to the pricing policies of tobacco manufacturers and increased production costs. Moreover, in December, the government raised the minimum prices for alcoholic beverages (by 27% on average).

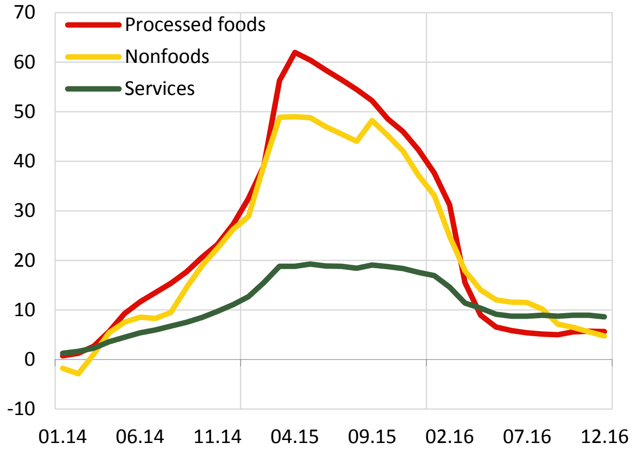
Prices for bread continued to accelerate (up 7.4% yoy in December) primarily due to higher production costs. However, the pace of growth was significantly slower than in 2015 (45.7% yoy).

Raw food prices slowed down to 1.2% yoy in December 2016 (from 40.7% yoy in 2015 and 3.5% yoy in September). A sharp fall in raw food inflation occurred due to a number of food supply factors the effects of which were more powerful and prolonged than expected. In particular, this refers to the high harvests of grains, vegetables, and some fruits (mainly apples) in Ukraine, and citrus fruits in other countries. In Q4, the fall in prices for the borsch vegetables deepened to 43.1% yoy, while last year they grew 2.8 times. In addition, the trade policy of Russia towards Ukraine (a food embargo in force since the beginning of 2016), as well as relative to other countries, caused an expansion of the food supply. Thus, trade sanctions by the Russian Federation on supply of selected types of agricultural products of Turkish origin resulted in an increased supply of vegetables and fruits in the Ukrainian market and, accordingly, brought about a decline in prices. In particular, the prices for tangerines and oranges decreased in 2016 by 13.6% yoy (after a 43.2% increase yoy in 2015), the prices for tomatoes and cucumbers fell as well by 45.8% yoy and 35.1% yoy, respectively (compared with a decrease by 24.6% yoy and by 28.5% yoy in 2015).

Meat prices accelerated slightly in Q4 (to 5.0% yoy) due to a pick-up in demand. The restrictions on exports of pork and chicken in the wake of an unfavorable epizootic situation restrained price increases. Also in H2 2016, the rise in prices for milk and dairy products accelerated amid higher demand from processing enterprises due to increased export volumes of dairy products.

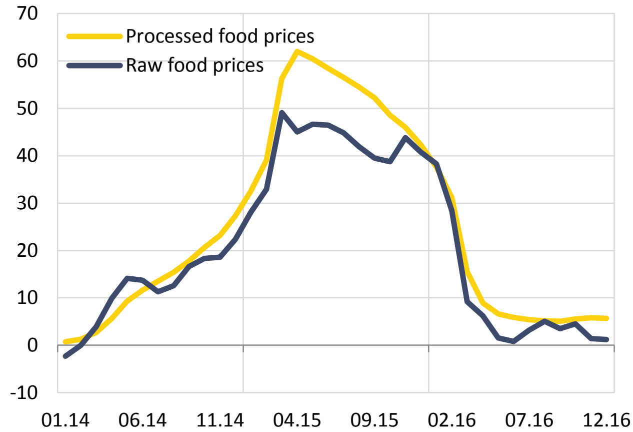
In 2016, fuel prices went up by 19.5% yoy (by 12.3% yoy in 2015). Prices accelerated in Q4 reflecting higher world

Main Components of Core CPI, % yoy



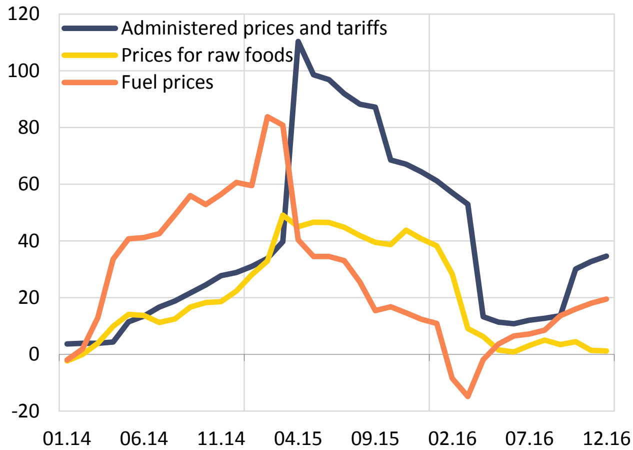
Source: SSSU; NBU staff estimates

Processed and Raw Food Prices, % yoy



Source: SSSU; NBU staff estimates

Main Components of Non-Core CPI, % yoy



Source: SSSU; NBU staff estimates

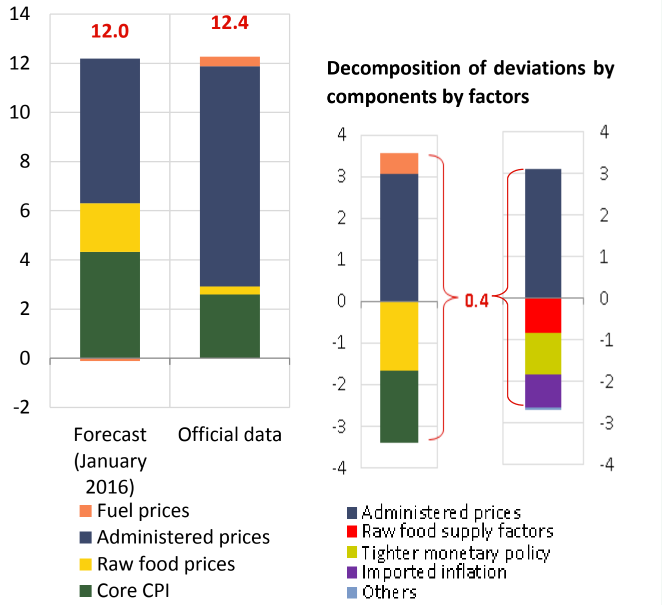
oil prices as well as a moderate hryvnia depreciation. However, the rise of prices for liquefied gas slowed down to 24.0% yoy in December as its supply deficit, which emerged in previous quarters due to reduced imports from Russia and Belarus, was eliminated.

Inflation forecast estimate

In 2016, actual year-end inflation stood at 12.4%, closely matching the NBU's forecast of 12% published at the beginning of the year. However, inflation rates across the CPI components slightly differed from the forecast values.

On the one hand, administered prices rose faster than expected in early 2016. This is primarily explained by a more rapid adjustment in utility tariffs to cost recovery levels. In particular, at the end of April 2016, the Government issued a decision to unify the price for gas for households and industry, having abolished the so-called social norm that was in force during the heating season. For households, this decision was partially offset by increased budget expenditures for utility subsidies. However, it was fully reflected in the CPI change since, according to the CPI compilation methodology, government-aid discounts are disregarded in the calculation.[10] The growth of global oil prices also exceeded expectations. Therefore, the contribution of fuel prices changed from negative to positive, albeit remaining minor.

Annual CPI Growth Forecast Error by Main Components and Factors, pp



Source: NBU staff estimates

On the other hand, core inflation and the increase in raw food prices were lower than projected. Lower core inflation was caused by a slightly more restrained monetary policy than expected in early 2016. This was due to higher inflation risks amid recurrent sharpening of political tensions, delayed external financing, and a high volatility in global commodity prices. In addition, imported inflation was lower than expected due to the nominal exchange rate strengthening and slower inflation in trading partners that impacted all inflation components. The slower rate of growth of raw food prices is explained by various supply shocks, which were more pronounced and prolonged than expected.

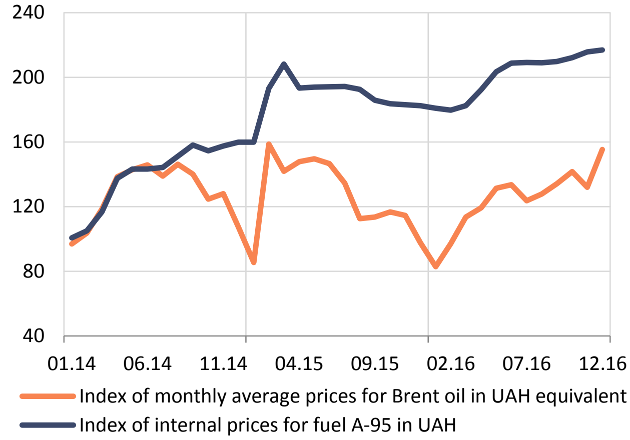
Producer Price Index

In 2016, the producer price index accelerated to 35.7% yoy (from 25.4% yoy in 2015). Last year, producer prices mainly tracked price trends in global commodity markets. In particular, rising input prices for iron ore and coke in global markets during Q4 2016 resulted in a significant annual growth in prices for metal ore and coal production. Prices in the extraction of crude oil and natural gas accelerated in response to a surging world oil prices.

As a result, prices in the mining industry gained momentum in 2016 (up 85.1% yoy compared to 17.6% yoy in 2015), with the acceleration particularly marked in Q4 (up from 44.6% yoy in September). Along with the increased demand for finished goods, this pushed up prices at the next stages of production, particularly in metallurgy, production of coke, and refined products.

Other processing industries saw a more moderate pick-up in prices. Thus, prices in the chemical industry even fell in 2016 (by 1.4% yoy) weighed down by price competition

Price Indexes for Fuel and Oil (12.2013=100)



Source: SSSU; Thomson Reuters Datastream

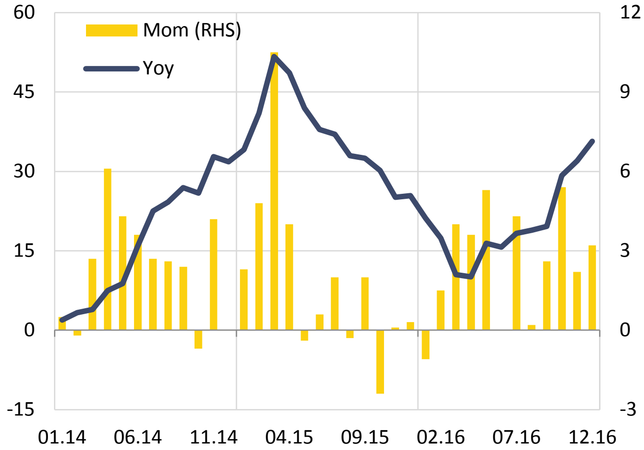
[10] For more information please see *The Methodological Provisions for Arranging a Statistical Survey of Changes in Prices (Tariffs) for Consumer Goods (Services) and CPI Calculations* approved by SSSU Order No.158 of 29 August 2016.

from imported fertilizers. However, prices in this sector showed renewed strength in December (for the first time in six months) as the fertilizer market recovered.

Prices in the food industry accelerated in Q4 to 16.2% yoy in December. This occurred, particularly, due to accelerating prices for dairy products (up to 24.5% yoy in December) amid increased production costs, declining number of livestock, and external market pressures. The growth rates of prices for bread, meat, and meat products remained unchanged after a significant slowdown in the first three quarters of the year. The rise in prices in sugar production slowed down significantly for the year as a whole (2.8% yoy versus 69.7% yoy in 2015) and compared with the previous quarter (15.8% yoy in September) due to high crop harvests.

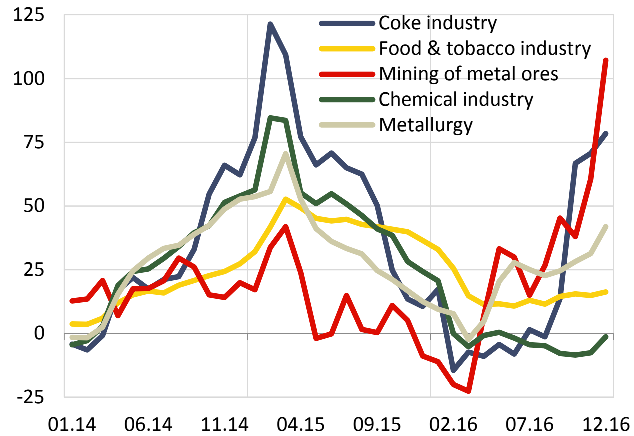
Price increases in the supply of electric power, natural gas, steam, and conditioned air accelerated to 51.5% yoy (33.2% yoy in 2015 and 19.8% yoy in September) due to higher costs of selected raw materials, specifically, coal and natural gas.

Producer Price Index, %



Source: SSSU

Producer Price Indexes in Select Industries, % yoy



Source: SSSU

Alternative measures of core CPI

The central banks conducting monetary policy within the inflation targeting framework recognize the importance of the underlying inflation trend estimate. Using the overall CPI measure for this purpose has certain disadvantages. First, the prices for some goods and services included in the overall CPI are occasionally very volatile and depend on temporary factors. Second, the factors independent from the central bank and those that monetary policy measures cannot address heavily influence the change in prices for individual goods and services. In particular, these prices include: fuel prices which significantly depend on world oil prices that are highly volatile under the influence of supply factors; prices for raw food affected by the volume of crop harvests; and administered prices. At the same time, when analyzing inflation developments and making monetary policy decisions, central banks rely not only on the Consumer Price Index (CPI), but also on other inflation measures, in particular, core inflation (which capture underlying price movements more correctly).

Although core inflation indexes are less volatile and more dependent on monetary policy in all countries implementing the inflation targeting regime, central banks formulate targets in terms of headline inflation and are accountable to the general public for their performance.[11] This is primarily caused by the fact that the general public is more familiar with headline inflation measure per se, while the core inflation concept requires thorough communication and clarifications. In addition, with foods accounting for a sufficiently large share of the CPI, their exclusion from the target index will reduce public confidence in the statements and actions of the central bank. Using other indicators that are published with a significant delay (such as the GDP deflator) reduces the effectiveness of monetary policy.

The core CPI is conventionally calculated by excluding components less influenced by monetary policy. However, such an approach does not guarantee the levelling off of effects of temporary shocks. Furthermore, excluded components might cover components where price changes are caused by fundamentals. In view of this, alternative approaches to calculating the core CPI gained popularity among central banks. Their dissemination contributes to the enhanced informativeness of monetary policy formulation and implementation.

Alternative measures of core inflation by select central banks in recent years

Central banks	Exclusion-based	Trimmed mean	CPI volatility-weighted	Weighted median	Factor model – Principal component
USA	●	√	√		√
ECB	●				
England	√			√	
Japan	●	√			
Switzerland	√	√			
Australia	√	●	√	√	
New Zealand		√	√		●
Sweden	●	√		√	
Norway	●	√	√		
Canada	●	√	√	√	√
Poland	√	√			

● - main method, √ - additional methods.

Source: Khan, M., Morel, L., Sabourin, P., 2015. A Comprehensive Evaluation of Measures of Core Inflation for Canada. Bank of Canada Discussion Paper No. 2015-12; web pages of central banks in Internet.

In Ukraine, the core CPI is calculated by the SSSU using the method of exclusion of raw foods, fuel, and administered goods and services from the CPI, and has been published since 2008. In addition to the core CPI, the NBU implemented alternative approaches to core inflation calculation. To select the best of them, the following statistical properties of indices obtained such as bias, volatility, and persistence (the ability to cover stable price changes) were assessed.

Core inflation measures will serve as the best option for characterizing the underlying inflation trend in Ukraine based on statistical properties and economic sense:

[11] G. Hammond CCBS Handbook – State of the art of inflation targeting; updated 2012. http://www.bankofengland.co.uk/education/Documents/ccbs/handbooks/pdf/ccbshb29.pdf

Trimmed mean, Trim

This approach implies that each month, when calculating the CPI, the largest price changes (positive or negative extreme values) are discarded. Therefore, short-term temporary price shocks are disregarded in calculations by cutting 15% of the basket component from each side.

Weighted median, WMedian

Weighted median shows the monthly price change of the CPI component that corresponds to the 50th percentile in terms of CPI basket weights. To find this value, each month all CPI components are ranked by price changes (i.e., from the lowest value to the highest), which is equal to the respective weight of components in CPI (the sum of the respective weight of the CPI components is 100). Then weights are added cumulatively and the price change of such a component having a value of 50 (central value of the weight structure) is chosen. Therefore, the weighted median per se is an extreme case of trimmed mean when all the components from the CPI basket of goods and services are taken out except the *midpoint (in terms of weights)*. The use of this approach is especially important in the case of increased asymmetry of price distribution since, under these conditions, the weighted median is a better measure of the central tendency than the remaining approaches.

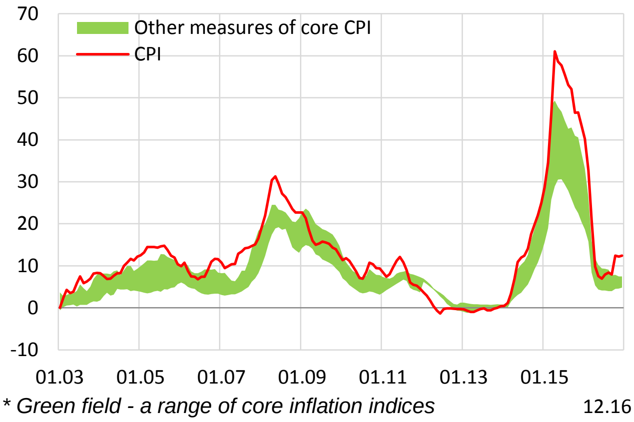
CPI volatility-weighted, CPIW

In applying this approach, the number of CPI components does not change. However, the contribution of the most volatile components will be reduced by a reweighting of the weights of components by a value that is inversely proportional to their historical volatility. Therefore, the higher the price volatility of the CPI component, the lower weight it will be assigned in the CPI, and vice versa.

Principal component, PC

According to this approach, the index that determines the core inflation trend in Ukraine is calculated on the basis of a factor-model method. This method enables distinguishing common price changes in the CPI's individual components, removing the influence on price dynamics of the specific short-term shocks, including sector-specific shocks. Common price changes are indicative of the fluctuations in aggregate demand in the economy.

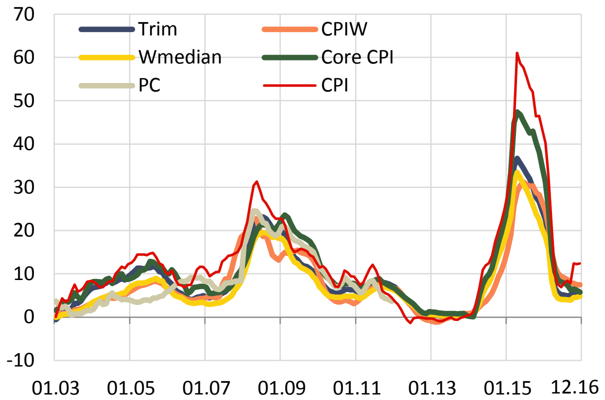
Price Indicators, % yoy



* *Green field - a range of core inflation indices*

Source: NBU staff estimates

CPI and Measures of Core Inflation, % yoy



Source: NBU staff estimates

In historical perspective, the dynamics of the underlying CPI in Ukraine reflected somewhat higher inflationary pressures than predicted based on fundamentals. But in different periods, such an excess was caused by various reasons. In particular, in 2004-2005, prices for raw food and fuel grew faster. From 2006-2007 and in 2010, the administrative component increased rapidly. In 2008, the CPI exceeded the core indices due to the rapid rise in the prices for raw food, and in 2011 due to increases in fuel prices. In the past two years, administered prices and tariffs, and fuel prices, rose sharply.

In its turn, core inflation exceeded the overall CPI in 2009 and from 2012 – 2013. During this period food prices declined, particularly those for raw food, amid increased supply due to high crop harvests of grains, fruits, and vegetables. Disinflation trends during this period were strengthened by the downward price trends in the foreign markets.

In 2016, core inflation continued to stay in a narrower range in the recent months stabilizing at around 8%. In the next two years, the stabilization of the core inflation index at 5–6% is expected. Despite a forecasted further decline in the overall CPI index, it will remain quite volatile, in particular due to expected further increases in administered prices and tariffs. Therefore, the NBU initiated the use of alternative measures of core inflation along with the measures of overall and core CPI (based on an exclusion method) in the inflation analysis.

2.2.2. DEMAND AND OUTPUT

In Q3 2016, real GDP growth accelerated to 2.0% yoy, slightly exceeding NBU expectations.

Investment demand expectedly played a key role in economic development during 2016. The improved financial results and business expectations, significant budget capital expenditures, and postponed investment demand from 2014-2015 contributed to increased investment activity. Investments into construction and agriculture increased most markedly. The GVA in the relevant sectors also increased. There was a significant inventory accumulation driven by gas injection into underground storages and this year's high crop harvest. As a result, gross capital formation increased in Q3 by nearly 33% yoy, causing a contribution of 7.6 pp to the annual change in GDP.

Significant investment demand and stockpiling stimulated faster than predicted import growth. By contrast, exports continued to decline with the negative contribution of net exports rising to 9.4 pp.

Furthermore, growth of private consumption accelerated to 5.0% yoy.

According to NBU's estimates, GDP growth accelerated in annual terms during Q4. The economy was driven by agriculture, which experienced a significant increase in the production of late agricultural crops. Also, both the domestic and external environment for mining and metallurgy improved in mid-quarter.

GDP growth in quarterly terms continued from mid-2015, interrupted only at the beginning of 2016 under the influence of temporary factors.

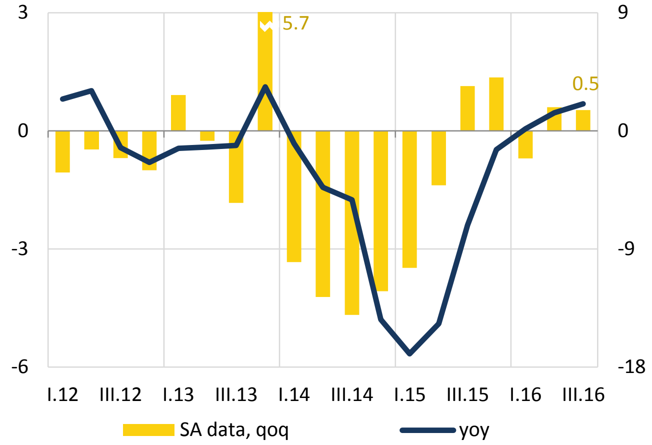
Nevertheless, economic recovery in 2016 outpaced forecasts. In particular, in Q3, real GDP growth accelerated to 2.0% in annual terms, exceeding the NBU estimate (1.6%). The economic development trends were largely in line with the expectations, but appeared to be more pronounced.

Domestic demand

As predicted, domestic demand, especially investment, became a driver of the economic recovery. Thus, gross fixed capital formation surged almost 25% yoy in Q3, exceeding expectations. General factors that facilitated investment activity were improved financial results and business expectations, significant budget capital expenditures, and pent-up investment demand accumulated over 2014-2015.

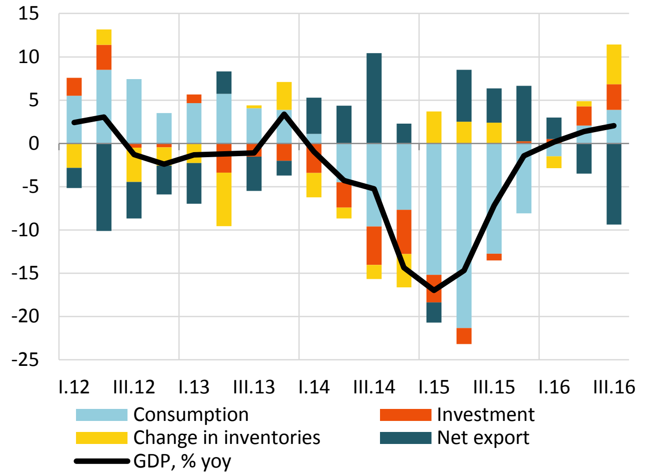
Enterprises' own funds and public expenditures remained the main sources of funds used to finance the investment demand, while the credit activity of banks and foreign investment inflows into the real sector remained low. Investment needs were met mainly by imports due to a significant increase in the imported production means. Nevertheless, according to NBU's estimates, the investment into domestically produced fixed assets also increased significantly in Q3.

Real GDP Growth, %



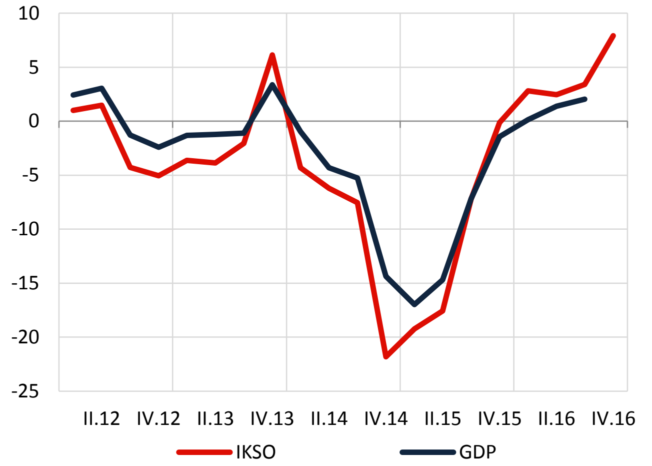
Source: SSSU

Contributions to Annual GDP Growth, pp



Source: SSSU; NBU staff estimates

Index of Key Sectors Output and Real GDP, % yoy



Source: SSSU; NBU staff estimates

In terms of capital attracted by enterprises, machinery and equipment experienced the strongest growth – up by 40% yoy.

Such investment goods were mainly imported. Therefore, although few benefits were felt across a wider range of domestic machine-building industries, however the volumes of machinery and equipment produced in Ukraine for the needs of certain activities increased (find more details in the *Output* section).

Agriculture and forestry experienced a stable recovery in investment demand. Capital investments in this sector have started to grow since the beginning of 2015, particularly in Q3 2016 they grew by more than 50% yoy. On the one hand, this could raise this year's crop yields, while also reflecting a considerable potential of crop production[12] and, as a result, its investment attractiveness.

In Q3, a wide range of industries saw increased capital investment. Stable increasing trends in investment demand were recorded in food production and activities where the bulk of products are manufactured for the construction purposes (abrasive products and non-metallic mineral products, ceramic tiles and slabs, products of concrete, plaster, cement, asphalt or similar materials). Capital investment recovered in the metallurgy and mining industry following a prolonged decline. This could be explained by repair works at individual enterprises, especially, those operating in the challenging environment due to disruptions in the supply of key raw material inputs.

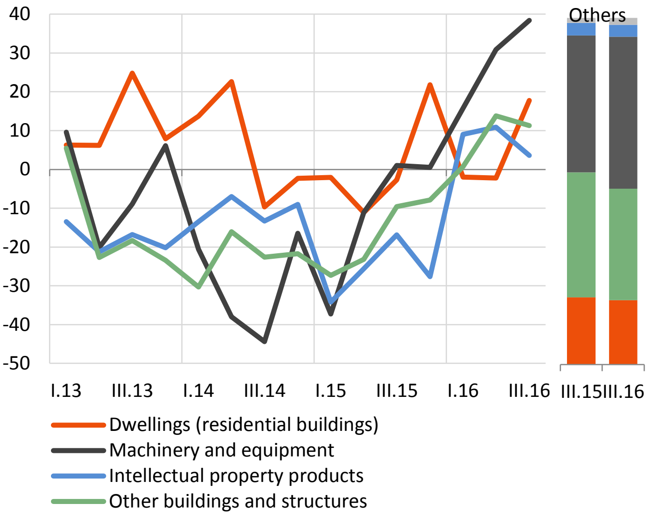
The investment into housing accelerated significantly (up 23% yoy). The real estate market saw the price environment[13] underpinning stronger demand. Particularly, at the beginning of the reporting quarter, housing prices bottomed out (after prices declined in dollar terms as the hryvnia strengthened against the US dollar), and predominantly increased further. Investment in other buildings and civil engineering's, although having slowed, remained at a high level primarily due to the budget expenditures on roads. The construction, according to NBU estimates, provided the greatest support to the domestic production of investment products.

High crop yields and gas accumulation in underground storages (more active, than in the same period last year) contributed to the accumulation of inventories. In addition, a significant demand for raw materials is attributable to increased devaluation expectations in the second half of Q3.

As a result, in Q3 gross capital formation increased, overall, by nearly 33% yoy, responsible for the contribution of 7.6 pp to the change in GDP.

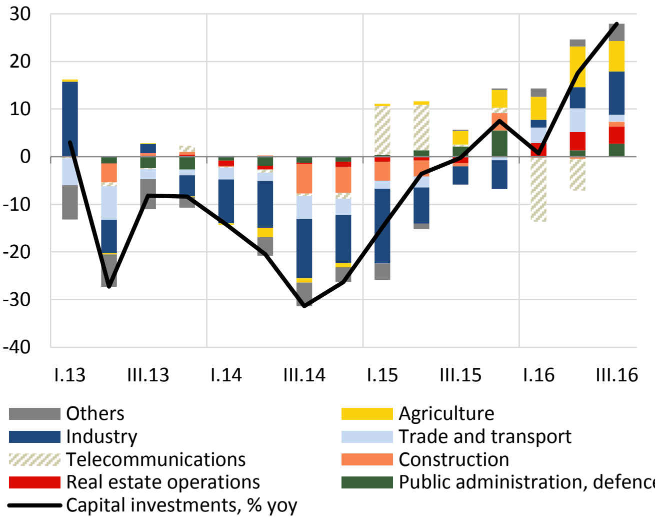
As expected, domestic consumer demand remained moderate, although private consumption growth accelerated slightly (to 5.0% yoy) as real disposable income showed a similar pattern (up by 7.3% yoy).

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



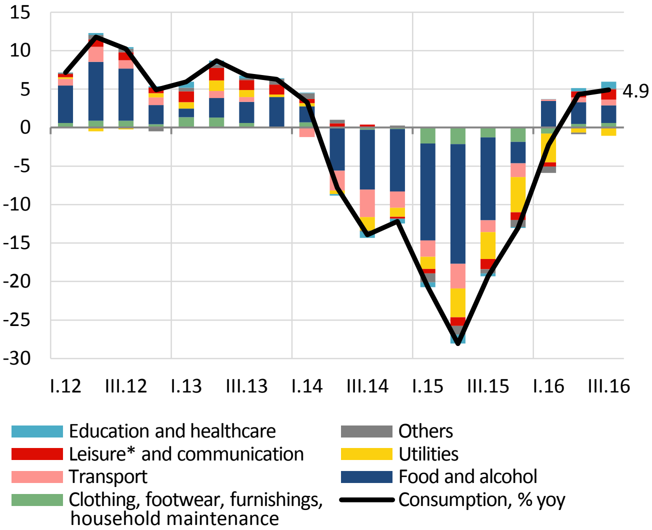
Source: SSSU

Contributions to the Annual Change in Capital Investment, pp



Source: SSSU; NBU staff estimates

Contributions to Annual Change of the Household Final Consumption, pp



** The expenditures on restaurants and hotels, recreation and culture are grouped in 'Leisure' category*
Source: SSSU

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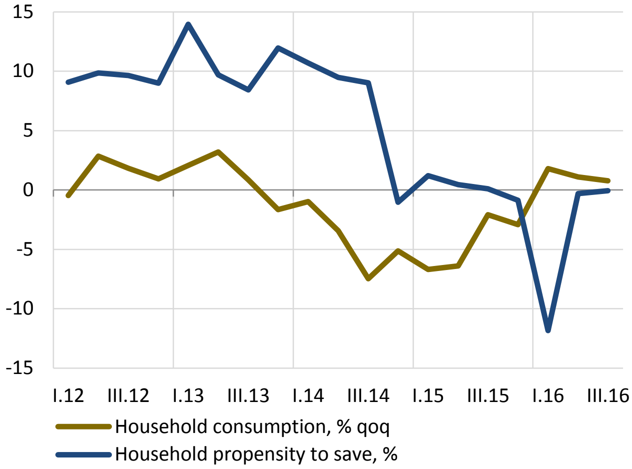
[12] Despite a strong trend of improvement in crop yields over the last few years, it is yet lower than in some countries specialized in planting grains
[13] According to the statistics data in the real estate portal Domik.ua.

Household consumption increased across all major categories except utilities. The most notable increase was recorded in service consumption, including recreation and culture, restaurants and hotels. Final consumption expenditures on 'health care' grew sharply. The increase in expenditures on 'furnishings, household equipment and housing maintenance' can be attributed to the purchase of energy-efficient appliances before the beginning of the heating season, and increased devaluation expectations. The decline in consumption of utilities deepened to 6.9% yoy, probably reflecting the thrifty behavior of households facing significant tariff increases.

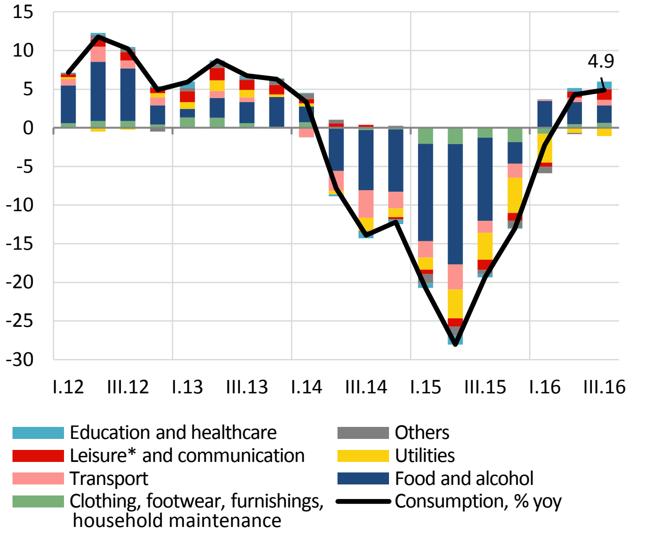
The consumption of general government sector grew as expected (by 3.0% yoy). With current expenditures rising, the growth of 'collective consumption expenditures' of the government sector accelerated (up 8.4% yoy). However, the decline in 'individual consumption expenditures' slowed down (to 1.2% yoy), largely as a result of increased subsidies issued to the households due to the raised utility tariffs.

Households Consumption and Propensity to Save*, sa



* The ratio of personal savings to disposable income
Source: SSSU; NBU staff estimates

Contributions to Annual Change of the Household Final Consumption, pp



* The expenditures on restaurants and hotels, recreation and culture are grouped in 'Leisure' category
Source: SSSU

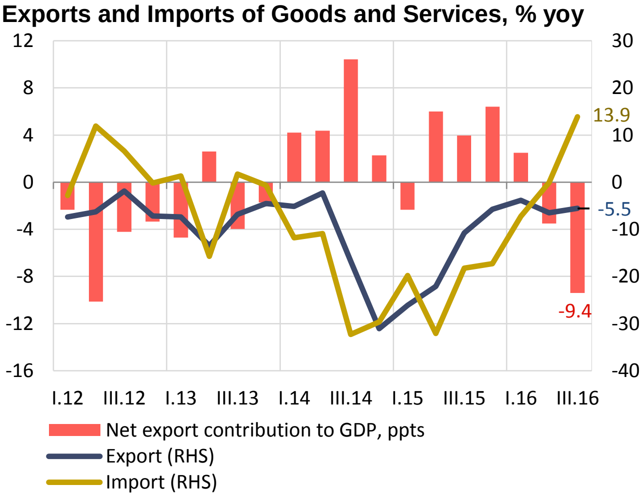
External demand

The negative contribution of net exports has significantly increased in Q3 (to 9.4 pp).

Domestic demand, in particular considerable investment demand, became a driving force behind import growth in Q3 (to 13.9% yoy), that exceeded NBU's estimates. Imports of production means and consumer goods expanded at a high pace.

By contrast, exports underperformed expectations: the decline decelerated marginally (to 5.5% yoy), while the performance of food and machinery exports worsened.

Exports and Imports of Goods and Services, % yoy



Source: SSSU; NBU staff estimates

Output

Change in gross value added (GVA) in core industries was broadly in line with expectations. The GVA performance, except for construction and agriculture, deteriorated.

Recovery in construction continued at a considerable pace, particularly the GVA growth accelerated to 17.5% yoy. High investment demand became the driving force behind a significant growth in major types of construction.

The GVA growth in agriculture accelerated to 1.1% yoy. The key factor behind a pick-up in agricultural growth was rising yields by almost all agricultural crops.[14] However, the downturn in animal production spread across all major sectors (animal breeding, milk and egg production). A negative trend was observed towards a deeper decline in milk production amid continued reduction in the number of cattle stock.

In Q3, a slight decrease in industrial GVA (by 0.7% yoy) resumed although growth of industrial production continued to accelerate (to 1.7%). Such a situation might reflect an increased share of intermediate consumption by industrial enterprises, in particular due to the rising energy cost.

[14] Grain yields at the beginning of October 2016 were 8.3% higher compared to the same date of the past year.

Across industrial sectors, food production resumed growth (up 2.9% yoy). In particular, owing to high sunflower and sugar beet harvests, oil and sugar production grew sharply at the end of the quarter.

Recovery of the construction demand provided support to some industries. The production of non-metallic mineral products used for the construction purposes increased at a high pace. Following a prolonged decline, a slight increase was recorded in production of metal structures and products. Both sawmill production and wood planning and the production of selected types of construction chemicals (varnishes, paints) saw continued growth.

Sagging global steel prices and limited opportunities for the freight transportation in the east of the country adversely affected the metallurgy. As a result, the growth of metallurgical production and manufacturing of coke slowed down for the second consecutive quarter, while the fall in the production of metal ores deepened. In the meantime, coal production resumed growth thanks to the steady coal supply to the power stations from the eastern regions.

Machine building faced a challenging environment, mainly, due to the negative impact of structural factors, specifically, the loss of the CIS market and a low competitiveness of the industry as a whole. However, the sectors producing machinery and equipment designed to meet specific requirements of selected types of activities posted growth, taking advantage of a stronger investment demand. In particular, the production of machinery for the needs of agriculture and forestry, metallurgy, mining and construction picked up considerably.

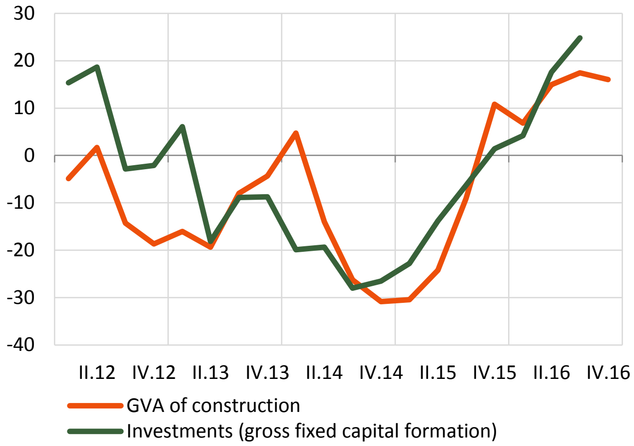
Industry trends largely determined the trade sector performance. The growth in trade GVA eased to 3.8% yoy. However, the wholesale and retail trade turnover continued to grow rapidly (respectively, by 9.6% yoy and 5.1% yoy). This situation arose as the trade enterprises cut their profit margin in the face of cost increases in order to keep clients. The activity in both the wholesale trade and retail trade sectors grew as investment demand recovered further and agricultural sales increased. Nevertheless, consumer confidence in the retail trade sector remained subdued amid higher utility tariffs and continued high unemployment.

Selected service sectors made a negative contribution to GDP change. However, the decline in financial and insurance sector GVA slowed sharply (to 6.3% yoy from 24.6% yoy in Q2 2016) due to a low comparison base. Seasonally adjusted data indicate that the financial sector yet has continued to fall compared with the previous quarter. However, compared to the last year, the financial results of banks in particular, were much better (for the first nine months of 2016 commission and other incomes already increased in annual terms compared to a fall for the first 6 months).

Estimates for Q4 2016

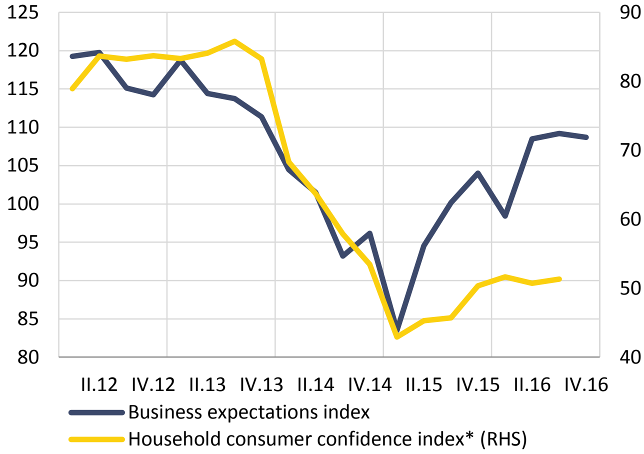
As evidenced by output performance in Q4 2016, agriculture was the key engine of the economy as the late crop harvest was significantly higher than last year. That is a major reason behind an upward revision to NBU's

GVA of Construction and Investments, % yoy



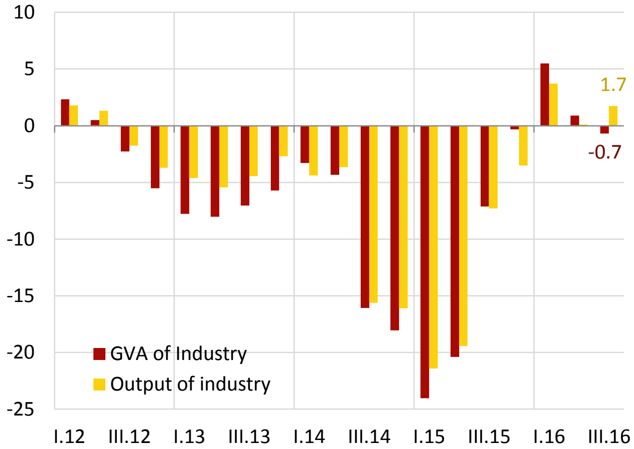
Source: SSSU; NBU staff estimates

Business Expectations and Household Consumer Confidence Indexes



**The consumer confidence index on average per quarter.*
Source: SSSU; GfK Ukraine; NBU staff estimates

GVA and Output of Industry, % yoy



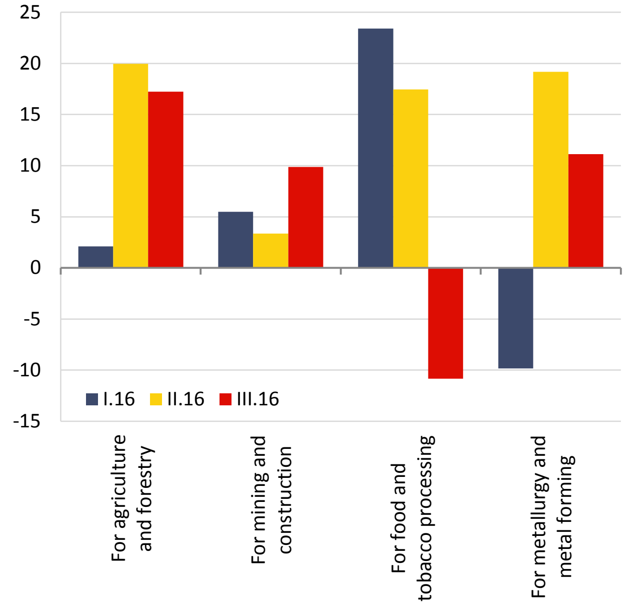
Source: SSSU; NBU staff estimates

GDP growth forecast to around 1.8% yoy in 2016. In addition, in mid-Q4 2016, the effects of factors that weighed on industrial sector activity early in the year faded away. Specifically, a reconstruction of one of the major railways in the east of the country has been completed and the price environment in the world market for metallurgical raw materials and finished products has improved dramatically. This gave a boost to the mining and metallurgical industry and adjacent activities. For other sectors, the weakening of performance is largely expected, due to a relatively high comparison base resulting from subdued economic recovery at the end of last year.

The comparison base can also reduce the investment growth rate. This has already been reflected in the slowdown of construction works.

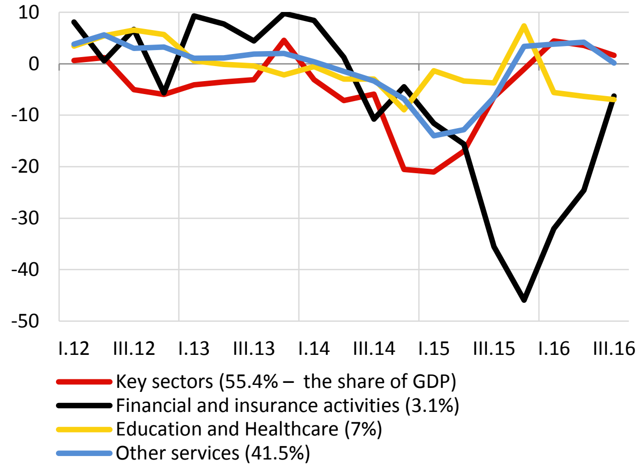
Private consumption and retail trade turnover, in particular, were affected by diverse factors. On the one hand, consumption was further restrained by increased costs of utility services at the beginning of the heating season. On the other hand, consumer demand was supported by the governmental fiscal initiatives (the announcement in late October of the minimum wage rise to 3200 UAH starting with January 2017; the growth of utility subsidies and increased the number of households that receive such subsidies) along with a pick-up in seasonal sales this year.

Manufacture of Machinery for the Certain Activities Needs, % yoy



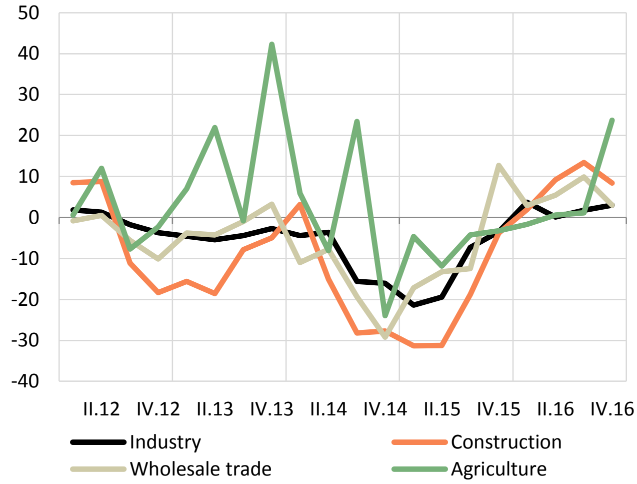
Source: SSSU; NBU staff estimates

GVA Change by Groups of Economic Sectors, % yoy



Source: SSSU; NBU staff estimates

Output by Key Sectors of the Economy, % yoy



Source: SSSU; NBU staff estimates

2.2.3. LABOR MARKET AND HOUSEHOLD INCOME

The gradual recovery of economic activity and improved business sentiment contributed to the recovery of labor demand since the beginning of 2016. Despite this, the seasonally adjusted unemployment rate (calculated according to the ILO's methodology) was growing, indicating significant mismatches between labor demand and supply.

In Q3 2016, nominal household income growth accelerated to 17% yoy mainly due to its largest component – wage. This, together with the easing of inflation pressures, resulted in an increase in real wages and real disposable income of households in annual terms. In Q4 2016, the growth of real wages slowed as expected due to accelerating inflation. The rising wages did not put a significant pressure on inflation from the demand side. First, household income from sources other than wages, increased at a slow pace. Secondly, tariffs for housing and utility services continued to increase while the high unemployment persisted.

To maintain the consumption level in Q3 2016, the households continued to spend the previously accumulated funds by actively selling foreign exchange. Seasonally adjusted, household propensity to save remained flat at around zero.

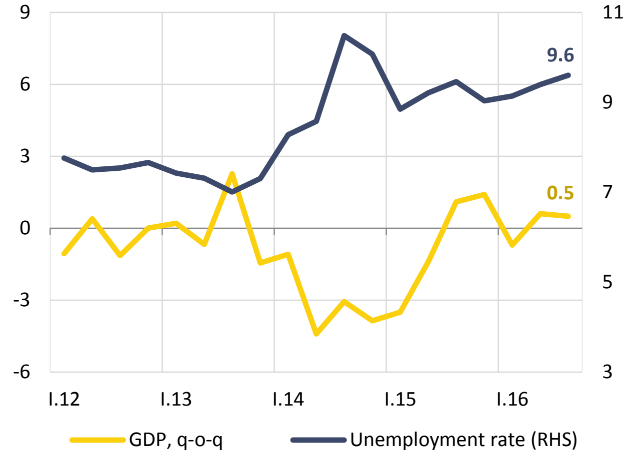
Labor Market[15]

In the first nine months of 2016, the percentage of economically active population and the employment rate decreased slightly (down by 0.9% yoy and 1.1% yoy to 18 million persons and 16.3 million persons, respectively), primarily as a result of demographic processes.

Overall, throughout 2016, the movements of the labor market indices reflected the impact of seasonal factors. Thus, household economic activity and employment traditionally recover in Q2-Q3 thanks to the seasonal upturn in labor demand, primarily, in agriculture and construction, followed by a decline late in the year. In the last two years, seasonally adjusted economic activity and employment rates varied within a narrow range of 0.7 pp. Similarly, in 2016 the total number of staff employees stayed virtually flat accounting for almost half of all the employed (7.8 million people, as of the end of 2016).

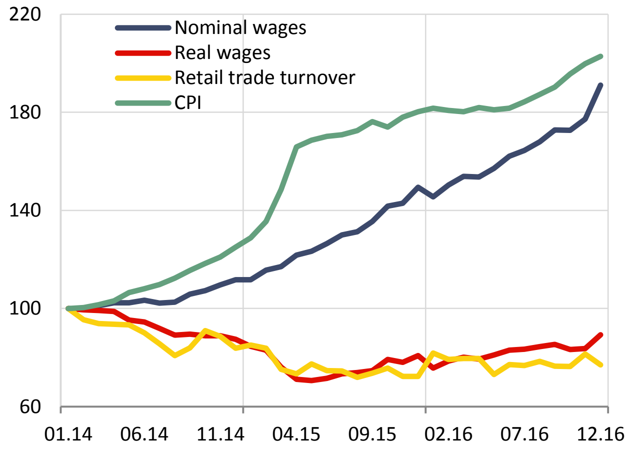
For the second consecutive quarter, the ILO unemployment rate (in percent of the economically active population aged 15 to 70) decreased to stand at 8.8% in Q3 2016. The decline was driven by the seasonal increase in demand for labor in agriculture and construction. This, in turn, manifested itself in the growing demand for the male labor as well as the labor in rural areas. Meanwhile, the seasonally adjusted unemployment rate grew gradually since early 2015 to reach 9.6% in Q3 2016. This may be indicative of the persistent disproportions in the labor market, in particular, in the regional perspective, which intensified for some economic activities and occupational groups. The highest ILO unemployment rate for the first nine months of 2016 was recorded among the

ILO Unemployment* and Real GDP, sa, %



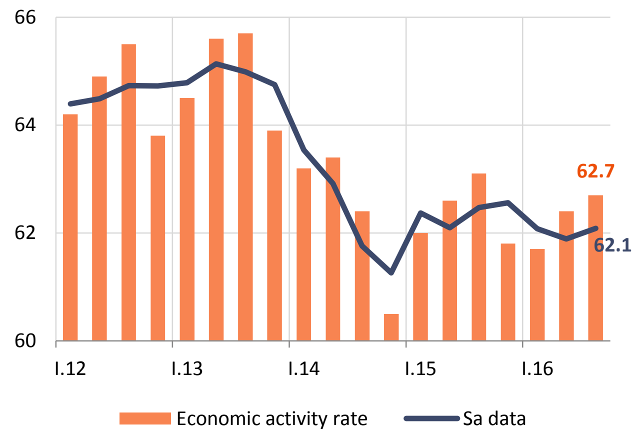
** % of economically active population aged 15 - 70 years*
Source: SSSU, NBU staff estimates

Index of Wages, Retail Trade Turnover and CPI, sa, 01.2014 = 100



Source: SSSU, NBU staff estimates

Economic Activity Rate of Population, % of the population aged 15 – 70



Source: SSSU, NBU staff estimates

[15] From the beginning of 2015, SSSU publishes data excluding part of ATO zone; therefore, some labor market indicators may be underestimated.

young people aged 15 – 24 years (with 22.8% facing difficulties in the post graduate employment) and, in the regional breakdown – in Luhansk and Donetsk oblasts (16.1% and 14 %, respectively, in view of the military hostilities in the east of Ukraine), as well as in Poltava and Kirovohrad oblasts (12.8% and 12.5%, respectively).

According to SESU data, in 2016 about a third of current vacancies was concentrated in the city of Kyiv, Dnipropetrovsk and Lviv oblasts; by economic activities - in industry and trade. The highest number of applicants per vacancy, according to the Internet data, was recorded in jurisprudence (88 persons), in financial and banking sectors (44 persons).

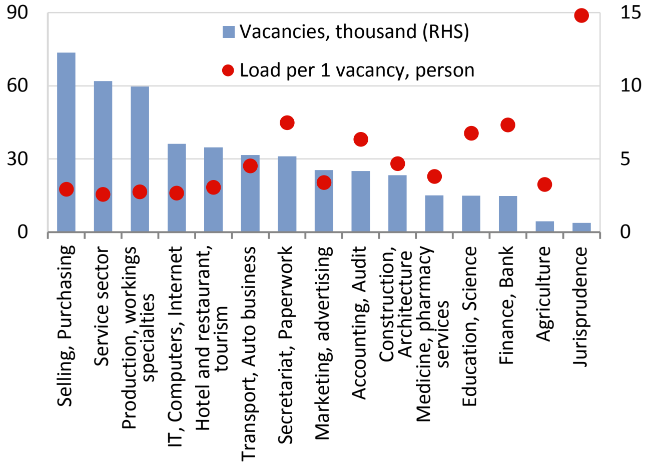
In early 2016, both the data of the State Employment Service of Ukraine (SESU) and job search websites provided evidence of some recovery in demand for labor.[16] In H2 2016, these trends strengthened. For instance, the SESU reported that the number of job openings in 2016 increased by 39% yoy, with the number of registered vacancies up by 50-70% yoy according to the websites of private recruitment agencies. However, the number of applicants per vacancy fell by 30-40% according to the data of both the SESU and job-search websites.

Alongside increased demand for labor, the online job-seeking activity moderated, which might indicate the lessening of massive layoffs in the labor market.[17] Thus, according to the SESU data, in 2016 the number of employees that received planned lay-off warnings declined by 22% to 343,000 persons compared to the same period of the previous year. The employees in public administration and defense, and those employed in mandatory social insurance, represented over half of those who were notified of their job loss. In 2016, some of the institutions returned their employees to work full time. According to SESU, in January – September 2016, the number of workers moved to the part-time workday (week) due to economic reasons decreased against the previous year (to 5.7% of the average staff number). This form of employment was the most common trend in the R&D and industrial sector; by regions – in Luhansk, Zaporizhia and Donetsk oblasts.

Household income and savings

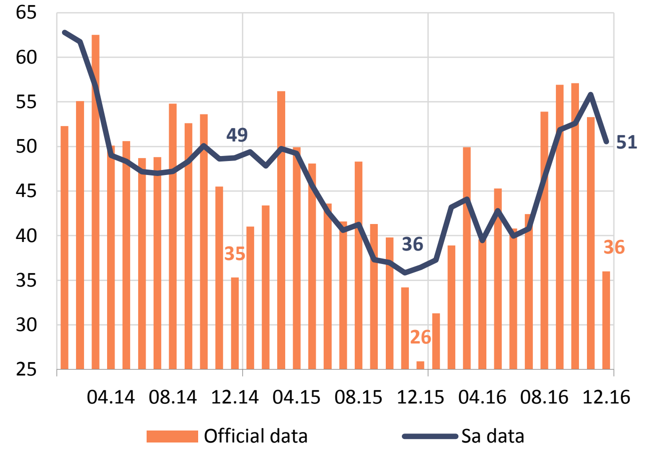
In the composition of household income, growth of its largest component – wage – accelerated to 24.9% yoy in Q3 2016 (accounting for 40.8% in the household nominal income). However, household income from sources other than wages grew at a slower pace. Specifically, subsidies and other received current transfers accounting for 32.4% of nominal household income rose by 16.4% yoy. The average pensions increased by only 3.2% yoy (as of 1 October 2016), although in Q4 2016 the growth of pensions accelerated to 7.5% yoy (as of 1 January 2017), as the increase in minimum pensions occurred in

Vacancies on the Websites of Private Job Agencies and the Load per 1 Vacancy for Activities as of 27.12.2016



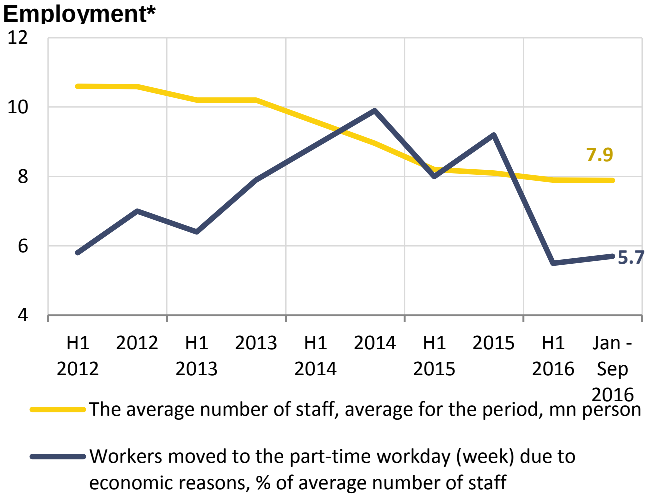
Source: work.ua, NBU estimates

Labor Demand from Employers, end of month, thousand person



Source: SSSU, NBU estimates

The Average Staff Number and Level of Forced Part-Time Employment*



Excluding Crimea and Sevastopol and also part of ATO zone since 2015
Source: SSSU

[16] Currently, searching for jobs online is one of the most effective ways of finding a job, so, recently, the increasing number of unemployed as well as employed have been searching for jobs online, without registering at the State Employment Service of Ukraine. This can be explained by the requirements people have to meet in order to get registered / retain the unemployment status, as well as the unwillingness of some people to contact public employment offices because they offer low-paid jobs and a low level of unemployment benefits.
[17] Research of HeadHunter Ukraine.

December 2016, whereas in 2015, such an increase occurred in September.

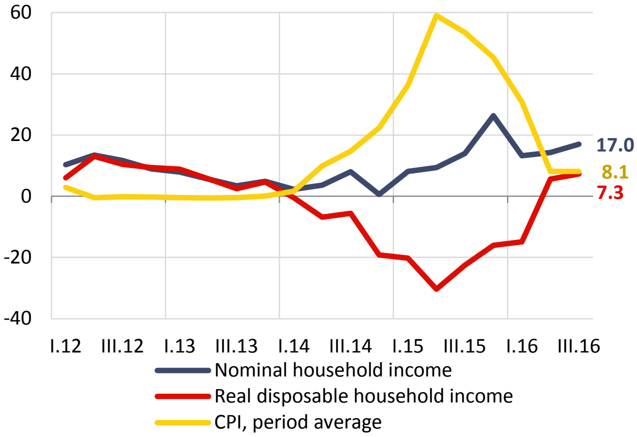
In Q3 2016, household real disposable income and real wages, as a part of household income, kept on increasing (by 7.3% yoy and 15.5% yoy, respectively). Keeping inflation at single-digit levels for the second consecutive quarter against the background of rising nominal indicators contributed to this dynamics.

In Q4 2016, the average wage (per permanent employee)[18] continued to grow both in nominal and in real terms, albeit at a slower pace (20.8% yoy and 5.2% yoy, respectively). The highest growth was recorded in public administration and defense (particularly due to increased wages of the employees of the National Police and other security forces), and in the information and telecommunications area. Also, in Q4 2016, the wage growth was supported by increased minimum wage (by 10.3% to UAH 1600, on 1 December 2016).

Meanwhile, since the end of 2014, consumption of goods and services by households outpaced household incomes against the backdrop of rising utility costs and prices for some goods. This prompted households to increasingly use their savings accumulated in the previous years in order to maintain the consumption level.[19] In Q3 2016, households continued to actively sell foreign currency (the excess of FX sales over FX purchases in Q2-Q3 2016 was the highest since 2002, although down slightly in Q3 compared with Q2).

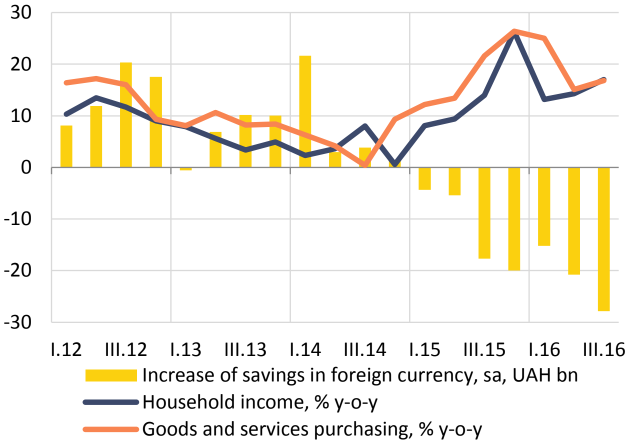
However, in Q3, household cash deposits and security holdings continued to increase as a share of household financial assets. This, together with the growth of non-financial assets primarily held by households engaged in farming (that is traditional for Q3) boosted the growth of savings to UAH 16.5 bn. However, a seasonally adjusted index of household propensity to save remained at near-zero levels for the second consecutive quarter.

CPI, Nominal and Real Disposable Income, % yoy



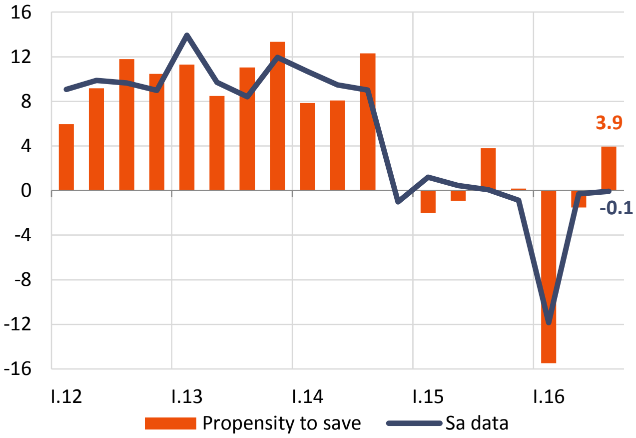
Source: SSSU

Household Income, Goods and Services Purchasing, Increase of Savings in Foreign Currency



Source: SSSU, NBU staff estimates

Household Propensity to Save*, %



** Savings to household disposable household income ratio*

Source: SSSU, NBU staff estimates

[18] The growth rate of wages within the structure of incomes and nominal average wages (per permanent employee) differ as the result of methodological peculiarities during the corresponding calculations. Thus, calculation of wages as a part of household incomes was performed on the basis of a wider sample of information. In particular, cash coverage of military staff and freelance staff, payments for temporary disability, wages of individual entrepreneurs, and other payments, which are disregarded when calculating average nominal wages (per permanent employee) are taken into account.

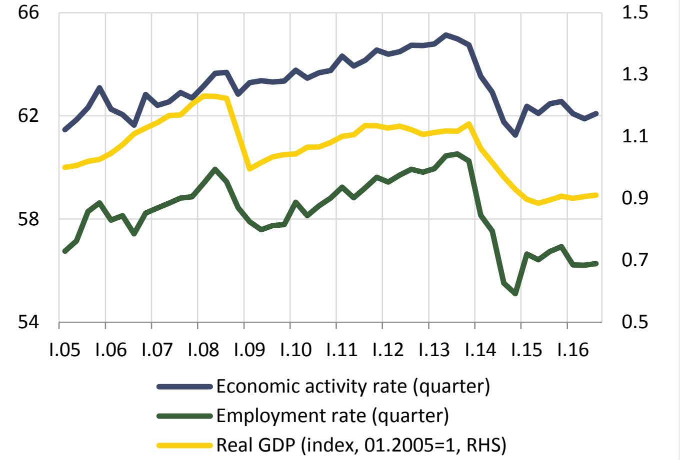
[19] According to the research conducted by GfK Ukraine, the households that could accumulate savings without limiting any expenses decreased by 3 pp in Q3 2016, compared with the previous quarter, and by 7 pp compared with 2014.

Employment in Ukraine[20]

The economic situation in the country has a significant impact on the labor market. In 2000 – 2008, economic growth in Ukraine stimulated a gradual increase in the household economic activity rate and the employment level. Thereafter the economic crisis caused a rapid decline in these indicators in 2008 – 2009 and in 2014, exacerbated by the Crimea annexation and military hostilities in the east of Ukraine in 2014. These regions and a part of households were excluded from the statistical surveys with a significant effect on demographic and social indicators. In particular, the population of Ukraine decreased by 2.5 million persons and the economically active population dropped by 2.3 million persons.

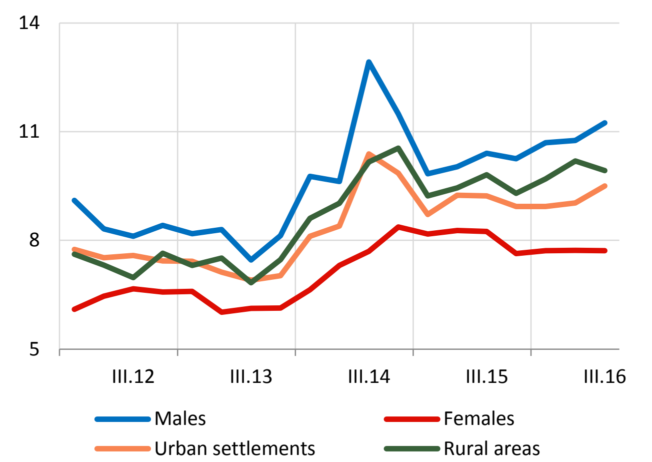
The deep economic crisis caused a faster reduction in the number of employed from the end of 2013 (by 3.5 million persons) compared with a reduction in population and growth of unemployment (according to the ILO methodology). Unemployment among men and rural citizens increased to a greater extent. The unemployed referred to economic reasons and free consent as the most common causes for layoffs. Each third unemployed represented industry or trade with young people aged 15 to 35 accounting for more than half of the unemployed (according to the ILO methodology).

Economic Activity and Employment Rate, Real GDP*, sa, %



Excluding Crimea and Sevastopol since 2014 and also part of ATO zone since 2015
Source: SSSU, NBU staff estimates

Unemployment Rate by Sex and Residence, sa, % of the economically active population aged 15 – 70



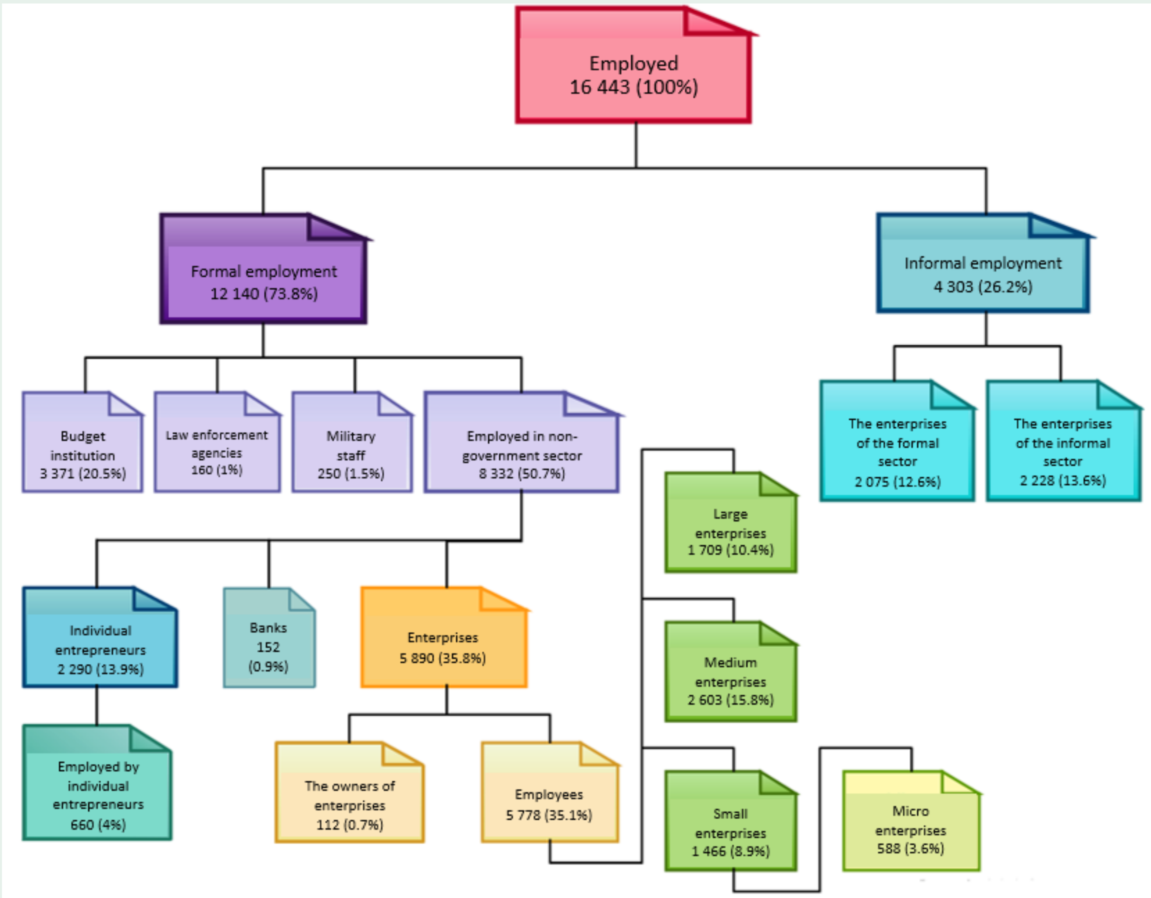
Source: SSSU; NBU staff estimates

The findings of the selective household economic activity survey for the period since 2015 suggest that the number of employed population exceeded 16 million persons, while the employment rate stood at around 57%. After increasing marginally following a sharp decline in 2014, the employment rate was flat in the past two years, significantly lagging behind the pre-crisis indicators. To reach the pre-crisis employment level, Ukraine’s economy should generate about 0.8 million extra jobs. Most of the currently employed population in Ukraine (nearly three-fourth of total population) is engaged in the formal sector of the economy. Among them, two-thirds belong to the employees working at businesses (variously sized enterprises, individual entrepreneurs, banks, etc.), while employees in the public sector (education, health care, civil servants, military personnel and law enforcement) constitute a third of the population.

The composition of the employed by economic activities remained virtually unchanged in 2012-2015. In 2015, nearly 55% of the employed worked in agriculture, forestry and fishery, industry and trade. Compared to 2013, the layoffs were recorded in all economic activities, with the majority of them in construction (by 27.8%), financial and insurance activities (by 23.4%) and trade (by 22.9%). This was mainly caused by a more pronounced decline in these areas. The lowest reduction in employment was recorded in public administration and defense, and social insurance, which could be explained by the increased number of military personnel in 2015.

[20] Employed - persons aged 15 to 70 working for a compensation or without any payment for at least one hour during week in review (according to household economic activity survey), or being temporarily absent from work, i.e., had a formal job, own business (self-employed), but did not work over the period surveyed for some reason.

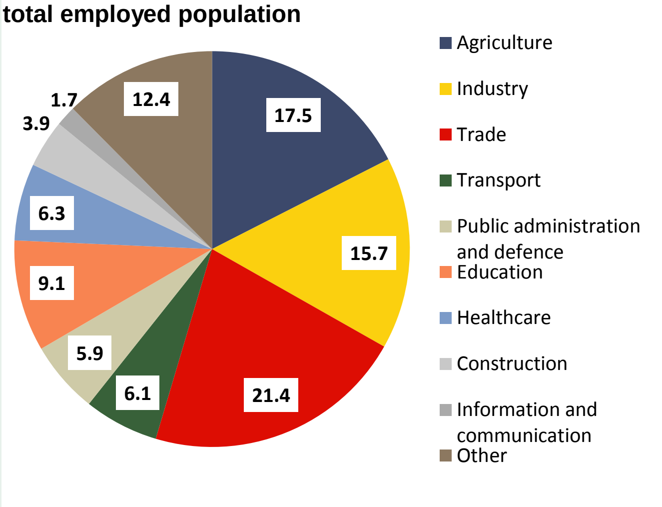
Employment breakdown in Ukraine in 2015, thousands of persons (in % to total number of employed)



Source: SSSU; NBU staff estimates

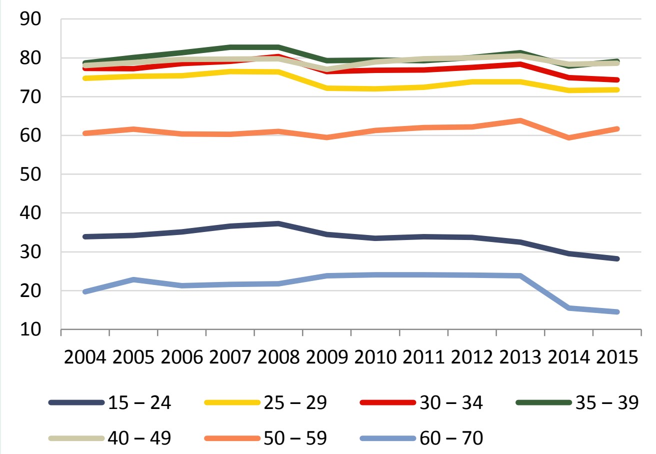
Across age groups, the highest level of employment remained among the middle-aged population of 35 – 49 years, male, and urban citizens, while the lowest level of employment was recorded among the people of 60 – 70 years, young people of 15 – 24 years, female, and rural citizens. In 2014, major changes in employment occurred among the people of 60 – 70 years, partly due to a large number of employed persons of this age in AR Crimea and Sevastopol City, and the young people with a minimal work experience. A faster growth in employment among people of 50 – 59 years in 2013 and 2015 could be explained by changes in the retirement age for women.

Employed Population by Economic Activity in 2015, % of total employed population



Source: SSSU, NBU staff estimates

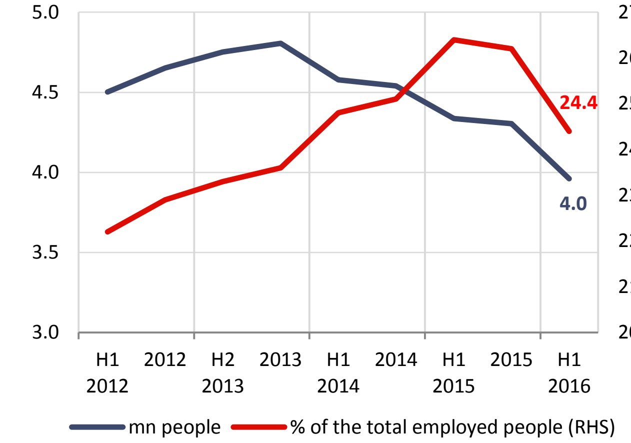
Employment Rate by Age, %



Source: SSSU

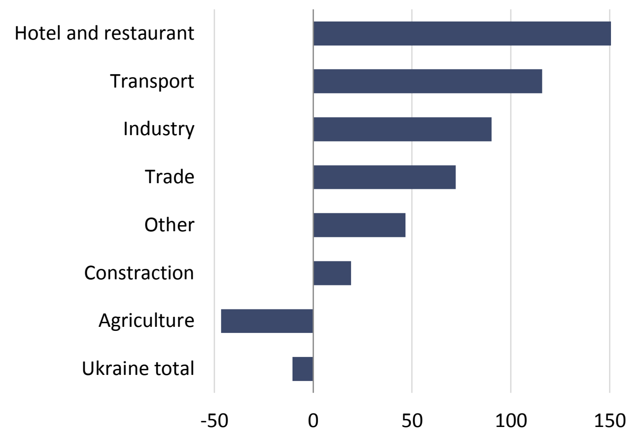
Over the last decade a share of informal employment gradually grew, accelerating significantly in 2014. It was caused not only by the economic crisis, but also by an active migration of the working population (informal migration is included in calculation of informally employed). A partial decline in the share of informal employment in 2016 can be attributed to the strengthened role of agriculture.

Number of Informally Employed People*



** Excluding Crimea and Sevastopol since 2014 and also part of ATO zone since 2015*
Source: SSSU, NBU staff estimates

Change of Informal Employment by Activities in 2015 Compared to 2013, %



** Excluding Crimea, Sevastopol and part of ATO zone since 2015*
Source: SSSU, NBU staff estimates

A gradual economic recovery in Ukraine has brought some positive developments in the labor market, including a pick-up in labor demand. However, a number of trends in employment is quite alarming, in particular: a rapid decline in employment and increased unemployment among the young people and the population of the most active age (15 – 24 years and 30 – 34 years); high concentration of employed in trade and budget sector with little progress in highly productive areas; a relatively high level of informal employment prevailing in agriculture, trade and construction. Against the background of negative demographic processes in the future, these factors will very likely put constraints on Ukraine's economic potential growth. According to the OECD proposals[21], to increase employment and labor productivity, the governments should implement structural reforms in the labor market, in particular, facilitate employment for the most vulnerable strata of population, such as the young people and low-skilled persons, help employees optimally apply their skills and abilities, improve the job search system for the unemployed, reduce the entry barriers for new businesses, etc. Such measures will have a long-term positive effect, including for the country's competitiveness.

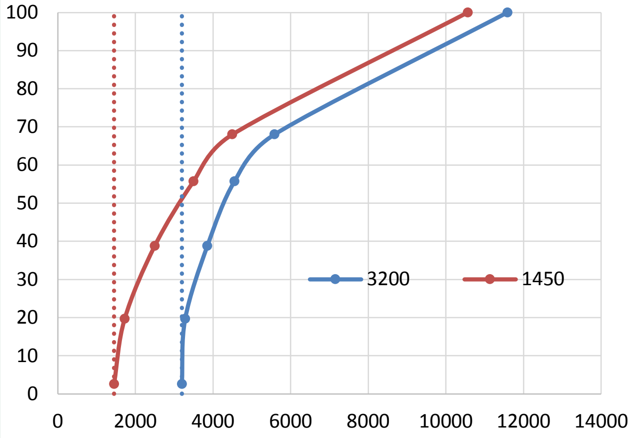
[21] http://www.oecd-ilibrary.org/employment/oecd-employment-outlook-2016_empl_outlook-2016-en.

Macroeconomic consequences of minimum wage increase to UAH 3,200

According to the NBU's estimates, a twofold increase in minimum wages on 1 January 2017 will have a tangible impact on employment, household income, and macroeconomic variables. These estimates are also consistent with the expectations of enterprises [22] according to the results of the Business Outlook Survey, Q4 2016. The survey was held when the Government's intentions to raise the minimum wage were made public, therefore enterprises incorporated this information in their expectations for the next year.

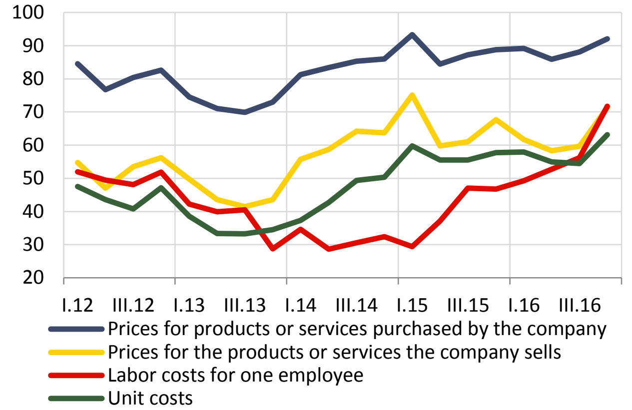
According to the NBU's estimates, the labor market will be simultaneously influenced by factors having opposite effects. Increase in the minimum wage will push the nominal wage up by an average of 23% in 2017 (much faster than predicted earlier). For low-paid employees[23], such a growth will be more significant (by 45%). Companies also expect an increase in production costs in all activities primarily due to higher labor costs.

Distribution of Employees by Wages, cumulative, %



Source: SSSU; NBU staff estimates

Changes in Prices and Production Costs in the next 12 months, % (balance of responses between those indicating "will increase" and "will decrease")



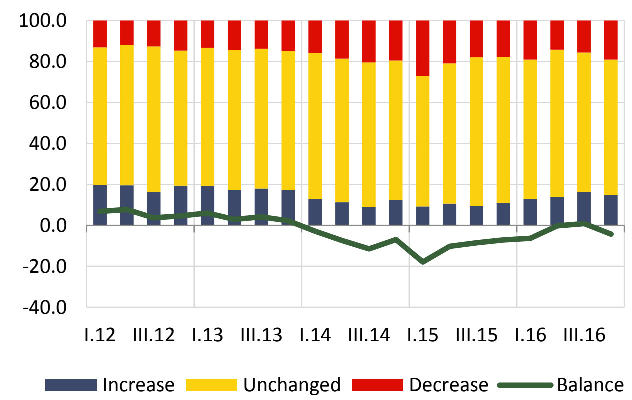
Source: Business Outlook Survey results at NBU's enterprises

According to the NBU, rising labor costs, especially for small and medium businesses, will lead to a deeper decline in employment than projected earlier. In 2017, the total number of employees in the formal sector of the economy in 2017 will decrease by 9% compared with 2016. The minimum wage and related legal changes will contribute 5.4 pp (or about 630 thousand persons) to this decrease. The decline in the official employment will be disproportionate with SMEs and private entrepreneurs accounting for the major contribution , as they face a nearly double single tax burden. However, the decline is partly offset by increased informal employment. Additionally, the average wage growth may bring back to the labor market some of desperate people who will start a job search, and, consequently, the unemployment rate might rise further. Overall, according to the NBU's estimates, employment will decline by 5% yoy, which corresponds to 10% of ILO unemployment rate.

Q4 2016 saw the Business Expectations Index decline (to 108.7%, down from 109.2% in Q3), primarily due to worsening employment expectations.

The effect of reduced employment will also be uneven across different types of activities. The share of low-income workers is the highest in agriculture, hotel and restaurant business, real estate, construction and trade. However, these sectors are characterized by a substantial informal employment. According to poll results, a relatively higher share of agricultural, mining, construction, retail trade companies expect reduction in the number of employees (28.4%, 23.9%, 24.1% 27.8% of respondents respectively compared to 19% for Ukraine average). In its turn, industry and transport have the largest percentage of large and medium enterprises, including export-oriented, that are less prone to informal employment. In addition, the average

Change in the Number of Employees in the next 12 months, % responses



Source: NBU's Business Outlook Survey

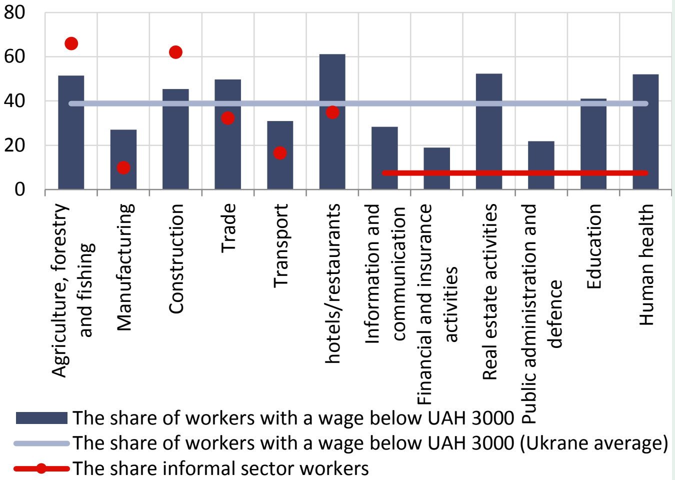
[22] Regular quarterly survey of enterprises' managers assessing the current and future business activity, inflation and exchange rate expectations, changes in the economic situation of the country was conducted from 8 November 2016 through 8 December 2016. During the survey, 682 enterprises in 22 regions of Ukraine (excluding temporarily occupied Autonomous Republic of Crimea and the City of Sevastopol, as well as Donetsk and Luhansk oblasts) were polled, representing the economy in terms of main types and areas of activity and differences in size depending on the staff number. The findings reflect the opinions of respondents only (managers of Ukraine's enterprises) in Q4 2016 and do not serve as NBU forecasts or estimates. For more details, please see – https://bank.gov.ua/doccatalog/document?id=42352951.

[23] Some 42% of full-time employees receive the wage of UAH 3,200 while two-thirds of staff (67%) receive the wage lower than UAH 5,000.

wage level of the employees of these enterprises is rather high. In these sectors, higher minimum wage will primarily raise the production costs.

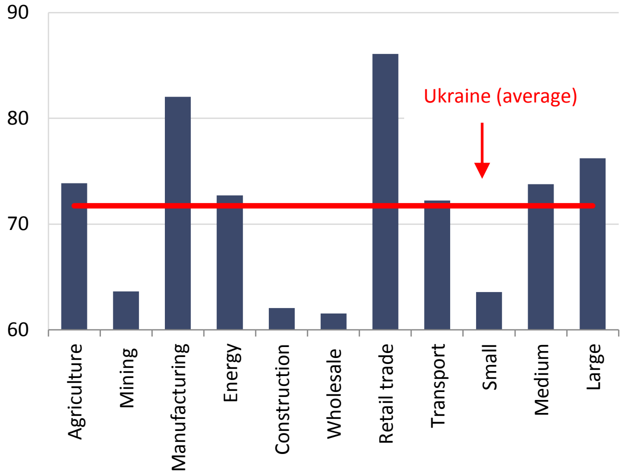
Meanwhile, the effect of rising incomes of the most vulnerable households on consumption will outweigh the unemployment effect, according to the NBU's estimates. Higher income will primarily stimulate consumption of domestic foods.[24]

Distribution of Salaries and Informal Sector Employment by Types of Activity, % to total number of employed



**For wages - data for June 2016, for informal employment - 2015.*
Source: SSSU, NBU

Changes in Labor Costs by Types of Activity, balance of responses,%

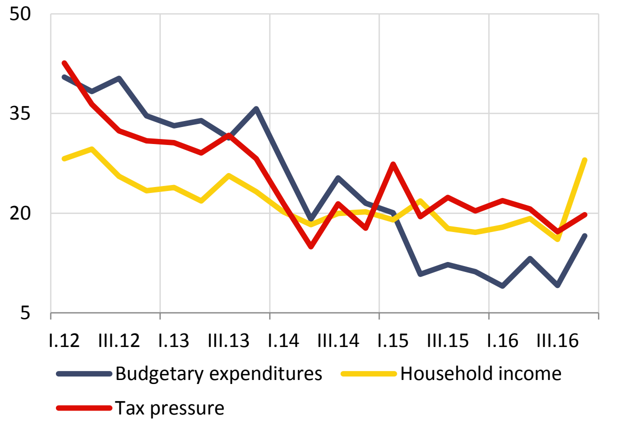


Source: NBU's Business Outlook Survey

According to the NBU's estimates, due to the minimum wage increase, disinflation will proceed at a slower pace than previously projected. In addition, higher consumer expenditures will enhance the role of private consumption in GDP growth, while the impact on the consolidated budget will be neutral.

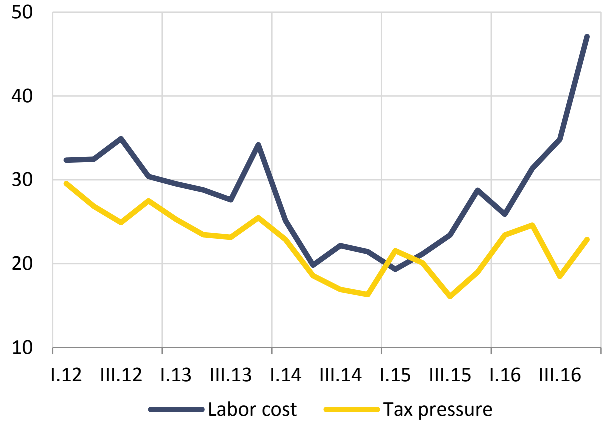
Inflation expectations of enterprises have already increased. According to the survey, the enterprises will raise prices by 16.2% in the next 12 months (in Q3 2016 - 13.8%). Household incomes were viewed as having a stronger influence on consumer inflation estimates while labor costs had a more prominent role in determining producer price inflation.

Impact of Factors on Inflation Expectations, % (share of enterprises that noted this factor)



Source: NBU's Business Outlook Survey

Impact of Factors on Producers' Price Rise, % (percentage of enterprises that noted this factor)



Source: NBU's Business Outlook Survey

Despite the expected moderate macroeconomic impact of higher minimum wages in 2017, the medium-term risks have increased. Thus, raising the minimum wage deepens the wage gap between skilled and unskilled workers, while simultaneously increasing the gap between the pension compensation and the minimum wage. This involves risks of increased social tensions and intensified pressure on the government to further increase social payments that might not correspond to the underlying productivity growth, thereby leading to building inflation pressures.

[24] Consumption pattern of low-income households has significantly shifted towards food consumption (by more than 60%), with domestic foods dominating in their consumption. Therefore, pay rise for the poorest strata will have the major effect on consumption of domestic foods (as per SSSU, a share of foods produced in Ukraine and sold through the distribution network of enterprises made 85% in 2015).

2.2.4. FISCAL SECTOR

In 2016, fiscal policy was oriented at ensuring sustainable public finances, despite certain fiscal easing due to increased utility subsidies to households and expansion of support to the Pension Fund. This was evidenced by substantial primary surplus (consolidated budget balance less debt servicing expenditures) and a moderate increase in the overall consolidated budget deficit.

A gradual improvement of macroeconomic conditions along with tax adjustments introduced at the beginning of the year significantly boosted tax revenues. Combined with the renewal of NBU's transfers, this drove consolidated budget revenues growth noticeably higher in Q4. In 2016, overall, the revenues growth was higher than expected.

At the end of the year, particularly in December, expenditures traditionally surged. However, in annual terms, their growth decelerated in Q4. This is related to more evenly distributed spending in 2016 when compared to 2015.

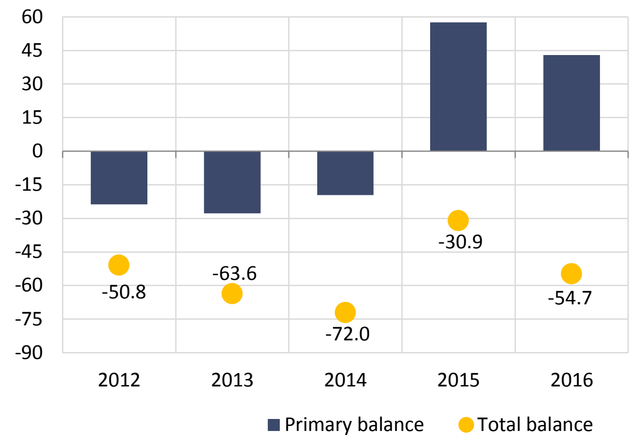
In contrast to the previous years, local budgets recorded a substantial deficit in Q4 due to rapidly rising expenditures in late 2016, although local budgets closed the year with a surplus. At the same time, the state budget in Q4 showed a slight deficit (UAH 6.7 bn). Overall, in 2016, the state budget deficit grew to USD 70.1 bn, albeit lower than expected. According to NBU estimates, IMF's criteria for the consolidated budget deficit were met with a margin.

Revenues

Contrary to the previous quarter, the consolidated budget revenues growth accelerated considerably (39.9% yoy) thanks to both tax and non-tax proceeds. The latter surged by 81.8% yoy, mainly due to the NBU's transfers in Q4, while the transfers in the same quarter of the last year were marginal.[25]

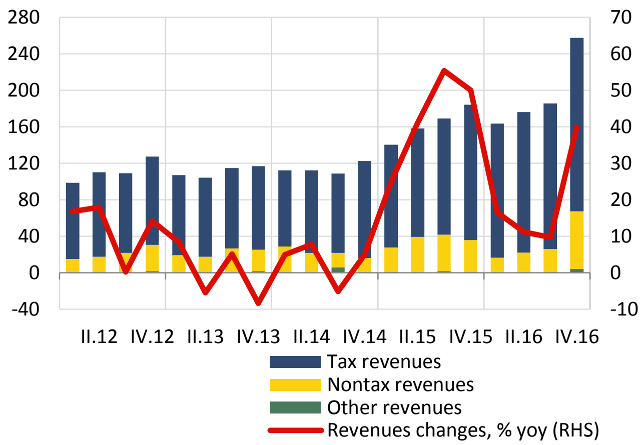
Tax revenues accelerated (to 28.3% yoy), primarily due to the improved macroeconomic situation. For instance, the growth of proceeds from the corporate income tax significantly accelerated, the annual approved volume[26] was exceeded by 11.9%. In addition to the changed approach to administration, this was primarily caused by a noticeable improvement in the financial standing of enterprises, including state-owned enterprises.[27] Planned prepayment of this tax by enterprises in November-December was an additional factor behind the increase of proceeds.[28] Receipts from personal income tax maintained high growth rates (though the pace slightly decelerated quarter-over-quarter) as nominal wages

Consolidated Budget Balance, UAH bn



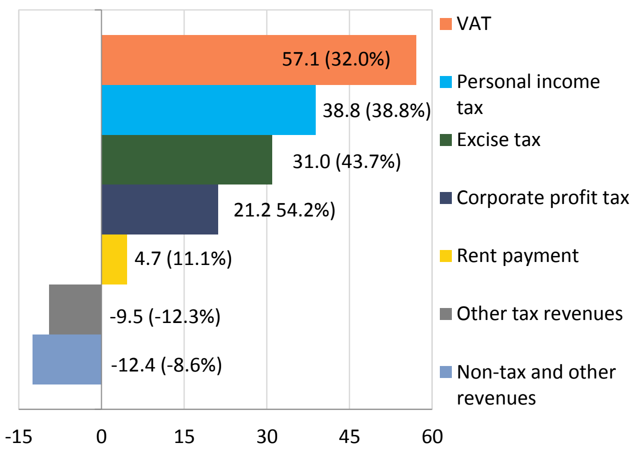
Source: Treasury; NBU staff estimates

Consolidated Budget Revenues, UAH bn and % yoy



Source: Treasury; NBU staff estimates

Consolidated Budget Revenues in 2016, compared with the previous year, UAH bn and %



Source: Treasury; NBU staff estimates

[25] Pursuant to Article 5[1] of the Law of Ukraine *On the National Bank of Ukraine*, the transfer of distributable profit to the State Budget of Ukraine is carried out only after external audit and the NBU Council's approval of annual financial results, as well as after withholding profit to maintain general and other provisions in the amounts, specified by the law. In 2015, the major portion of the NBU's transfer was made in Q2 and Q3.
[26] Specifically, the corporate income tax proceeds accelerated significantly both to the state and consolidated budgets. However, the law approves only the state budget indicators.
[27] Profits of profitable enterprises before tax grew by 16% in January–September 2016 against January–September 2015.
[28] According to the Tax Code amendments that came into effect early in 2016, companies during the first three quarters should pay the tax for the previous quarter, while in Q4 they should transfer a pre-payment in the amount equal to 2/9 of tax paid in the first three quarters of the year shall be made.

increased further. These receipts to the state budget also exceeded the planned annual level (by 6.6%).

The excise tax proceeds to the consolidated budget kept on growing rapidly (up by 39.1% yoy in Q4) due to a pick-up of retail trade, a moderate hryvnia depreciation at the end of the year and higher imports. This also influenced the receipts from taxes on international trade, which continued to grow at a high pace under similar conditions (excluding proceeds from import duty surcharge in 2015). However, overall in 2016, the receipts from tax on international trade, as expected, fell down due to the abolition of the above mentioned duty.

Uneven VAT refund produced a significant impact on the dynamics of VAT revenues in 2016. Thus, in Q4, record cash amounts were refunded (UAH 30.7 bn), compensating for delays for the previous months.[29] Despite high refund amounts, revenues gains from this tax still increased as trade picked up, inflation accelerated and hryvnia depreciation pressure intensified at the end of the year. Additional factors supporting the gain in VAT revenues were raising minimum prices for alcohol in December and partial cancellation of the special VAT regime for agricultural producers. Although in force since January 2016, the cancellation of the special regime exerted the most noticeable effect on tax revenues in Q4 (UAH 4.9 bn was received, or 55.1% of the annual revenues) due to improved performance of agriculture at the end of 2016.

Among major taxes only rent payments decreased in Q4 compared to the corresponding quarter of the previous year. However, overall annual revenues increased due to high rent payments in Q1. At this, planned targets were not reached, primarily due to rentals for oil and gas extraction.

High revenues of the consolidated budget in Q4 compensated for their restrained growth in the middle of the year, resulting in an overall increase by 20% in 2016.

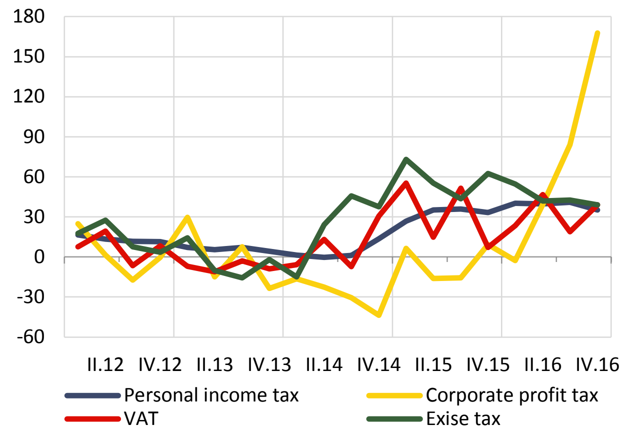
Expenditures

Despite the traditional growth of consolidated budget expenditures at the end of the year, their year-on-year growth decelerated in Q4 2016. Primarily, the growth in current expenditures slowed down to 6.5% yoy, in particular, debt servicing expenditures. In addition, a comparison base effect produced a significant impact, since the expenditures surged in Q4 2015.

In Q4, debt servicing expenditures decreased as expected driven by the foreign component.[30] By contrast, the increase in domestic debt servicing expenditures was moderate despite the surge in government securities issuance in the previous periods, including those denominated in foreign currency.

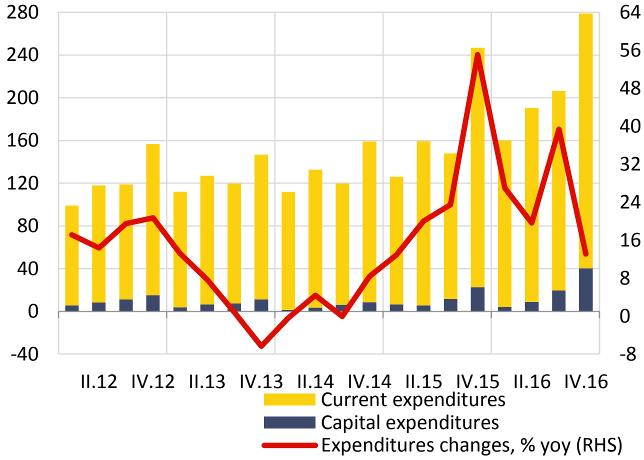
The growth rates of expenditures on usage of goods and services (to 10.5% yoy) significantly declined as expenditures were restrained across virtually all

The Main Budget Taxes, % yoy



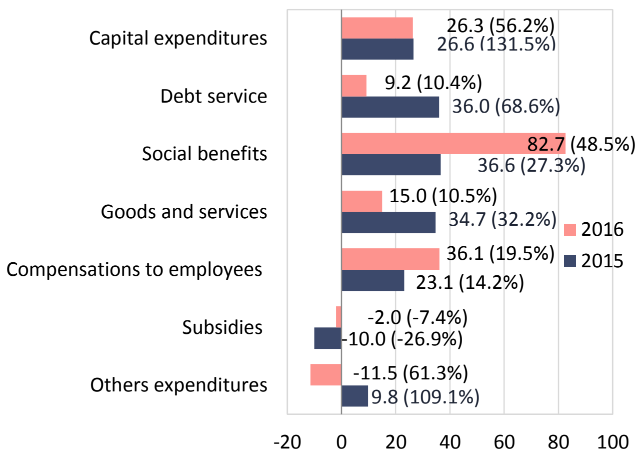
Source: Treasury; NBU staff estimates

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



Source: Treasury; NBU staff estimates

Consolidated Budget Expenditures, economic classification, 2016 compared with 2015, UAH bn and %



Source: Treasury; NBU staff estimates

[29] As a consequence, VAT arrears fell to UAH 12.2 billion as of 1 January 2016 from UAH 15.2 billion as of 1 October 2016 and UAH 12.9 billion at the beginning of year (peak arrears in 2016 arose as of 1 December 2016 and made up UAH 18.9 billion).
[30] Within the framework of the public and publicly guaranteed debt management, in November 2015 the Ministry of Finance issued government bonds paying coupons every six months (on March 1 and September 1).

components. Moreover, current transfers to enterprises and other current expenses decreased further.

In Q4, the expenditures on social sensitive areas continued to grow at a relatively high pace. Q4 saw the highest recorded quarterly figure of transfers to the Pension Fund, although their annual amount remained within approved targets despite the advanced transfer of the part of January`s pensions in in December (UAH 10.4 bn). Besides, the expenditures on benefits and subsidies to households significantly increased (by 53% yoy) driven by the onset of a new heating season and growing number of households that apply for subsidies. Budget expenses on salaries grew rapidly (up 24.1% yoy), particularly due to higher allowances for the Ukrainian military personnel, but payroll charges decreased (by 23.4% yoy).

The volume of capital expenditures in Q4 exceeded expectations while their growth rates were high (77.4% yoy) despite the high comparison base. Capital expenditures were made primarily at the expense of local budgets (capital expenditures in local budgets grew more than twice). In particular, the funds were used to improve the road infrastructure.

In Q4, according to the functional classification, expenditures on social security (22.6% yoy), public order and safety (35.4% yoy), and economic activity (25.8% yoy) remained the fastest growing ones.

Overall in 2016, despite a traditional increase in expenditures at the end of the year, expenditures were distributed more evenly than in the previous year. Consequently, annual growth rates of expenditures even slowed down in late 2016. In 2016, expenditures went up by 22.9% yoy (up by 30% yoy in 2015).

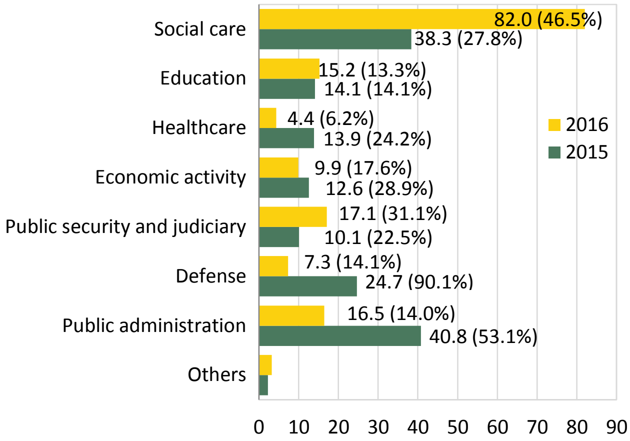
Balance

In Q4, consolidated budget deficit increased slightly driven by local budgets, in contrast to the previous years. The local budget deficit not only exceeded the public budget deficit in Q4, but became the highest since 2012. However, due to low state budget deficit (USD 6.7 bn), the Q4 consolidated budget negative balance was moderate and lower than in previous years (UAH 23 bn).

Annual negative balance of consolidated budget resulted solely from the state budget deficit (UAH 70.1 bn, lower than expected). According to the NBU's estimates, IMF criteria regarding the consolidated budget deficit were met with a margin.

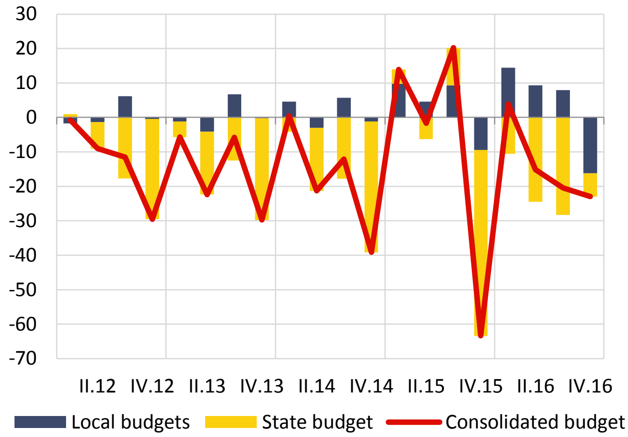
The deficit was primarily financed with the funds raised under debt operations. The bulk of borrowings in the domestic market were securities maturing in over one year, which reduced the budget burden in 2016. Consistent cuts in the NBU's key policy rate in the course of the year helped reduce the costs of resources raised by MoF in the domestic market and, accordingly, of debt servicing expenditures. Also, the government continued issuing domestic debt securities denominated in foreign currency (USD 3.0 bn in 2016). Apart from the securities earmarked to finance the deficit, at the end of the year, government bonds were issued to form the authorized capital of banks (almost UAH 107 bn), and support the

Consolidated Budget Expenditures, functional classification, 2016 compared with the previous year, UAH bn and %



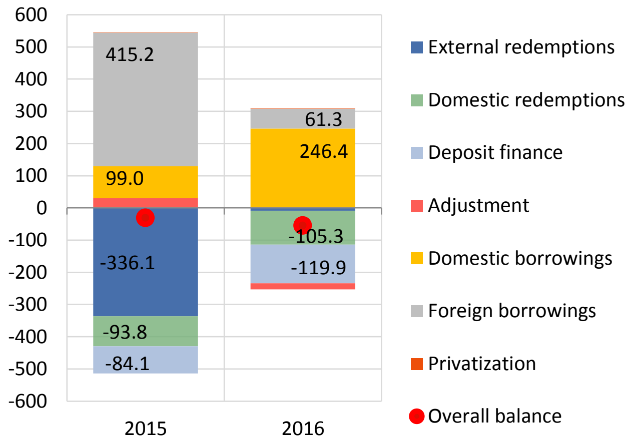
Source: Treasury; NBU staff estimates

Budget Balance Indicators, UAH bn



Source: Treasury; NBU staff estimates

Consolidated Budget Deficit Financing, UAH bn

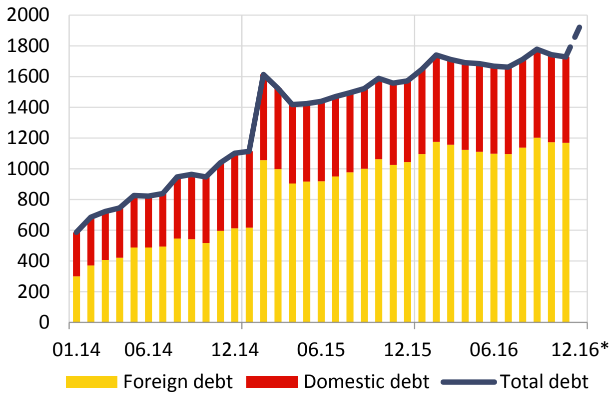


Source: Treasury; NBU staff estimates

DGF (UAH 7.9 bn). Overall, in 2016, the placement of government securities for the quasi-fiscal objectives made up UAH 129.2 bn. Also, funds were raised from foreign debt transactions (under the guarantee of the US Government and in cooperation with the international partners).

This, together with the revaluation effects against the backdrop of the hryvnia weakening led to the increased public and publicly guaranteed debt in 2016.

Public and Publicly Guaranteed Debt, UAH bn and % of GDP

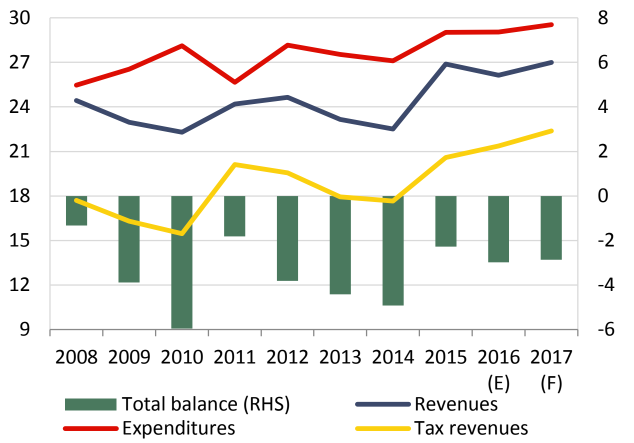


Source: MFU; NBU staff estimates

Key parameters of the State Budget of Ukraine for 2017

The budget approved reflects the government priorities for further strengthening of the public finance. A relatively moderate growth of both revenues and expenditures, despite a twofold minimum wage increase, was proposed. However, the target deficit meets the IMF's requirements (3% of GDP) and is deemed attainable.

The Main Indicators of the State Budget, % of GDP



Source: Treasury; State Budget Law for 2017; GDP in 2016 - NBU estimate and GDP in 2017 - NBU forecast

The key macroeconomic parameters underlying the state budget are the following:

– real GDP growth - 3%;
– nominal GDP - UAH 2,584.9 bn;
– PPI (December to December yoy) - 108.1%.

The 2017 budget includes the following major legal amendments, as opposed to 2016, that served as the basis for the budget parameters:

– the rental rates expressed in absolute values for the special use of forestry, use of water and subsurface not related to the mining of mineral resources, and use of radio frequencies were raised by 12%;

– the excise taxes on alcohol and specific excise rate on tobacco products were raised (by 40%, while ad valorem rate remained at 12%);

– the overall minimum excise tax liability (related to tobacco products) grew by 40%;

– the excise tax on retail sale[31] of fuel was cancelled and excise tax on fuel was raised from 171.5 EUR/1000 L to 213.5 EUR/1000 L (the overall excise rate on fuels was left unchanged);

– the rental payment for the extraction of oil and condensate was reduced from 45% to 29% (for the depth up to 5000 meters) and from 21% to 14% (for the depth of over 5000 meters);

– the charge on FX cash purchase (2%) was cancelled;

– VAT treatment of agriculture was brought in line with the general VAT regime;

– a single register of VAT refunds was introduced;

– the minimum wage raised to the actual subsistence level[32] for the employed persons – UAH 3,200.0;

– certain economic indicators (tax payments, administrative fines, etc.) pegged to the minimum wage were tied to the minimum subsistence level for the employed persons as of 1 January of the calendar year, or peg ratios were halved for the pegs to the minimum wage (relating primarily to the changes in the Tax Code of Ukraine);

– state budget funds allocated annually to support the agricultural producers should account for at least 1% of agriculture output in 2017 - 2021. They will use 20% of such support to purchase domestically produced agricultural machinery and equipment (2017 - 10%, 2018 - 15%);

[31] This change does not apply to other excise goods (alcohol, tobacco products, tobacco and manufactured tobacco substitutes); and the excise tax on retail sales will be 5% of the price in 2017 (the same as in the previous year).
[32] On 11 October 2016, a revised set of foods, non-foods and services for major social and demographic groups used to determine the minimum subsistence wage were updated and approved.

– budgetary subsidies are automatically provided, according to the Registry of beneficiaries of budgetary subsidies, in proportion to the cost of products sold by agricultural producer in the previous 12 months, the appropriation limit for 2018 is UAH 150 million.

Total revenues will grow at a relatively moderate pace (by 18.6% yoy), mainly due to the tax revenues against the backdrop of further economic recovery and tax changes, although not as significant as those in 2015-2016. All the key taxes are projected to grow, with the highest growth expected for the personal income tax, VAT, and excise duty in response to the expansion of the taxation base and higher consumption owing to the minimum wage increase. However, revenues from corporate income tax are expected to increase modestly compared to 2016, which is again caused by minimum wage rise, and, consequently, increased enterprise gross expenditures. Non-tax revenues, as opposed to 2016, are expected to be higher mainly due to larger transfers by the NBU (UAH 45 bn compared to UAH 38.2 bn in 2016). Meanwhile, the ratio of tax revenues to the estimated GDP[33] will rise by nearly 1 pp, which might indicate that the total revenues plan approved is somewhat optimistic.

Despite a twofold minimum wage rise, the total expenditures will increase moderately (by 16.8% yoy). The required increase in spending for increased minimum wages is compensated by the reduced expenditures, primarily, to support of the Pension Fund. This will be caused by the expected increase in revenues due to SSC through broadening the taxation base, as well as the changes in the proportions of contributions for mandatory social security.[34] However, the Pension Fund will be further supported substantially from the budget. In addition, the financial support to the farmers through the final cancellation of the special VAT regime is envisaged. Consequently, the ratio of expenditures to estimated GDP will stay high (29.5% of GDP).

The government's initiative to double the minimum wage was key to defining the parameters of the State Budget of Ukraine for 2017. However, according to the NBU's estimates, the overall effect on public finances is expected to be close to neutral, as higher budget expenses on salaries will be compensated by higher tax revenues, SSC including. Also, certain optimization of expenditures is expected, including due to a further revision of the system of utility subsidies to households and improved standing of the Pension Fund.

Main deficit is proposed to be financed through debt sources, primarily of domestic origin. Privatization returns are also envisaged. But, with a minimum level of privatization proceeds in recent years, the failure to raise new debt create a risk of increased public debt.

According to the NBU's estimates, the deficit target conforms with the IMF's requirements (3% GDP), and the primary surplus remains positive (1.3% GDP). Overall, the performance of the state budget deficit and its keeping within the target level, though bearing some risks, are considered sustainable.

Key parameters of the State Budget of Ukraine

Indices, UAH bn	2015	2016		2017	
	Actual	Law	Actual	Draft 15 September 2016	Law of 21 December 2016
Revenues	**534.7**	**608.0**	**616.3**	**706.3**	**731.0**
yoy change, %	*49.7*	*13.7*	*15.3*	*14.6*	*18.6*
Non-tax receipts	409.4	502.6	503.9	588.0	606.0
yoy change, %	*46.1*	*22.8*	*23.1*	*16.7*	*20.3*
Non-tax revenues	120.0	87.6	103.6	101.6	107.2
yoy change, %	*75.6*	*-27.0*	*-13.6*	*-1.9*	*3.5*
Other income	5.3	17.8	8.8	16.7	17.8
Expenditures	**576.9**	**681.5**	**684.7**	**775.3**	**800.0**
yoy change, %	*34.1*	*18.1*	*18.7*	*13.2*	*16.8*
Lending	**3.0**	**10.2**	**1.7**	**8.6**	**8.6**
Balance ('-' deficit)	**-45.2**	**-83.7**	**-70.1**	**-77.5**	**-77.5**

Source: STSU; VRU

[33]NBU estimate published in the current Inflation Report.
[34] CMU Resolution of 26 November 2014 No. 675 On approval of the proportionate distribution of UST proportions single fee for for mandatory social security.

2.2.5. BALANCE OF PAYMENTS

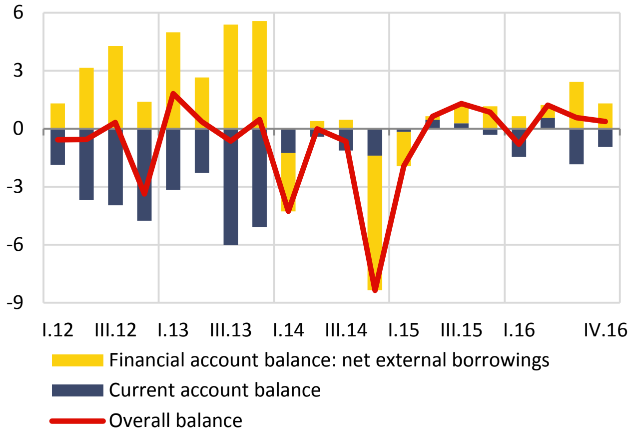
The current account deficit narrowed to USD 0.7 bn, due to a marked reduction in primary income account outflows.[35] Meanwhile, the trade deficit remained at the level of Q3. In annual terms, exports of goods were up for the first time since 2012. This was attributed to a surge in exports of foods (grains and sunflower oil). Imports of goods also grew, driven by higher energy imports.

Overall, exports of goods declined by 5.2% yoy in 2016, due to unfavorable external economic conditions, especially in the first half of the year, and domestic problems related to production and transportation. Across regions, a drop in exports to Russia and other CIS countries continued to push exports down. By contrast, exports to EU countries returned to growth. Stronger domestic demand, primarily investment demand, drove imports of goods up by 3.8% yoy. This widened the current account deficit to USD 3.4 bn or 3.6% of GDP.

Net foreign account inflows shrank to USD 1.0 bn in Q4 2016, largely due to a slower rate of decline in FX cash outside banks. Excluding FX cash outside banks, net borrowing by the private sector was little changed from the previous quarter. The drop in foreign direct investment that occurred after the recapitalization programs for the largest foreign-owned banks had been completed was offset by a decrease in debt capital outflows. With external financing deterred, the government sector mainly repaid its debts.

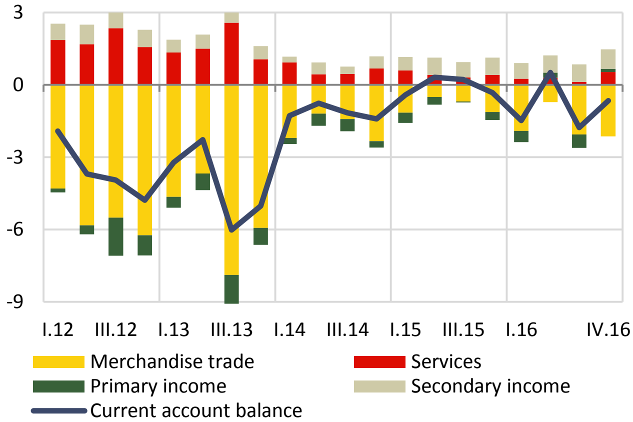
The overall balance of payments recorded a surplus of USD 1.3 bn in 2016. This, together with the third tranche received from the IMF under the EFF, pushed international reserves up to USD 15.5 bn or 3.4 months of future imports.[36]

Overall Balance of Payments, USD bn



Source: NBU

Current Account Balance, USD bn



Source: NBU

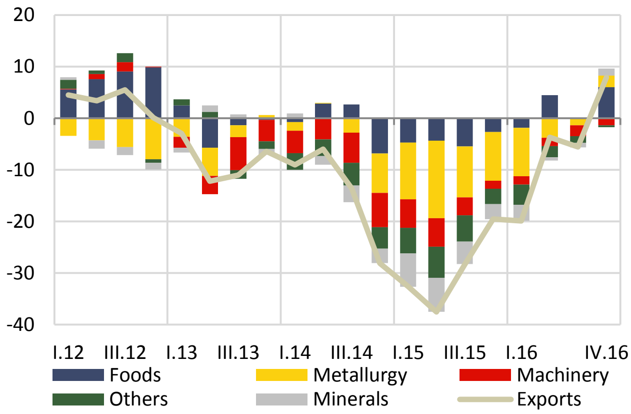
Current account

The current account deficit narrowed in Q4 2016 versus the previous quarter. However, the deficit was larger than expected, as energy and investment imports grew faster than anticipated. The performance of exports of goods was in line with expectations.

For the first time since 2012, exports of goods were up by 7.9% yoy in Q4, reflecting a bountiful grain harvest and improved external economic conditions.

The impact of falling global grain prices in Q4 was counterbalanced by a substantial rise in export volumes amid a record harvest. This pushed the value of grain exports up by 1.6% yoy. In addition, a bountiful sunflower harvest drove production higher and, consequently, exports of sunflower oil and seeds by 23.7% yoy (contributing 3.9 pp to total export growth). The year of 2016 saw significant increases in sugar exports, as exporters entered new markets, such as Myanmar, Sri-Lanka, Guinea, Benin and Lebanon. In particular, sugar exports amounted USD 151 million in Q4 2016, compared to the corresponding quarter last year, when sugar exports were weak. Overall, in 2016, sugar exports rose fivefold, to USD 230 million. However, the share of sugar exports

Contribution to Annual Changes in Exports, pp



Source: NBU staff estimates

[35] Q3 witnessed scheduled interest payments on restructured Eurobonds.
[36] International reserves in months of future imports have been revised to reflect the current projections for imports of goods and services.

remained small in percent of total food exports - 3% in Q4 and 1.5% for the whole of 2016.

A rise in global iron ore and ferrous metal prices pushed up the value of exports of these goods. In particular, exports of iron ore grew by 24.6% yoy, in spite a drop in export volumes. Meanwhile, exports of ferrous metals rose by 14.9% yoy.

Across regions, Asian countries, at 35.1%, remained the largest importers of Ukrainian goods. Exports to Asian countries increased by 17.5% yoy in Q4, driven by higher grain exports, which accounted for about 30% of total exports to these countries. Other commodities that accounted for the largest shares were fats and oils (23%) and ferrous metals (17%). The percentage of European countries in total exports, at 31.5%, remained large, with exports to these countries rising by 1.5% yoy. In the meantime, the percentage of grain exports reduced to 10%, reflecting a drop in these exports. Ferrous metals (21%), ores, slag and ash (11%), and fats and oils (9.4%) accounted for the largest shares of exports to European countries. The share of CIS countries dropped further, to 17.5%. Exports to these countries declined by 8.9% yoy, mainly due to a fall in machinery exports.

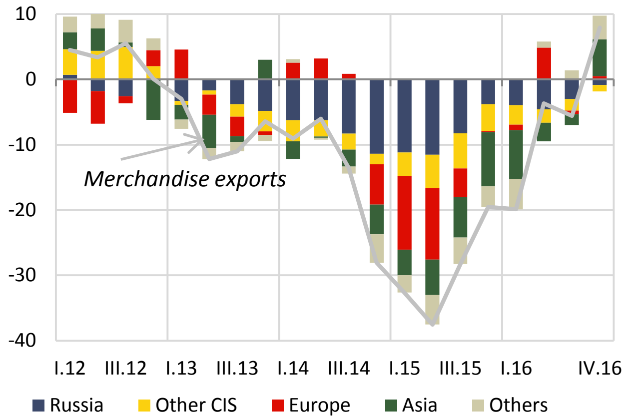
Overall in 2016, exports of goods declined by 5.2% yoy. This was largely attributed to lower prices of selected Ukrainian exported goods, and decreased exports of some product groups. A good grain harvest helped increase grain export volumes by 7.4% yoy, while gradually renewed operations at metallurgical plants drove up the volumes of ferrous metal exports by 6.4% yoy. A drop in the production of iron ore and the low competitiveness of Ukrainian machinery products caused exports of these goods to decrease by 10.9% yoy and 17.8% yoy respectively.

Growth of imports of goods accelerated to 16.9% yoy in Q4, faster than expected. This was attributed to rising energy and machinery imports.

As in the previous quarter, investment imports increased at a fast pace (by over 35% yoy) led by imports of agricultural machinery. Car imports also increased markedly. Overall, in 2016, the Ukrainian car market expanded at the highest pace compared to other European countries. In terms of sales, Ukraine ranked 23rd (65,000 cars), which, however, was a 10-fold decrease versus 2008 (623,000 cars). Consumer imports rose at a relatively high pace (by 13% yoy), as real disposable incomes increased further and the economy stabilized. In particular, food imports were up by 17.4% yoy, while industrial imports grew by 14.4% yoy.

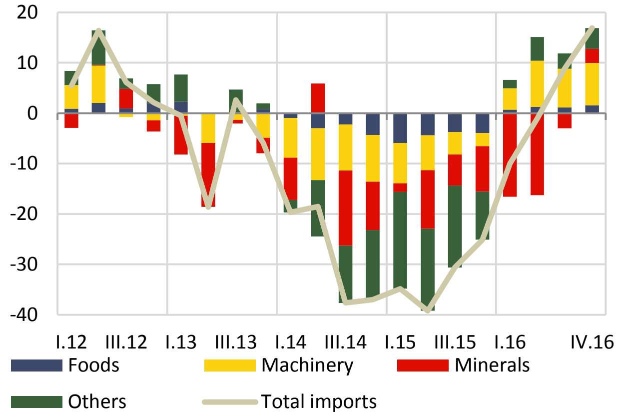
Energy imports rose by 11.3% in Q4, for the first time since 2014. Imports of oil products increased by 10.8% yoy, as the harvesting campaign proceeded at a faster pace. Meanwhile, the record low quantities of gas injected into underground storages in the first half of the year and higher imports by private companies pushed up the volumes of gas imports by 19.4% yoy in Q4. In 2016, gas imports from Russia were totally absent, with gas imported exclusively from European countries. In particular, Ukraine

Contribution to Annual Changes in Exports by regions, pp



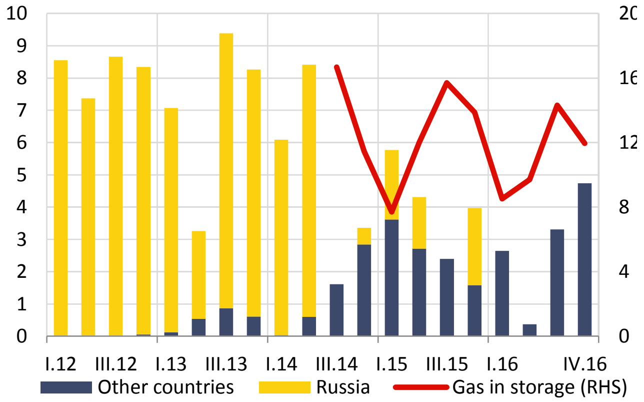
Source: NBU staff estimates

Contribution to Annual Changes in Imports, pp



Source: NBU staff estimates

Natural Gas Imports, bn m³



Source: Naftogaz, Ukrtransgaz

imported 9.1 bn cubic meters from Slovakia, 1 bn cubic meters from Hungary, and 1 bn cubic meters from Poland.

Across regions, European countries have been the major exporters of goods to Ukraine over the last three years, accounting for 41.5% of all imports in Q4. This was attributed, among other things, to the diversification of gas supplies. Mineral imports rose to 27% in percent of total imports from European countries, with machinery imports accounting for around 27%. The share of imports from the CIS countries dropped to 24.4%, with Ukraine mainly importing oil products (29%), coal (10%), and machinery (16%). Machinery imports, at 45%, were responsible for the bulk of imports from Asian countries (19.9% of total imports).

Overall, in 2016, imports of goods increased by 3.8%, due to the rising domestic investment and consumer demand. The value of machinery imports grew by 37.9% yoy, with food imports up by 13.4% yoy. Meanwhile, large gas reserves in undergrounds storages by early 2016 (13.9 bn cubic meters) dampened gas imports (down by 32.4% yoy).

In Q4, the trade surplus in services (USD 533 million) widened yoy, exceeding the NBU's expectations.

Exports of services grew by 6.3% yoy in Q4, reflecting the significantly increased gas transit to the European countries (by 33.5% yoy). Exports of travel services were up by 15.0% yoy in Q4, due to a higher number of tourists. Exports of IT services also grew at a fast pace (by 10.2% yoy). However, the improved performance of exports of services seen in the last three quarters of 2016 failed to offset a dramatic fall in Q1. As a result, exports of services dropped by 0.8% for the whole of 2016.

The sustained economic upturn, together with the improved consumer sentiment, drove imports of services higher, up by 3% yoy in Q4. In particular, imports of transportation and travel services grew by 20.2% yoy and 10.5% yoy respectively. Overall, in 2016, imports of services were up by 4.1%, driven mainly by higher imports of transportation and travel services.

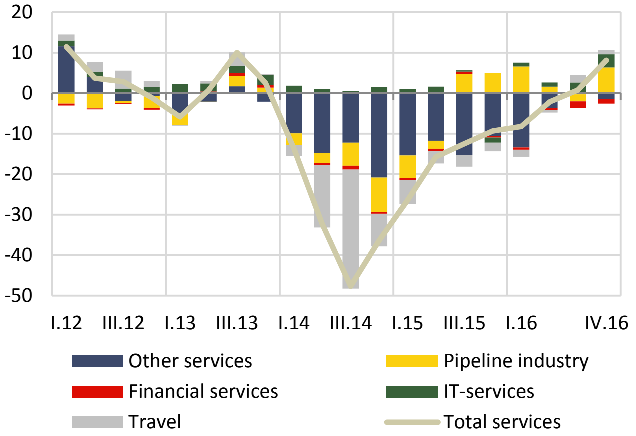
The primary income account repayments decreased to USD 1 bn in Q4, down from USD 1.8 bn in Q3, due to the absence of interest payments on restructured Eurobonds in the reporting quarter.[37] This resulted in a primary income surplus of USD 141 million in Q4.

The secondary income balance was positive, at USD 799 million in Q4. Remittances to Ukraine declined by 0.6% yoy, to USD 1.4 bn, in line with lower workers' remittances from Russia, resulting from Ukraine's ban on some Russian money transfer systems. However, for the whole of 2016, transfers grew by 5% to USD 5.4 bn, especially those from European countries and the US.

Financial account

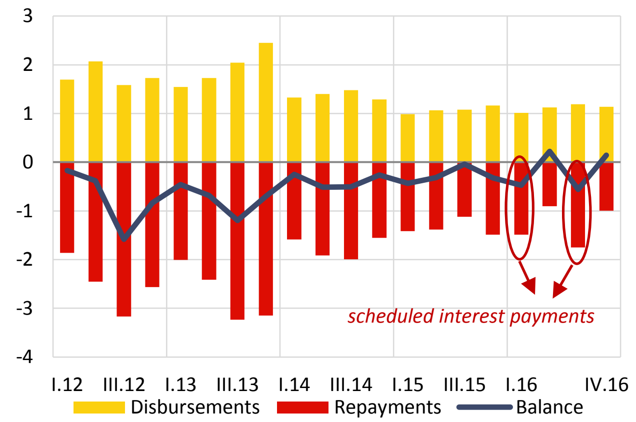
Net financial account inflows retreated to USD 1 bn in Q4 2016. This was largely attributed to a further decrease in

Contribution to Annual Changes in Exports of Services, pp



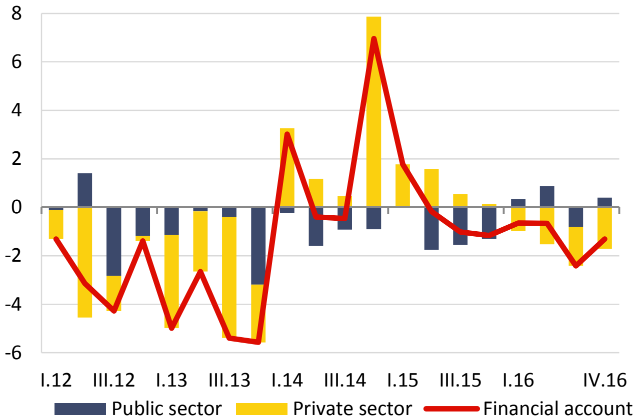
Source: NBU staff estimates

Primary Income Account, USD bn



Source: NBU staff estimates

Financial Account: Net External Assets, USD bn



Source: NBU

[37] Since 2016, interest payment on restructured Eurobonds have taken place twice a year - in March and in September, with a coupon of USD 0.5 billion.

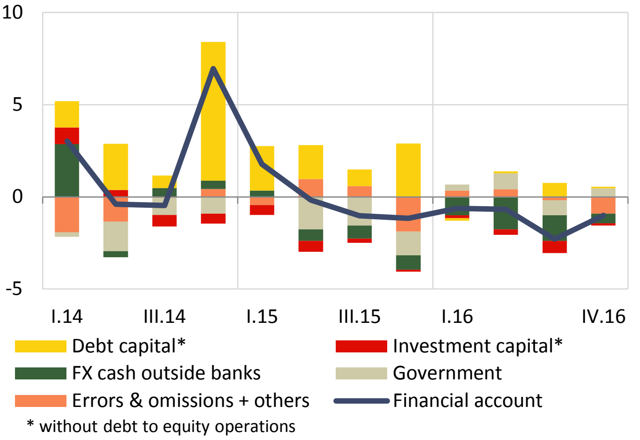
FX cash outside banks (by USD 0.5 bn) amid intensified political tensions, a higher depreciation pressure on the hryvnia, and a considerable fiscal expansion at the end of the year. Net debt capital outflows from the real sector (USD 227 million) remained at the level of the previous quarter, due to large repayments of long-term loans. Foreign direct investment to the real sector, at USD 170 million, remained low.

With external financing deterred, the government mainly repaid foreign currency denominated government securities to non-residents worth USD 0.5 bn.

Foreign direct investment to the banking sector also declined in Q4, as recapitalization programs for the largest foreign-owned banks had been completed. Excluding debt-to-equity operations, foreign direct investment in the banking system remained virtually flat (about USD 50 million). Overall, in 2016, debt-to-equity operations exceeded USD 2 bn.[38] In contrast to the previous quarter, the banking sector recorded net debt inflows of USD 141 million in Q4 (versus net outflows of USD 542 million in Q3).

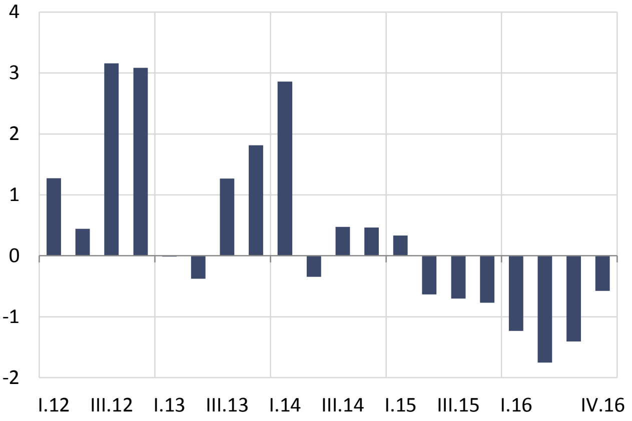
The rollover of long-term private external debt increased throughout 2016, to 65% in Q4 (excluding debt-to-equity operations). Rollover improved in both the banking and the corporate sectors.

Financial Account: Some Items, USD bn



Source: NBU

FX Cash outside Banks, USD bn

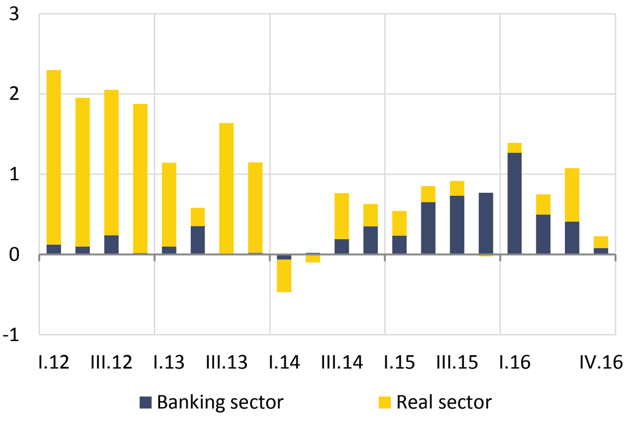


Source: NBU

Rollover of long-term private external debt[39], %

	2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016
Banks	53	31	74	66	76	58
Real sector	38	67	53	62	60	61
Total	44	55	56	64	65	60

Foreign Direct Investment, USD bn



Source: NBU

Reserve assets

In spite of the overall balance of payments surplus of USD 0.4 bn recorded in Q4, international reserves changed only marginally due to valuation changes, totaling USD 15.5 bn or 3.4 months of future imports in late December.

External sustainability

A rise in gross external debt due to the general government and central bank borrowing resulted in a slight worsening of external sustainability indicators. Meanwhile, international reserves adequacy indicators improved, driven by increased international reserves.

[38] Excluding debt-to-equity operations.
[39] Excluding debt-to-equity operations.

External sustainability and international reserve adequacy indicators

%	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016
External debt/GDP	106.7	119.3	130.5	131.3	129.8	127.2	128.2
External debt/exports of goods and services	207.0	230.1	248.6	248.4	256.0	252.8	257.8
Short-term debt/gross debt	43.5	43.6	41.0	43.1	40.6	39.8	39.1
Short-term debt/GDP	46.4	52.0	53.5	56.6	52.7	50.6	50.1
Short-term debt/exports of goods and services	90.0	100.2	101.9	107.1	103.9	100.5	100.8
Openness of the economy[40]	106.5	106.9	107.9	107.7	104.6	104.2	104.7
Reserves/short-term debt	18.4	18.8	24.9	26.0	26.7	30.6	34.4
Reserves, composite IMF measure	31.9	32.9	41.9	45.2	44.8	50.1	54.3
Reserves in months of future imports (3 months)	81.9	84.4	102.8	103.0	96.0	102.7	112.9
Reserves as a share of broad money	22.8	22.1	29.4	32.1	33.1	33.5	38.3

Ukraine's gross external debt rose by USD 1.1 bn to USD 116 bn in Q3, driven by a rise in the general government's and the central bank debt. The third IMF tranche received under the EFF increased the central bank debt by USD 1.0 bn. Renewed cooperation with the IMF allowed the government to issue government-guaranteed bonds worth USD 1.0 bn. This pushed up the general government debt by USD 0.8 bn.

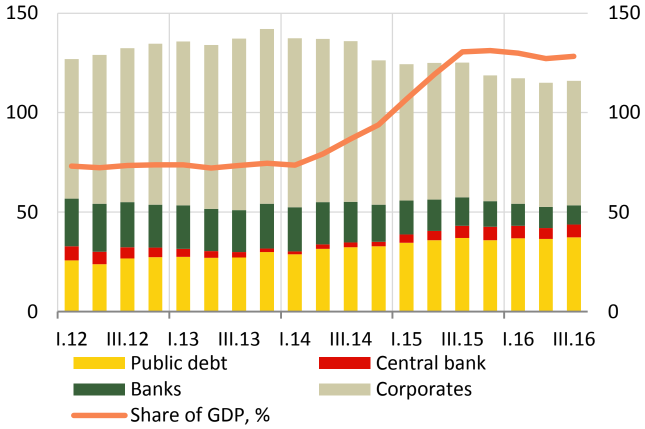
The debt of the banking sector declined further, largely due to loan repayments by banks to their parent banks. The debt of the real sector was virtually flat.

Short-term external debt by residual maturity fell by USD 0.4 bn in Q3 2016 to USD 45.4 bn. The short-term debt of the government and the central bank by residual maturity remained almost flat.

The short-term external debt of the real sector by residual maturity went up by USD 0.5 bn, driven mainly by a rise in long-term loans that fall due in the next 12 months. The debt of the banking sector by residual maturity decreased by USD 0.7 bn, due to a fall in interbank loan debt (debt-to-equity operations).

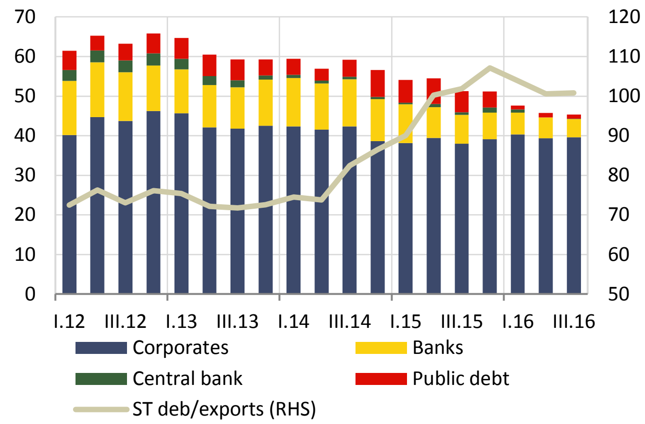
The rise in international reserves of USD 1.6 bn in Q3 improved reserve adequacy indicators. In particular, the ratio of reserves to short-term debt (Guidotti - Greenspan criterion) and the composite IMF measure (ARA metrics) increased to 34.4% and 54.3% respectively (up from 30.6% and 50.1%), with the norm being 100%. Reserves in months of future imports grew from 3.1 months to 3.4 months. The ratio of reserves to broad money rose by 4.8 pp, reflecting, among other things, a decrease in the money supply in the dollar equivalent.

Gross External Debt, USD bn



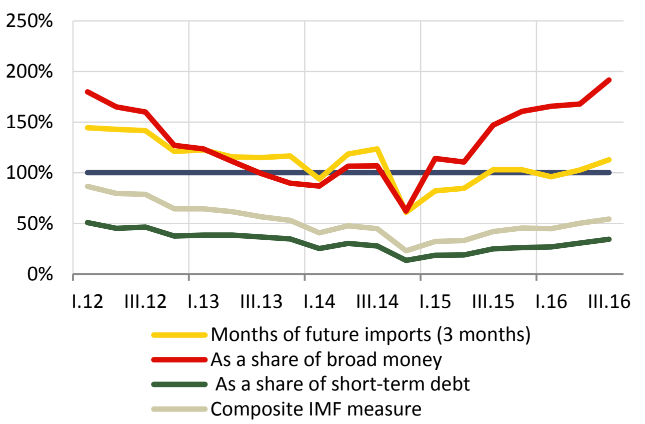
Source: NBU

Short-term External Debt by Remaining Maturity, USD bn



Source: NBU

Adequacy Criteria of International Reserves, %



Source: NBU staff estimates

[40] Calculated as a ratio of the 12-month moving sum of exports and imports to GDP for the relevant period.

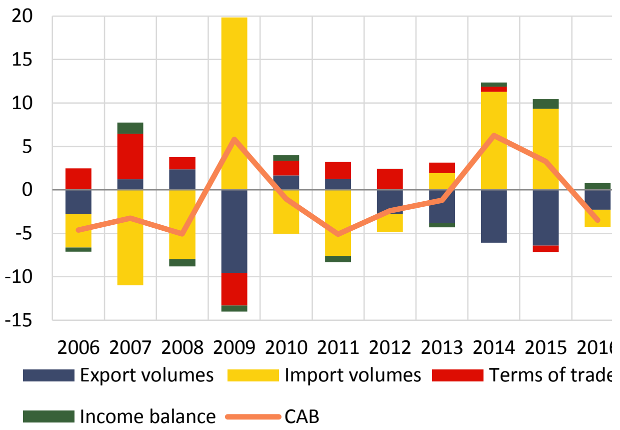
Ukraine's current account: main developments in the last decade

1) The investment (credit) boom: 2005 through Q3 2008

Since 2005, Ukraine'seconomic growth model relied on stimulating domestic demand through the socially oriented fiscal policy amid a weak labor productivity growth. Given the fixed exchange rate regime, this markedly increased the percentage of imported goods in total consumption. This, in turn, led to a current account deficit in 2006, which continued to widen until 2008. However, this deficit was fully covered by net financial account inflows (investment and borrowing of the private sector).

The savings-investment approach shows that the deficit mainly increased due to a surge in investment amid a moderate drop in savings. This deficit is believed to be less dangerous to the economy than a deficit resulting from a decline in savings and investment combined, especially when real GDP grows at a steadily fast pace (real GDP rose by an average of 6.3% from 2005 through 2007). However, especially due to a fixed exchange rate regime, a surge in import volumes made the economy very vulnerable to a sudden stop or reversal in capital flows. This increased risks of a sharp and painful adjustment that would threaten financial stability and economic growth. Just this particular scenario materialized in late 2008.

Current account indicators, the absolute annual change and impact of factors, % of GDP*



**GDP of previous year*
Source: NBU staff estimates

2) Repercussions of the global financial and economic crisis, elimination of mismatches: Q4 2008 through 2009

The global economic and financial crisis triggered a sharp fall in commodity prices, as well as capital outflows from developing economies. This had negative implications for the Ukrainian economy: real GDP declined by over 15% in 2009, and the nominal hryvnia exchange rate depreciated sharply, narrowing the current account deficith. The fall in the nominal exchange rate had the strongest impact on imports of goods and services, down by about 40% in real terms in 2009. Exports also declined in real terms: the positive depreciation effects were counterbalanced by an unfavorable external economic environment and higher production costs resulting from rising fuel prices and imported intermediate consumption goods.

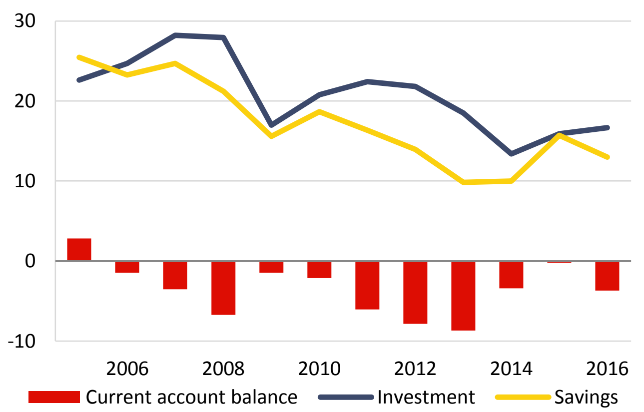
The savings-investment approach shows that this adjustment was attributed to a drop in investment, outpacing a fall in savings. The economic theory holds that the adjustment that entails a decrease in both investment and savings may have adverse economic implications. This is exactly what Ukraine faced later.

3) A marked widening in the current account deficit: 2010 through 2013

The current account deficit widened markedly in 2010 (to 2% of GDP), rising at a fast pace in the subsequent years, as domestic demand quickly rebounded. The deficit reached 8.7% of GDP in 2013, exceeding the critical level for the third consecutive year. At the beginning of this period, higher imports were mostly responsible for the widening of the deficit. From 2012, the widening was largely attributed to a decline in export volumes, particularly agricultural and machinery exports, resulting from trade wars with Russia.

The years 2011 and 2012 saw a rise in investment, especially the government investment in infrastructure (such as Euro-2012, roads and airports), indicating the post-crisis economic upturn. It is widely believed that investment growth, in spite of a widening current account deficit, promotes economic growth, higher exports and import - substitution, which ultimately improves the country's external position. However, this is only true of productive investment that boost the economy's potential. Ukraine, however, has rather kept investment at the required minimum rather than increased investment, while the current account deficit instead reflected a dramatic drop in savings, driven by recovering consumption. The government's accommodating fiscal policy played an important role in stimulating consumption. The budget deficit was around 4% of GDP in 2012 through 2013, with social spending accounting for the largest percentage of

Savings-Investment Balance, % of GDP



Source: SSSU; NBU staff estimates

budgetary spending (from 2010 the percentage of capital spending of total expenditures was less than 10%, averaging only 7%).

Interventions carried out with the purpose of maintaining the fixed exchange rate amid a sustained rise in the current account deficit reduced international reserves almost twice, to USD 20.4 bn in late 2013. In this light, the fiscal and exchange rate policies conducted over that period resulted in much larger mismatches than those accumulated in late 2008.

4) The triple (macroeconomic, banking and foreign exchange) crisis, its repercussions and the beginning of recovery): 2014 through 2015

Political instability and the military conflict with Russia in Crimea and eastern Ukraine triggered a triple crisis in 2014. Given a large current account deficit and the critically low level of international reserves, it was impossible to maintain a fixed exchange rate any longer. The UAH/USD exchange rate fell by almost three times in 2014 through 2015.

In contrast to the 2008 crisis, when mismatches were adjusted instantaneously, it took nearly two years to resolve all the mismatches as new negative factors constantly appeared. As in the previous crisis, the current account deficit narrowed mainly due to lower import volumes.

Geopolitical factors made the adjustment more difficult: Russian military aggression resulted in a shift of many export-oriented enterprises to the occupied territories, which broke economic ties between Ukrainian regions. Russia also imposed trade restrictions not only on Ukrainian exported goods but also on the transit of Ukrainian goods destined for other countries. In addition, trade conditions deteriorated in 2015 in the wake of a fall in global commodity prices.

In contrast to 2008, mismatches were adjusted not only through lower investment (the rate of decline was considerably smaller than in 2008), but also through savings growth. From the economic perspective, it is more effective to adjust a current account deficit precisely by increasing savings rather than by cutting investment.

5) Does the 2016 current account deficit provides evidence that investment is rebounding or, alternatively, that new mismatches are building up?

The current account deficit widened to 3.4% of GDP in 2016, driven by both larger investment and declining savings. On the one hand, investment demand recovered, mainly demand from agricultural enterprises, which is evidenced by a rise in machinery imports. On the other hand, consumption increased, including consumption of imported goods (primarily foods), which, in the absence of capital inflows, decreased savings. The deficit was also pushed up by a further decline in the volume of exports to Russia (in recent years Russia ceased to be Ukraine’s main trading partner, with its share down by more than three times in percent of total exports, to 9%).

Although the economy returned to growth in 2016, the decomposition of the factors influencing the current account in 2016 shows that the Ukrainian economy is still vulnerable to external shocks. The widening in the current account deficit seen in 2016 is yet another proof of challenges in choosing the right policy option: how to stimulate investment in order to foster economic growth in the medium term while encouraging savings in order to prevent excessive deficits? This task should be addressed through sound prudent monetary and fiscal policies and structural reforms aimed at improving Ukraine’s foreign economic position.

2.2.6. MONETARY SECTOR AND FINANCIAL MARKETS[41]

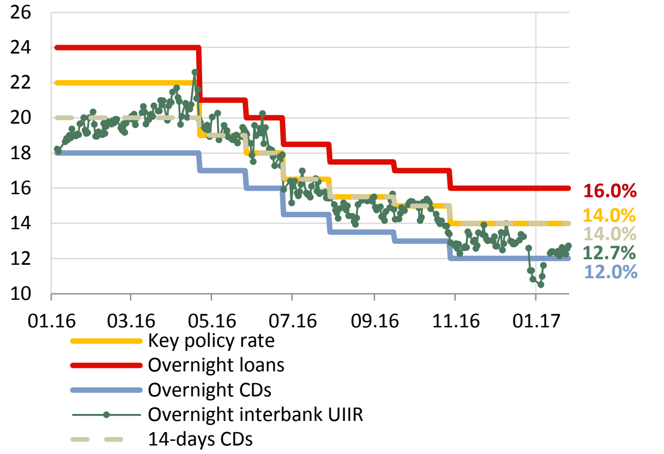
In 2016, the NBU pursued active monetary easing policy in a consistent manner. From April through October, the NBU cut its key policy rate 6 times – from 22% to 14%. This has helped to gradually reduce interest rates on interbank domestic currency loans. Weighted average interest rates on loans (excluding overdrafts) and deposits of both non-financial corporations and households also decreased.

In 2006, the situation in the FX market remained largely stable, with the exception of occasional spikes in exchange rate volatility exerting temporary depreciation pressure on the hryvnia. Thus, in late Q4 2016 and in early 2017, despite generally favorable fundamental external factors, depreciation pressure intensified. This was mainly caused by a number of incidental year-end factors (an increase in foreign loan repayments by enterprises, a rise in public expenditures, and unusually large volumes of VAT refunds), as well by a psychological factor (capitalization of PrivatBank with public funds). However, the hryvnia NEER strengthened moderately in Q4 2016, as currencies of most of Ukraine's trading partners were relatively weaker against the USD. This, together with a higher inflation rate in Ukraine compared to that in Ukraine's main trading partners, pushed up the hryvnia's REER.

In Q4 2016, domestic currency deposits returned to growth. This was attributed to a faster growth in corporate deposits, with household deposits rising at a slower pace. In annual terms, growth slowed slightly, to 8.7%, due to last year's high base of comparison. FX deposits dropped further in Q4 2016.

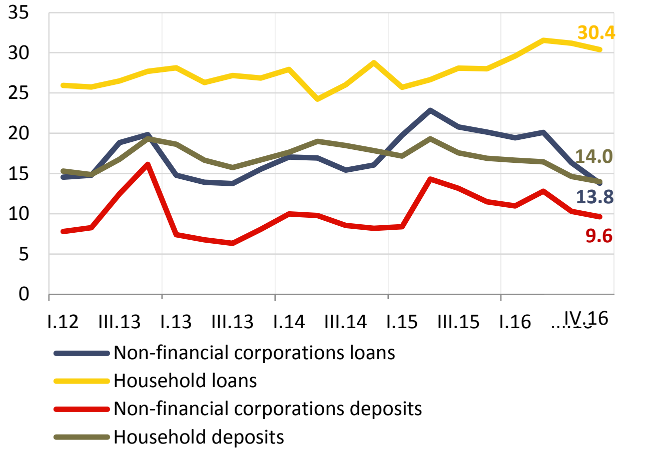
In Q4 2016, the signs of corporate lending recovery became more evident. Growth in domestic currency loans to non-financial corporations was largely due to foreign currency loans being restructured. Meanwhile, lending to households remained weak.

NBU's Policy Rates and UIIR, % pa, as of 25 January 2017



Source: NBU

Average Weighted IR on New Hryvnia Loans (excluding overdrafts) and Deposits, % pa



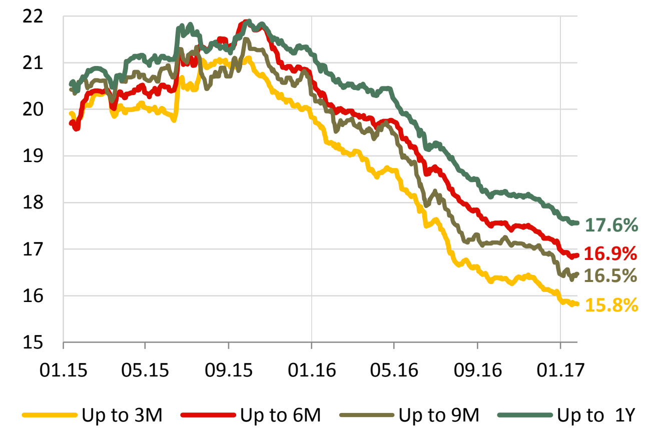
Source: NBU

Interest rates

At the beginning of Q4 2016, the NBU continued to ease monetary policy by cutting its key policy rate further. On 28 October 2016, the rate was reduced to 14% per annum. However, at its last monetary policy meeting, the NBU Board decided to keep the key policy rate unchanged. The NBU held off from easing monetary policy further in late Q4 2016 in view of higher risks to future inflation and to comply with inflation targets for 2017-2018. The move was motivated by the need to offset the effects of a sharp increase in the minimum wage, coming into effect in early 2017. However, there were also other risks involved, such as those arising from a temporary deterioration of the political situation, and delayed official financing.

Interest rates on domestic currency loans were falling gradually from April through October 2016 in response to sustained monetary easing. Thus, interest rates on interbank loans dropped to 14.2% in Q4, down from 15.7% in Q3. Weighted average interest rates on loans (excluding

Ukrainian Index of Hryvnia Retail Deposit Rates (5-day moving average), % pa, as of 25 January 2017



Source: NBU

[41] Preliminary data.

overdrafts), and deposits of non-financial corporations continued to decrease across all maturities. Interest rates on household deposits also fell, albeit more slowly than those on deposits from non-financial corporations. This reflected a robust growth in deposits from non-financial corporations. By contrast, household deposits rose at a slower pace and were more sensitive to temporary factors. Meanwhile, in spite of a marginal drop in Q4, weighted average interest rates on household loans remained fairly high. The high interest rates are attributable to consumer and card loans. The latter account for a major portion of household loans and are relatively expensive to service. In addition, demand for these loans has low elasticity to changes in interest rates.

Consistent monetary policy easing contributed to declining domestic currency bond yields across all maturities in October, while boosting demand for medium-term domestic currency bonds, which have somewhat higher yields. From November through December, the weighted average yield of domestic currency government bonds in the primary market was virtually unchanged. This reflected a decrease in the government's need for domestic currency funds, due to the NBU's profit transfers to the budget, and high tax revenues. Apart from that, in late Q4 2016, the Finance Ministry resumed auctions to sell FX government bonds.

Sizable amounts of Hryvnia government bonds sold by the Ministry of Finance in order to replenish PrivatBank's authorized capital reduced the weighted average yield of these instruments to 7.8% in Q4, down from 10.3% in Q3. Strong demand also reduced the FX government bond yields, down to 6.3% from 6.7% in Q3.

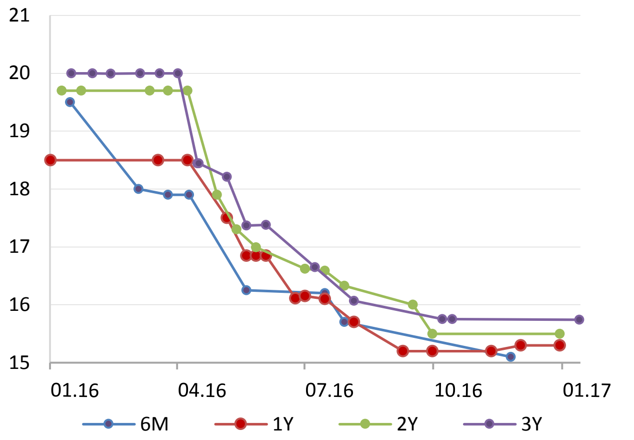
The steady trend towards sliding yields on Hryvnia government bonds that had continued in the secondary market since the start of the year reversed in Q4. Yields climbed due to rising demand for government bonds with longer maturities seen in November through December. The structure of domestic government bonds by holders also changed. In particular, the share of government securities held by the NBU declined by 20 pp in 2016 to 57% as of 1 January 2017, while the share of government securities held by banks rose by 22 pp to 38%.

The FX Market

The FX market was largely stable in 2016. However, in spite of favorable external conditions (generally higher external commodity prices and large exports), the depreciation pressure on the hryvnia intensified in late Q4 2016 and in early 2017driven by various temporary and seasonal factors. The latter included repayments of external loans by businesses, which usually pick up at the end of the year, increased budget expenditures towards the end of the year, and large VAT refunds paid from the budget. There was also a psychological factor arising from a temporary rise in political tensions and additional capital injected into PrivatBank from the budget.

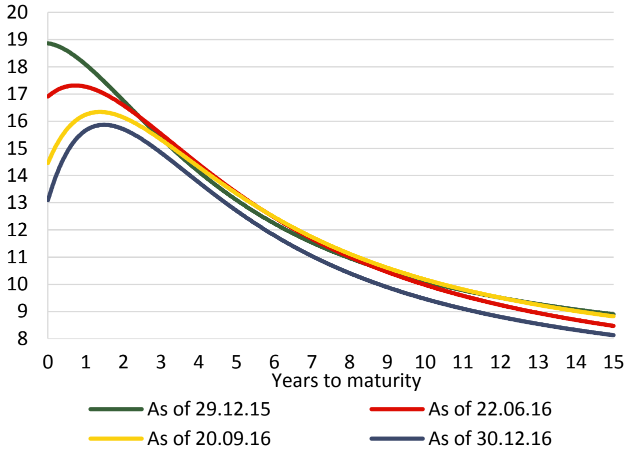
Under the flexible exchange rate regime, the NBU smoothed out excessive fluctuations using FX purchase and sale auctions without counteracting the prevailing trends. In particular, from October through November, the

The Yield to Maturity on Government Bonds Placement on the Primary Market, % pa, as of 25 January 2017



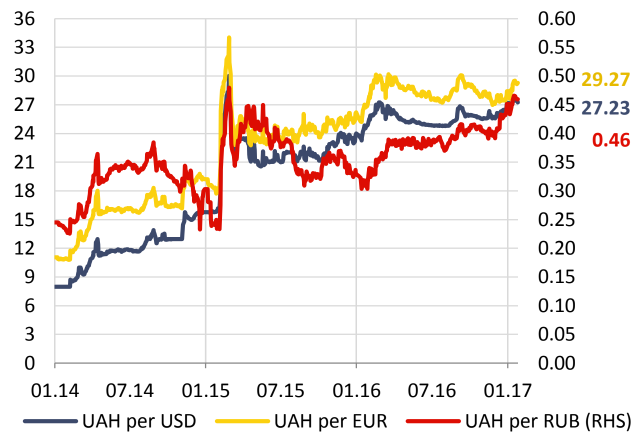
Source: NBU

Zero coupon yield curves for hryvnia government bonds*, %



** Spot rates with continuously compounded interest plotted with use of Nelson-Siegel parametric model.*
More detailed information is available at
https://bank.gov.ua/control/en/publish/article?art_id=25023355&cat_id=12064024
Source: NBU

The Official Hryvnia Exchange Rate, as of 25 January 2017



Source: NBU

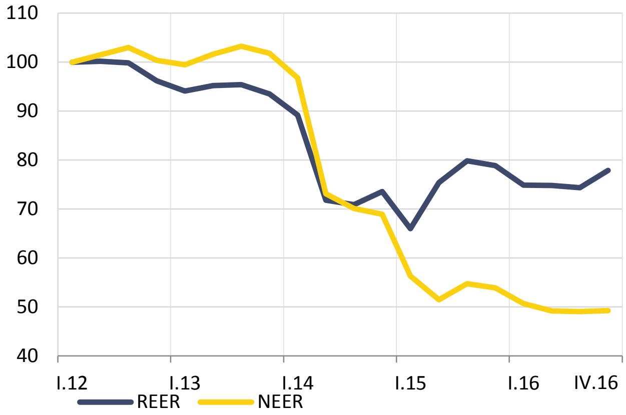
weighted average official UAH/USD exchange rate increased by 2.2% in spite of the NBU being a net foreign currency buyer. However, in December, the exchange rate dropped by 2%, while the NBU was a net FX seller. Nevertheless, the NBU's net overall FX sales totaled USD 235 million in Q4 2016 or USD 1.55 bn in 2016.

The hryvnia NEER strengthened moderately amid relatively weaker currencies of most of Ukraine's MTP (in terms of quarterly averages) against the USD exchange rate (by 0.8% qoq). This, together with a higher inflation in Ukraine versus that in Ukraine's MTP, pushed up the hryvnia REER by 5.2% qoq. The hryvnia NEER fell by 0.8% in 2016. This was, however, offset by a higher inflation in Ukraine compared to its main trading partners, leaving the REER virtually flat.

In Q4 2016, average daily FX purchases by households increased slightly in the cash FX market (to USD 4.3 million versus USD 3.5 million in Q3 2016), with sales declining dramatically. This was due to the household response to negative temporary factors. Nevertheless, the overall balance of foreign currency purchases and sales remained positive in Q4 2016.

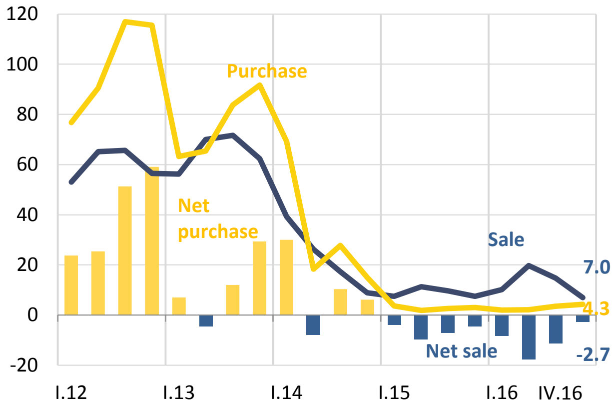
The cancelling of the 2% pension duty that private individuals had to pay when purchasing FX cash, which came into effect from January 1, 2017, is expected to help eliminate the grey cash FX market. In addition, this action was a move aiming to relax FX market controls further, and to fulfill Ukraine's obligations to the IMF.

Hryvnia NEER and REER Indexes Based on Monthly Average Interbank Exchange Rate, I.2012=100



Source: NBU

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



Source: NBU

Measures taken by the NBU to relax FX market controls and to improve the financial market

In Q4 2016, the NBU continued its efforts aimed at easing FX market restrictions and improving the financial market, albeit more slowly than in previous periods, given temporary rises in exchange rate volatility and increased depreciation pressure at the end of the quarter. Among other things, the NBU:

- allowed authorized banks to carry out transactions with derivatives on stock exchanges;

- permitted banks participating in international payment systems to purchase and transfer FX based on individual licenses issued by the NBU;

- set a single deadline for all banks to bring their total long open FX positions in line with the established limit;

- increased the amount of money that customers of resident banks may use to purchase FX on the interbank market. *The calculation of FX account balances, which are not to exceed USD 25,000, shall disregard client holdings which they will use the day they purchase FX to settle those of their payment orders that do not have to be entered into the relevant registers;*

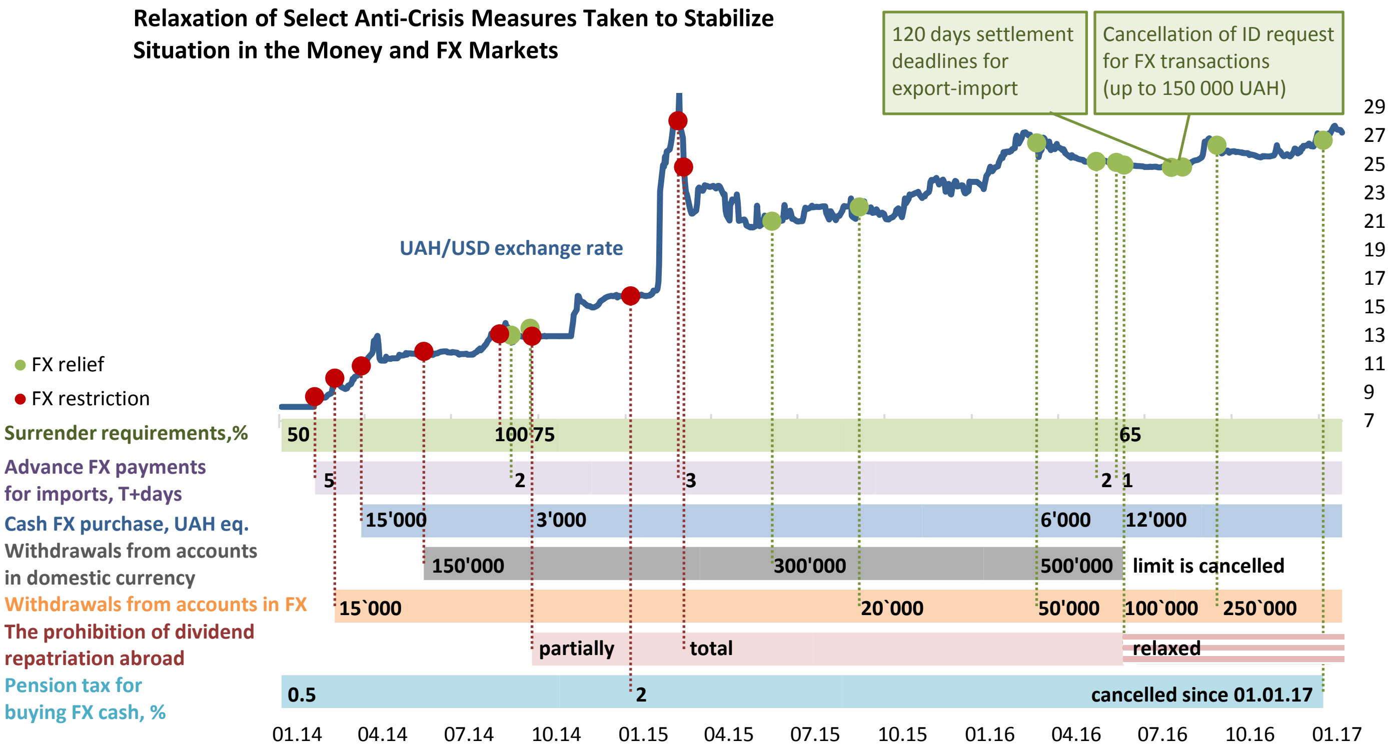
- eliminated administrative restrictions on exports of services. *The NBU permitted residents that export services (apart from transportation and insurance services), intellectual property rights, copyrights and associated rights to exceed the 120-day settlement deadline for such transactions, as well as not to have to translate English documents into Ukrainian. The NBU also allowed banks to use electronic copies of documents, including invoices, in order to monitor how residents comply with FX regulations when carrying out export and import transactions.*

- eased conditions for foreign loan inflows and improved the mechanism for preventing FX loan outflows from Ukraine. *The NBU introduced an exception to the rule that the maximum interest rates on external loans provided to residents by non-residents with the involvement of export and credit agencies may not exceed the set limit. Meanwhile, the NBU required banks to verify the sources of the FX funds of those residents (if they are not financial institutions) who intend to lend this money to non-residents.*

- expanded the arsenal of tools banks use to manage their short-term liquidity. *The NBU permitted banks to purchase highly liquid foreign debt instruments that have a high rating without obtaining individual licenses, provided that banks comply with the NBU's requirements;*

- simplified FX transactions for insurance companies. *In particular, the NBU cancelled the requirement for insurance companies to have all documents translated into Ukrainian, permitted them to conduct FX transactions using document copies, and eased conditions for certifying document copies.*

- introduced a new type of FX intervention – the best exchange rate offer. *Using its trade and information system, the NBU collects information about the FX bid and ask prices submitted by 20 banks that have been selected based on the same principle for all banks. An agreement is entered into with the bank that offers the best price.*



The Monetary Base and Banks' Liquidity

Liquidity tightening in the banking system subsided at the beginning of Q4 2016, with an increase in liquidity observed in December, which is typical of the month. In particular, following a 6-month decline, average daily stocks of certificates of deposit returned to growth in November following a half-year break. In December, they grew even more strongly. For the quarter, however, they dropped by 15.9% qoq, due to a marked decrease in October. Meanwhile, average daily stocks of banks' correspondent accounts grew by 7.6% qoq.

Improvements in liquidity seen in Q4 2016 were largely attributed to government transactions, the net effect of which is estimated at UAH 32.3 bn.[42] This resulted from higher budget expenditures, which usually increase at the end of every year, unusually large VAT refunds, as well as advance payments of some January pensions. The influence of the latter factor became especially pronounced in the last days of the year. Liquidity was also injected through the FX channel: the NBU's net FX purchases amounted to UAH 5.8 bn. Transactions made by the Deposit Guarantee Fund did not contribute much to the liquidity growth.

In late December, the NBU monetized government bonds worth UAH 25.8 bn, in order to rejuvenate PrivatBank. PrivatBank mostly used this money to replenish its required reserves, and to supply cash to bank teller desks and ATMs.

The main contributor to liquidity tightening was a surge in cash outside banks (by UAH 28.6 bn), which was most dramatic in December. There were also seasonal and psychological factors (arising from events surrounding PrivatBank). Liquidity also diminished as banks repayed NBU loans (the NBU received about UAH 6.0 bn net).

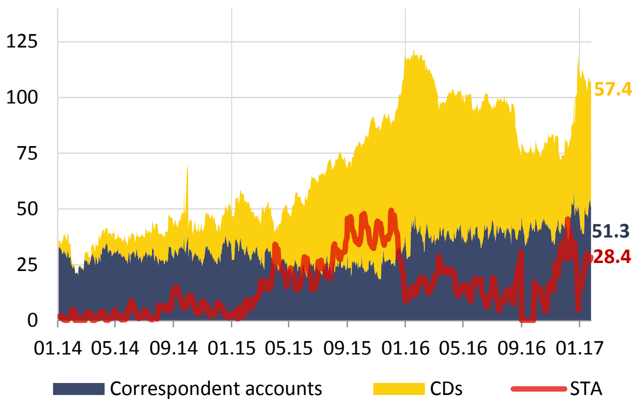
With the rise in cash outside banks exceeding a drop in the stocks of bank correspondent accounts at the end of the period, the monetary base grew by 7.4% qoq in Q4 2016. In annual terms, the monetary base growth accelerated by 13.6%.

The Money Supply and Its Components

Domestic currency deposits returned to growth in Q4 2016, up by 6.3% qoq. Meanwhile, a drop in FX deposits (in the USD equivalent) driven by a decline in both corporate and household deposits determined the downward trend of the total outstanding deposits (down by 4.7% qoq). Nevertheless, for the whole of 2016, they remained virtually flat.

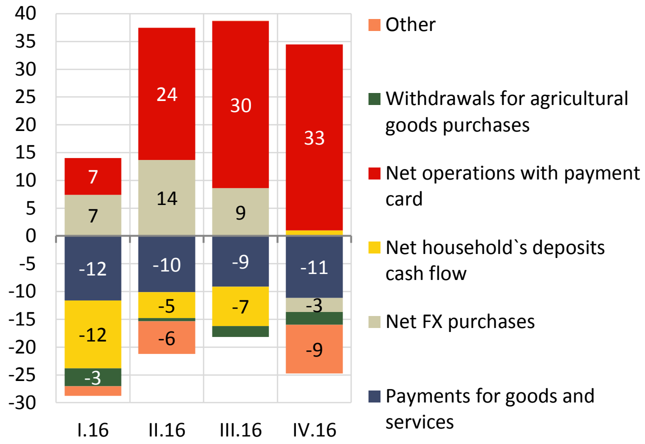
In Q4 2016, domestic currency corporate loans rose by 9.6% qoq due to the increase in both corporate loans (by 9.6% qoq) and household loans (by 2.6% qoq). December witnessed the strongest growth in deposits, due to large government expenditures at the end of the year.

Select Indicators of Banking System Liquidity, UAH bn, as of 25.01.2017



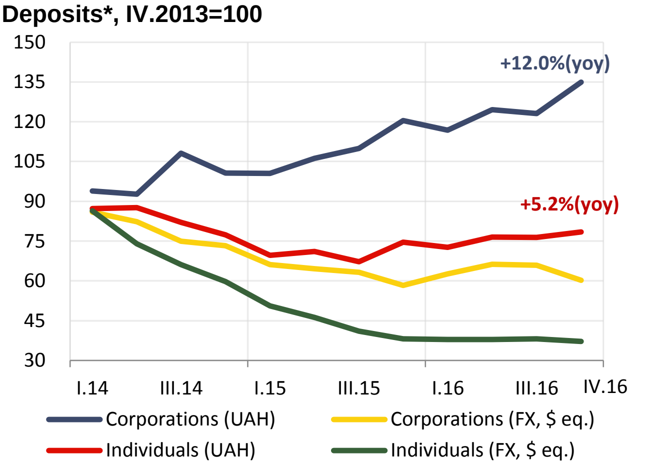
Source: NBU

Channels of M0 Issuance/Withdrawal, UAH bn qoq



Source: NBU staff estimates

Deposits*, IV.2013=100



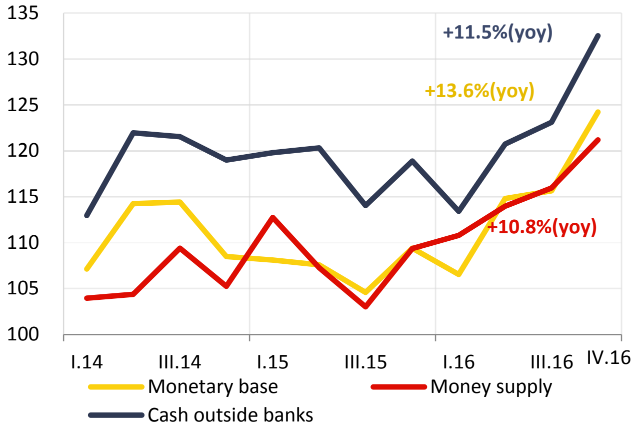
** The stock of household deposits excluding private entrepreneurs.*
Source: NBU

[42] The influence of fiscal factors on the liquidity growth has been estimated on the basis of changes in balances in the Single Treasury Account (up by UAH 0.8 billion), the NBU's profit transfer to the budget (UAH 38.2 billion), debt repayments by the government to the NBU (UAH 24.2 billion), and the amount of FX sold to the NBU (UAH 19.2 billion).

In 2016, corporate deposits led overall deposit growth with national currency corporate deposits up by 12%, and FX corporate deposits rising by 3.3%. This was attributed to a pick-up in economic activity and an improvement of the financial performance of businesses. The stock of hryvnia household deposits increased by 5.2% in 2016, driven by higher nominal incomes. Term deposits with maturities from one to two years rose at the highest pace. They recorded growth in every month in 2016, and accelerated significantly starting from April. The rate of decline in FX deposits (in the USD equivalent) slowed markedly. These developments in household deposits are indicative of a gradual recovery in households' confidence in both the banking system and the domestic currency. Demand deposits also showed improved performance.

These deposit developments, alongside the rise in cash outside banks, pushed up the money supply by 4.5% qoq or by 10.8% yoy in Q4 2016.

Monetary Indicators, IV.2013=100



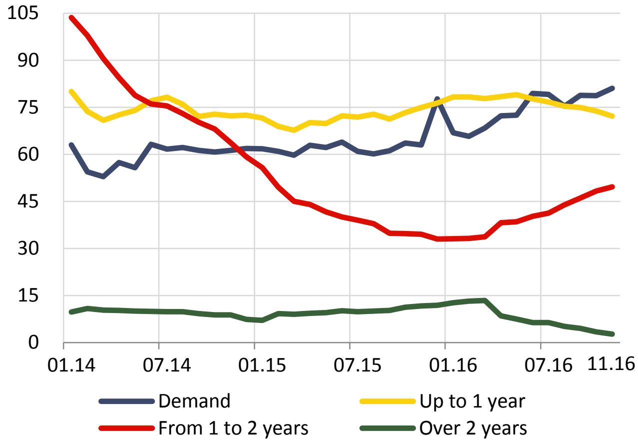
Source: NBU

Loans

Domestic currency loans grew further in Q4 2016, by 10.9% qoq, much faster than in the previous quarter, accelerating to 17.5% in annual terms. Hryvnia currency corporate loans, which were up by 13.2% qoq in Q4 2016, were the main contributor to growth, with household lending remaining weak.

Loans to wholesale and retail trade, repair of motor vehicles and motorcycles have shown the greatest increase from the middle of 2016. In November, domestic currency loans to businesses involved in these economic activities reached their pre-crisis level. Besides, loans to agriculture, forestry and fishing, to construction, and to real estate activities also saw moderate growth. Meanwhile, lending to other economic activities remained subdued.

Maturity of Domestic Currency Household Deposits, UAH bn

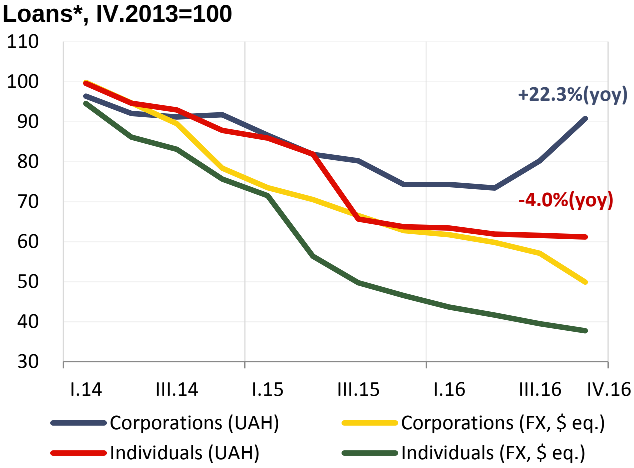


Source: NBU

Signs of a gradual rebound in corporate loans became more evident, as the economy returned to growth and banks gradually cut interest rates on loans. However, the growth in national currency loans seen in Q4 2016 resulted, to a great extent, from the continued restructuring of FX loans. Overall, foreign currency loans declined by 11.4% qoq or by 20.2% yoy.

High credit risk and the low solvency of borrowers restrained lending. The large share of past-due loans (24.2%) in percent of total loans granted was another drag on lending. This share remained larger than in early 2016, although declining gradually over the last four months.

Loans*, IV.2013=100



** The stock of household loans excluding private entrepreneurs.*
Source: NBU

At the same time, the Lending Survey for Q4 2016[43] shows a continued rise in demand for both corporate and household loans. This is due to a gradual fall in interest rates and factors inherent to these groups (the need to raise working capital and to restructure debts for non-financial corporations, a pick-up in the real estate market and higher consumer confidence for households).

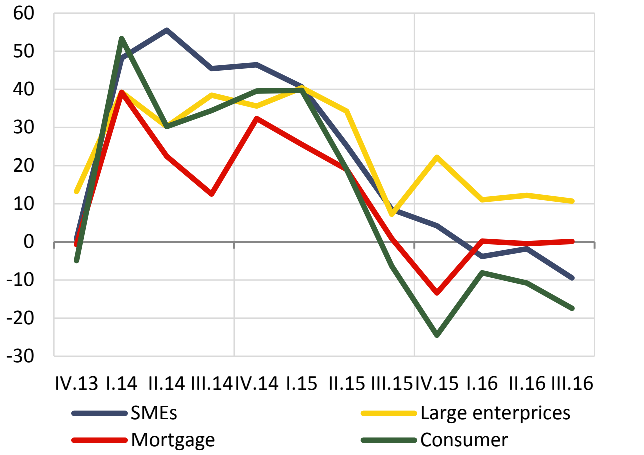
Overall, lending conditions for non-financial corporations have remained unchanged, with a decline in loans to small and medium businesses offset by a rise in selected loan types (short-term loans, FX loans, and loans to large

[43] More detailed information is available at https://bank.gov.ua/doccatalog/document?id=38926387.

businesses). By contrast, banks have been reporting improved consumer lending conditions and unchanged mortgage lending conditions for five quarters running.

Lending conditions for small and medium businesses and consumer lending conditions are expected to improve in Q4, while mortgage lending conditions are projected to tighten.

Change in standards for approval of loan applications broken down by types of loans, balance of responses, %



Note: SMEs - small and medium enterprises, mortgage and consumer – loans to households.
Source: Lending survey

Segmentation of the Interbank Credit Market [44]

The main objective of interbank lending is liquidity distribution among banks. The interbank credit market (IBCM) is the first link in the transmission mechanism of monetary policy.

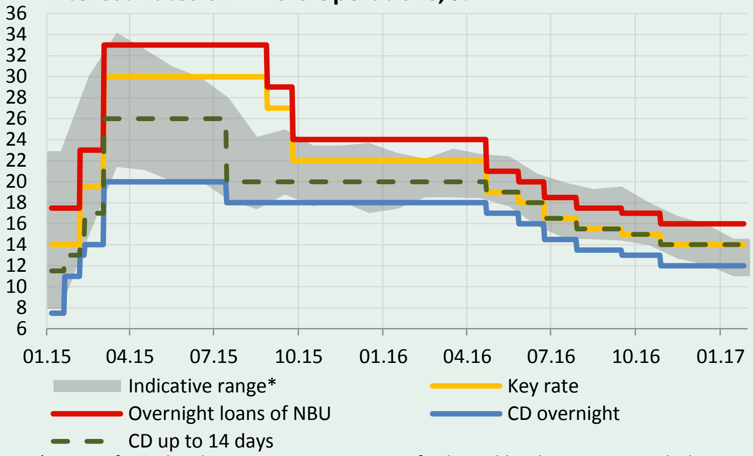
The global financial crisis of 2007-2009 and the Ukrainian political crisis of early 2014 had serious repercussions for the Ukrainian IBCM, eroding confidence of the market players, among other things. The concentration of liquidity increased each time tensions in the money market built up. This means that in those times liquidity became disproportionally distributed among banks: access to the IBCM became more restricted for small and medium banks, with liquidity mostly accumulated by the largest banks. As a result, in spite of a significant liquidity surplus in the banking system, the central bank had to provide the liquidity support in order to restore equilibrium not only in the interbank credit market, but also in the entire financial system.

The Ukrainian interbank market is rather shallow, with only 15 banks having regular credit lines with each other. Overnight credit market players have begun to give preference to FX swaps. The average daily volume of overnight loan transactions declined from UAH 2.4 bn in the first half of 2015 to UAH 0.8 bn in the latter half of 2016. The average daily number of lending agreements dropped from 73 to 21. Over that period, the average daily volume of overnight swap transactions grew from UAH 0.2 bn to UAH 2.5 bn, with the average daily number of overnight swap agreements rising from 4 to 45. A similar pattern was seen in transactions with maturities of up to one week.

In the fall of 2016, secured loans, at 87%, accounted for the largest share of all IBCM transactions, while loans with maturities of up to seven days, at 89%, constituted the largest share of all transactions in terms of maturity. Unsecured loans were granted only to banks with the highest rating, which usually have a liquidity surplus. At the same time, rates on secured loan were markedly higher than rates on unsecured loan. These developments are similar to the overall developments in the credit market where, according to the NBU's lending survey, over the last two years, loan interest rates have been mostly set based on the credit standing of a borrower rather than the quality of the collateral.

Until recently, ten most active banks accounted for over 70% of the market's turnover. Banks have been subdivided into three groups, depending on

Indicative Range of Borrowing Interest Rates in the IBLM and Interest Rates on NBU`s Operations, %



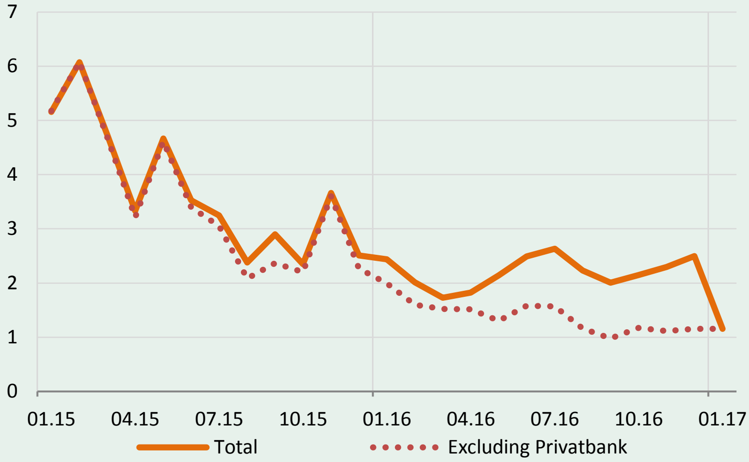
*range of weighted average interest rates of selected banks on IBLM excluding highest and lowest 5%

[44] January data as of 20 January 2017.

the agreements they entered into in the interbank credit market from September through November, and their relations with each other:

– PrivatBank, which accounted for 25% of total IBCM borrowing (the bank did not lend any money). The bank borrowed funds by entering into FX swap agreements with intermediary banks. PrivatBank is estimated to be related to about 70% of all the transactions in the interbank credit market;
– intermediary banks, which borrowed 51% of total IBCM loans; the bulk of these loans was relent to the PrivatBank directly or via other intermediary banks;
– state-owned and foreign-owned banks (that are not intermediaries); these banks mostly receive unsecured loans, and some of them were primary lenders for intermediary banks;
– other banks (small and medium domestic banks), which were largely primary lenders for intermediary banks (17% of all the loans incurred).

Index of Interest Rates Segmentation - weighted average standard deviation of borrowing interest rates on IBLM, %



* Weighted by amounts of borrowed money.

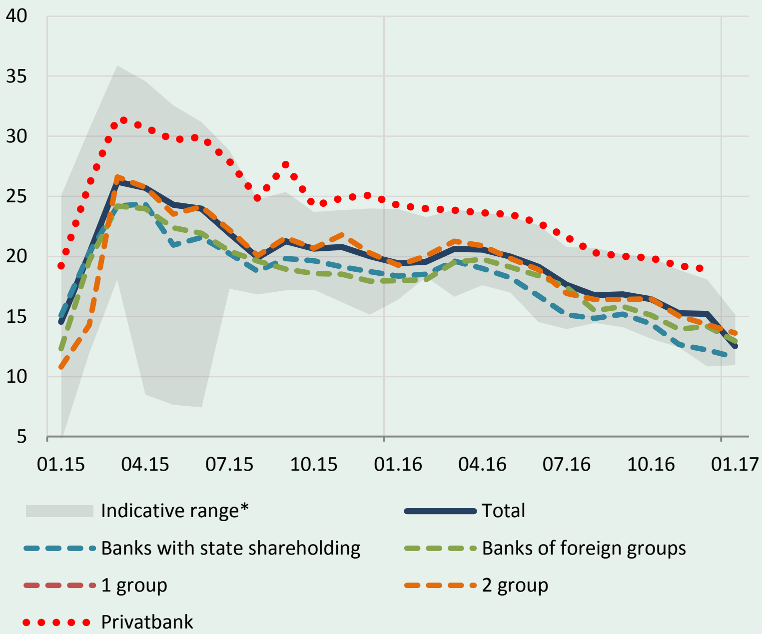
Cuts in the NBU's key policy rate were effectively transmitted to interbank rates. The indicative interest rate range of the IBCM dropped down from 18% to 36% in March 2015 to 11% to 15% in January 2017 (the indicative range was calculated as the range of the average monthly interest rates charged by some banks in the interbank market, excluding 5% from the high and the low end). The change in the monetary policy operational design, together with the clean-up of the banking system, narrowed the interest rate band in the interbank credit market: the standard deviation of interest rates (excluding PrivatBank rates) decreased from 3% to 4% in 2015 to 1% to 2% in 2016.

Over half of all of the interbank agreements were intermediary agreements entered into with the purpose of relending money to PrivatBank. This had a significant effect on interbank lending rates. PrivatBank`s borrowing interest rates responded to the change in the key policy rate with the longest lag and to a smaller extent. The spread between the PrivatBank borrowing interest rate and the average interbank interest rate widened gradually from early 2015, exceeding 4 pp in November 2016. Meanwhile, the spread between secured and unsecured loans reached 2.7 pp in late November.

Borrowing interest rates for state- and foreign-owned banks were lower than those for other banks. These rates can be referred to as the most market-driven rates since they were little used in intermediary agreements.

Although the role of the key policy rate was enhanced in 2015-2016[45], the effectiveness of the transmission mechanism will depend, among other things, on developments in the interbank credit market. The recent decision to nationalize the PrivatBank and the steps towards bank resolution will decrease the market segmentation and facilitate a shift to a classical market model amid a liquidity surplus as the main framework underpinning its operations.

Borrowing Interest Rates Broken Down by Group of Banks, %



*Range of weighted average interest rates of selected banks on IBCM excluding highest and lowest 5%.

[45] For more information see: "Transmission of the NBU key policy rate changes to financial markets" https://bank.gov.ua/doccatalog/document?id=38926393.

3. PROSPECTS FOR THE DEVELOPMENT OF THE ECONOMIC SITUATION IN UKRAINE

3.1. ASSUMPTIONS OF THE FORECAST

Global economic growth is expected to accelerate in 2017-2018. This will mainly be attributed to fiscal stimuli that will be issued mostly in the United States and China as global commodity prices gradually rebound. Meanwhile, threats will arise from political risks related to the uncertainty about election outcomes in some European countries, and geopolitical risks related to a possible conflict escalation in the Middle East (Syria, Libya, Yemen), and Ukraine.

The following trends are expected in selected countries worldwide:

GDP growth in the US will accelerate, driven by fiscal expansion. However, higher budget spending and stimulus for domestic demand amid low unemployment will fuel inflationary pressures, prompting the Fed to tighten its monetary policy. Increased economic activity, together with a rise in the Fed's key policy rate, will result in an inflow of investment to the country and, consequently, an outflow of investment from developing economies,

economic growth in the euro area will slow in 2017, followed by a gradual recovery in 2018. The projected slowdown will be driven by low inflation environment, uncertainty around Brexit, and a deteriorating investment climate due to political events. These factors, together with more scarce financing from EU development funds, will also have an adverse impact on Central and Eastern European countries;

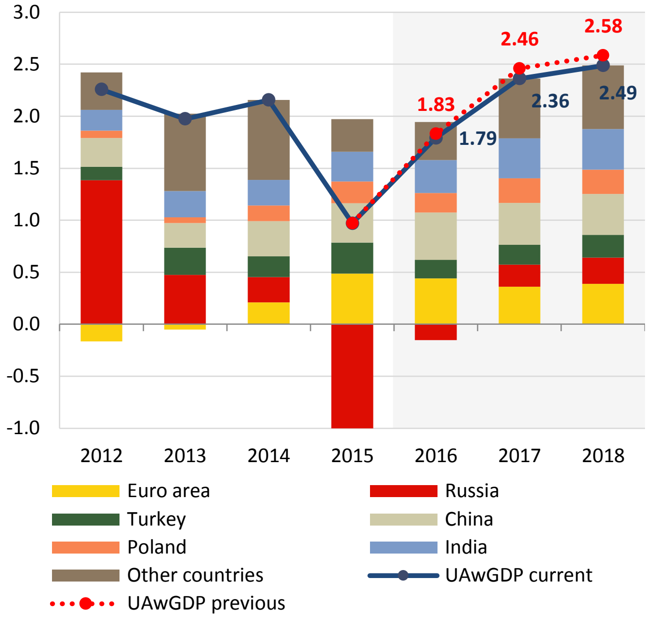
the UK's economic growth will be weaker in 2017, reflecting uncertainty about the implications of the country's withdrawal from the EU. However, the country's underlying economic strength, the expected prolonged withdrawal period, as well as support provided by the country's important trading partner, the US, will help minimize Brexit repercussions;

China's economy, although remaining among the world's fastest growing, will decelerate further. The deceleration will mainly driven by large corporate leverage and the constantly rising vulnerability of the Chinese economy to negative shocks. Mounting political tensions between China and the United States may be an additional factor;

Political instability and security issues will remain the main drags on Turkey's economic growth. However, the country's economy will be boosted by rebounding ferrous metal prices, the competitive advantages for Turkish goods on global markets, gained from a significant depreciation of the country's currency in 2016 and in early 2017, as well as from the partially restored trade relations with Russia. As a result, economic growth, although remaining weaker than in previous years, will accelerate in 2017-2018 versus 2016;

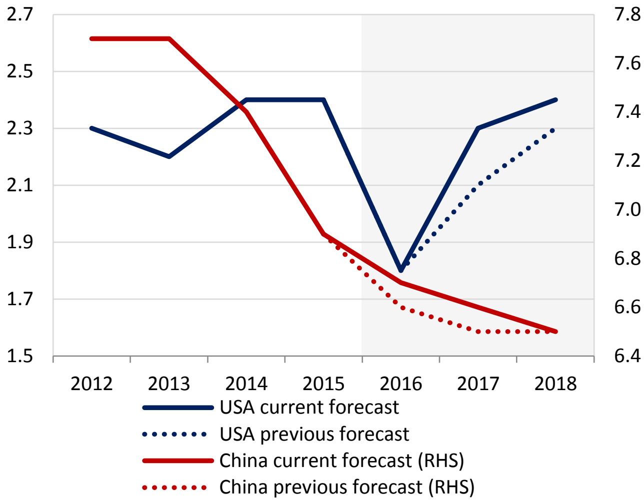
the Russian economy will slowly recover as oil prices stabilize, ferrous metal markets rally, inflationary pressures subside, and domestic demand revives. This will also benefit neighboring countries, such as

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



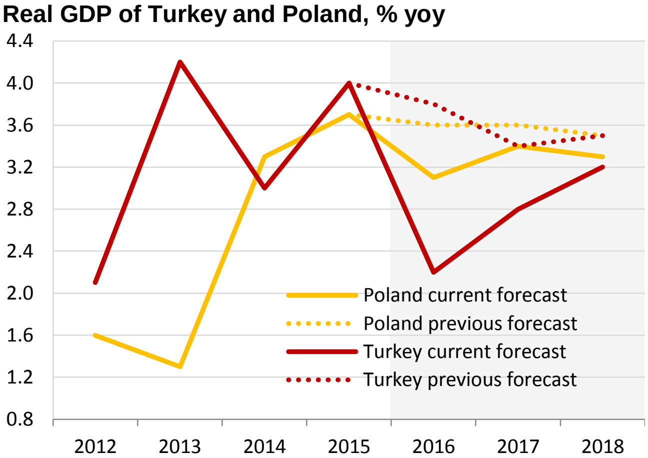
Source: NBU staff estimates (preliminary data)

Real GDP of USA and China, % yoy



Source: NBU staff estimates

Real GDP of Turkey and Poland, % yoy



Source: NBU staff estimates

Kazakhstan and Belarus (although the domestic disparities in Belarus will remain significant, preventing the country from attaining positive GDP growth in 2017). The RUR/USD exchange rate will fluctuate within a narrow band. Appreciation pressures from higher commodity prices will be offset by the central bank's efforts to replenish international reserves, after they were markedly depleted in previous years.

The USD/EUR exchange rate will be influenced by counteracting factors, implying the broadly unchanged exchange rate from the current level. The main factors causing the US dollar to strengthen will be:

a further rise in the Fed's key policy rate in contrast to the ECB's quantitative easing policy;

considerable fiscal stimuli which will push up inflation and, consequently, interest rates on government securities;

political risks in the euro area.

Meanwhile, according to the baseline scenario, an important factor that will prevent the US dollar from strengthening in 2017 will be a smaller rise in the Fed's key policy rate than is currently expected by market players (two rather than three increases). The assumption underlying this scenario is that the newly elected US president will opt for a more moderate economic policy compared to his election promises, and that the Fed will adopt a cautious approach to raising interest rates.

Additional factors may be:

the expected tapering of the ECB's quantitative easing program, which is projected to commence in April 2017;

a pick-up in economic activity in some euro area countries, such as France, Italy, and Spain, amid increased cooperation with the US.

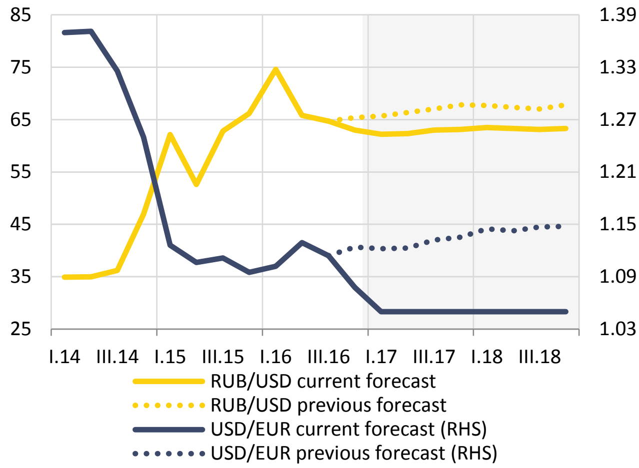
Following a surge in late 2016, prices of Ukraine's main exports will adjust downward. Nevertheless, average prices will be higher than last year, mainly due to increased ferrous metal prices.

Global steel prices will be largely affected by demand from China and the US, as well as the evolving relations between these countries. Thus, the US metal producers expect higher investment in construction and infrastructure. However, the risk of a trade conflict between the US and China may have implications for US imports of Chinese steel. Apart from that, the restrictions that were imposed by the US, the EU, India and some Latin American countries in 2016 will continue to weigh on Chinese steel exports.

In turn, China pledged more cuts to excess steel, coal capacity, although some producers stepped up production in late 2016 to benefit from a surge in prices. Meanwhile substantial infrastructure spending by the Chinese government will increase China's steel consumption.

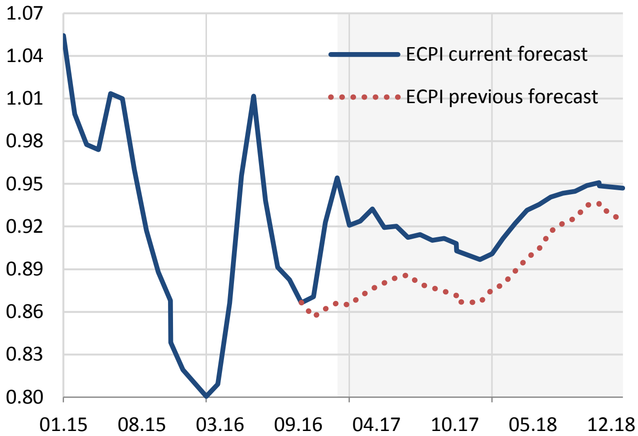
This will push up ferrous metal prices as the global economy gradually revives.

Exchange rate USD/EUR and RUB/USD, quarterly average



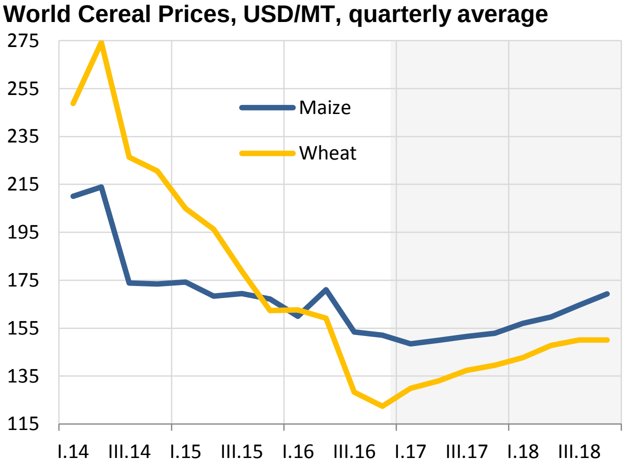
Source: NBU staff estimates

External Commodity Price Index (ECPI)



Source: NBU staff estimates

World Cereal Prices, USD/MT, quarterly average



Source: NBU staff estimates, based on IMF

Following the bottoming out in the second half of 2016, grain prices will gradually rise - in spite of the world-record harvest - as demand rebounds. On average, however, grain prices will be somewhat lower than those of 2016.

Global oil prices are expected to edge up gradually as the main oil producers remain committed to their agreement to cut production. The NBU estimates that the oil price will vary between USD 52-56/bbl. in 2017 and USD 56-62/bbl. in 2018.

However, oil price gains will be capped by:

- renewed shale production in Canada and the US (over the last six months, the number of rigs in the US alone has risen by 40%);

- a partial sale of the strategic oil reserve by the US;

- the US stepping up its planned oil production by 2.5% in 2017 and by another 3.3% in 2018;

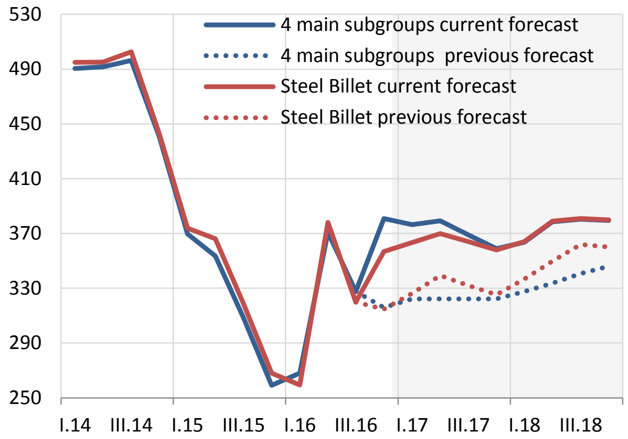
- Iran planning to expand its oil exports, using its oil reserves;

- Iran and Libya intending to boost their production.

Global oil demand will be somewhat subdued in 2017 (up by only 1.2%, according to OPEC), having a neutral effect on oil prices. Notably, a gradual increase in demand from India will be offset by a decline in demand from the EU. In 2018, however, demand from both EU and Asian countries is expected to rise more significantly.

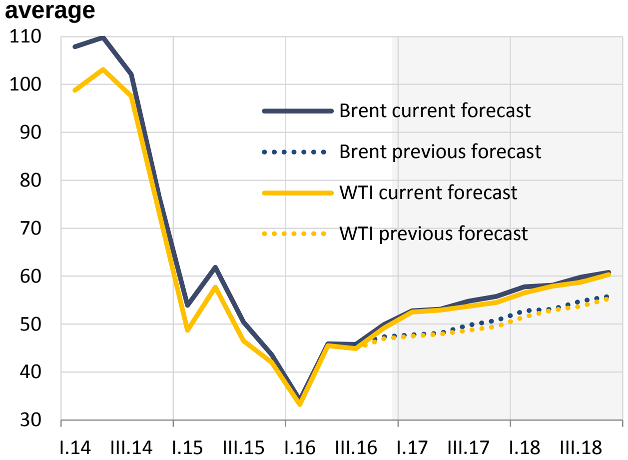
In contrast to the previous forecast, the weighted average of annual GDP growth in Ukraine's main trading partners will increase at a somewhat slower pace. The global price environment, however, will be more favorable than expected earlier due, among other things, to higher steel prices.

Estimated world price of ferrous metals based on 4 main subgroups and Steel Billet Prices*, USD/MT, quarterly average



*Steel Billet Exp FOB Ukraine.
Source: NBU staff estimates, based on Metal Expert

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



Source: NBU staff estimates

	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	0.6	2.4	1.33	38.3	292.5	99.1	481.5	201.2
2015	0.2	12.9	0.7	1.6	-3.7	2.4	1.11	61.0	274.0	52.5	336.1	166.9
2016	1.1	5.4	2.1	1.7	-0.7	1.8	1.11	67.1	194.0	43.9	298.6	153.4
2017	1.1	4.0	2.0	1.3	1.1	2.3	1.05	62.7	227.6	54.1	342.8	142.6
2018	1.4	4.0	2.0	1.4	1.3	2.4	1.05	63.3	258.4	59.1	347.8	154.0
	annual change, %											
2015							*-16.5*	*59.1*	*-6.3*	*-47.0*	*-30.2*	*-17.1*
2016							*0.0*	*10.0*	*-29.2*	*-16.4*	*-11.2*	*-8.1*
2017							*-5.4*	*-6.6*	*17.3*	*23.2*	*14.8*	*-7.0*
2018							*0.0*	*1.0*	*13.5*	*9.2*	*1.4*	*8.0*

* *Average for the year.*

** *Average weighted by volume, excluding oil*

3.2. PRICES

Following a sharp disinflation in 2016, headline inflation will continue to fall over the forecast horizon, albeit at a much slower pace. Inflation projections remain in line with the announced targets: 8% ± 2 pp for 2017 and 6% ± 2 pp for 2018. A large demand shock resulting from a twofold rise in the minimum wage will push inflation closer to the upper limit of the target range (9.1%) in late 2017. However, in 2018 inflation is expected to return to the midpoint of the target range (6.0%).

Higher consumer demand and production costs will put additional pressure on the main inflation components in 2017: core inflation will rise to 6.3%, while raw food inflation will go up to 7.0%. Additionally, the waning supply effects related to export restrictions and large volumes of imports of some foods will spur food price inflation. Meanwhile, lower administered prices remain the main factor behind a slowdown in overall CPI inflation in 2017-2018.

Sound fiscal and monetary policies will help curb inflation in 2018. Core inflation will stabilize at about 5% amid low exchange rate volatility and improved inflation expectations. The fact that some tariffs have already been brought to cost recovery levels will help reduce overall headline inflation.

A two-fold increase in minimum wage will be the main inflationary shock in 2017. Both higher demand and production costs will put upward pressure on inflation. The service sector comprising mainly small businesses, will have to pass additional labor costs and the implicit rise in the fiscal burden on to consumers.

This will drive core inflation up to 6.3% in 2017 versus 5.8% in 2016. Second-round effects arising from higher food-price inflation will be another core inflation driver.

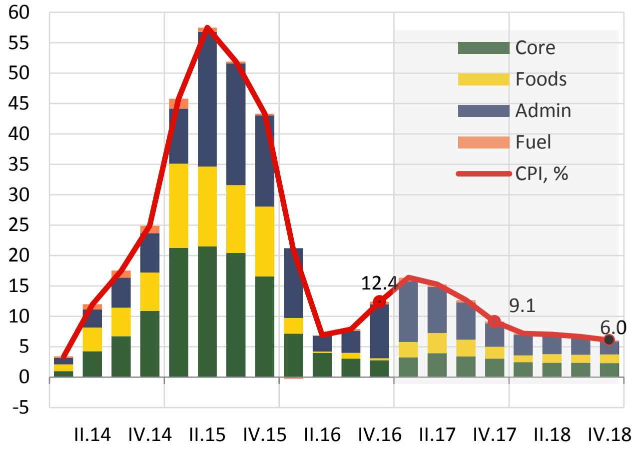
In 2017, core inflation will be restrained by the still high unemployment rate (9.1% according to the ILO methodology), and a reasonably tight monetary policy.

In the middle term, core inflation is expected to stabilize at about 5%. Imported inflation is projected to be low over the forecast horizon amid low-inflation environment in Ukraine's main trading partners and the relatively low volatility of the nominal exchange rate. The volatility of the real exchange rate of the hryvnia is also expected to be relatively low over the forecast period, with weak labor productivity growth in Ukraine restraining the exchange rate strengthening.

Raw food inflation will edge up in 2017 as the supply effects that curbed it in 2016 (mostly due to foreign trade restrictions) gradually wear off. However, the main contributor to the expected rise in raw food inflation (to 7.0% versus 1.2% in 2016) will be stronger demand from the lowest-income stratum of the population, who benefited the most from a two-fold increase in the minimum wage.

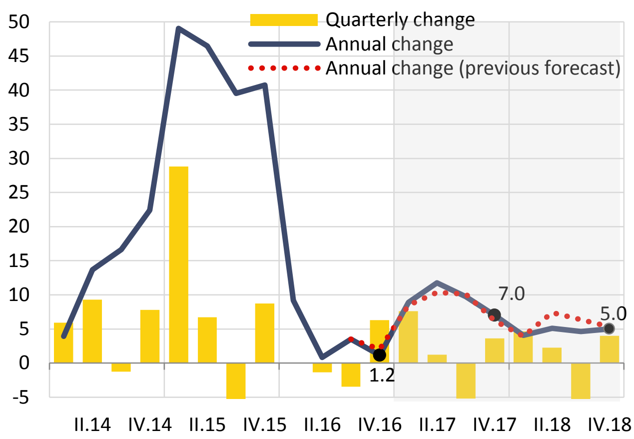
The unprocessed food prices are forecast to go up by 5% in 2018, largely due to a gradual increase in global food prices. Nevertheless, high crop yields, in particular those

Contribution to Annual Growth of CPI, pp



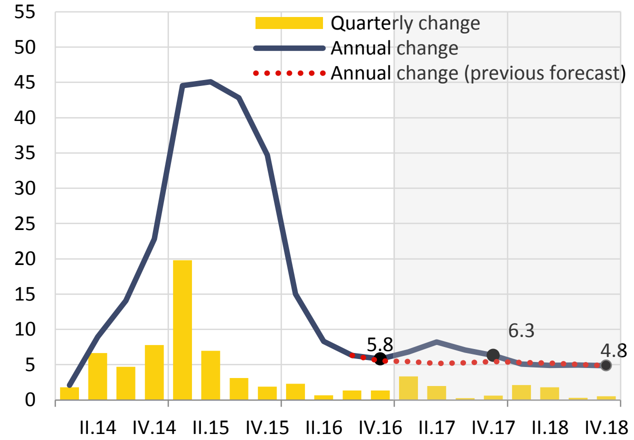
Source: SSSU; NBU staff estimates

Raw Food Inflation, %



Source: SSSU; NBU staff estimates

Core Inflation, %



Source: SSSU; NBU staff estimates

of grain crops, will restrain food-price inflation in the medium term.

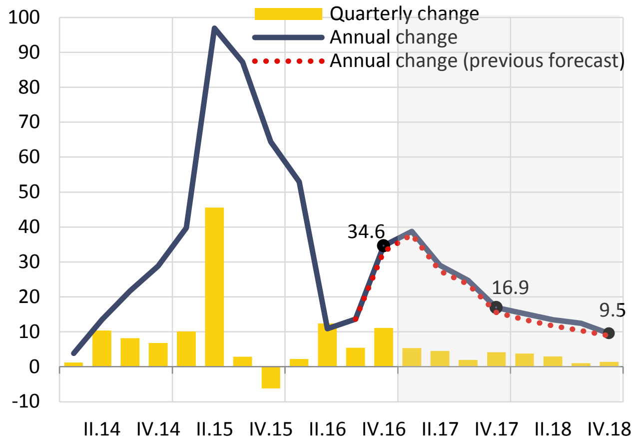
Administered prices are expected to increase by 16.9% in 2017. With the largest contribution to the CPI, they will remain the main inflation driver. Their increase will mainly be attributed to higher prices of energy imports, which are underlying factors affecting gas, central heating and hot water prices for households. A reduction in the price of electricity for industry (as announced by the National Commission for Energy and Utility Price Regulation), being an important component of the production costs of some utilities, will restrain utility price increases.

A rise in the tobacco and alcohol excise tax is expected to push up tobacco and alcohols prices, by 20% and 13% respectively in 2017 and by 13% and 10% in 2018.

The increase in administered prices will slow to 9.5% in 2018, remaining, nonetheless, one of the major inflation drivers. Gas, central heating and hot water prices for households are expected to be revised regularly in response to movements in the prices of energy imports and the hryvnia exchange rate.

Fuel prices are forecast to rise by 16% in 2017 driven by rising global oil prices. Looking ahead, fuel price increases will continue to reflect changes in global oil prices in the hryvnia equivalent, taking into account changes in tax policy.

Administered Prices, %



Source: SSSU; NBU staff estimates

3.3. THE REAL ECONOMY

In 2017 – 2018, economic growth will gradually accelerate to 2.8% and 3.0% respectively (versus 2.5% and 3.5% in the previous forecast). This will be largely due to relatively robust growth in consumer and investment demand, higher exports driven by better terms of trade, last year's bountiful harvest and the resolution of logistical problems both in Ukraine and through the territory of Russia. However, given the still weak underlying growth momentum and slow import substitution processes, stronger domestic demand will be mostly met by imported goods. As a result, the contribution of net exports will remain negative over the forecast horizon. Meanwhile, the decision to raise the minimum wage dramatically will enhance the role of consumption in economic growth.

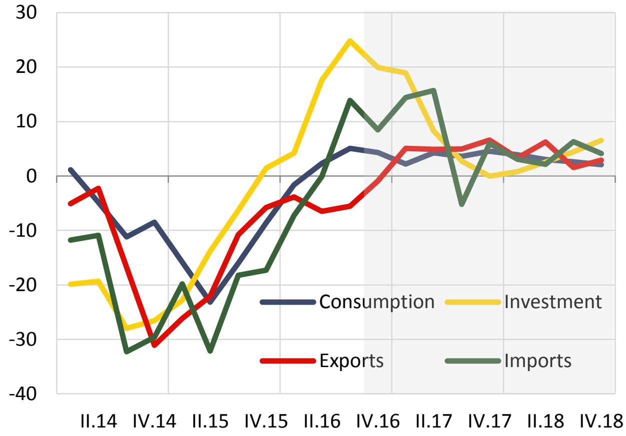
Private consumption is projected to grow by 4.9% in 2017 and by 3.4% in 2018 (versus 3.4% and 2.6% respectively in the previous forecast). This will be attributed to a marked rise in real wages due to the government's decision to double the minimum wage, which has already been reflected in improved consumer sentiment. The NBU believes that this decision will adversely affect unemployment pushing the unemployment rate up by 1 pp (calculated according to the ILO methodology) compared to the previous quarter, which will restrain a revival in domestic demand. In the near term, the NBU expects the government to implement a tighter and more transparent utility subsidy policy, which will encourage consumers to save energy and limit private consumption growth to budget resources available to households. Softening of monetary policy once the undue inflationary pressure has been removed will drive interest rates lower, spurring lending activity and private consumption.

Additional business expenses related to labor costs and labor taxes will weaken investment in the Ukrainian economy further. Therefore, the NBU expects investments to stabilize at levels seen in the second half of 2016, statistically reflected as growth of 5.7% in 2017 (versus 4.3% in the previous forecast). To reduce inflationary pressure, the NBU will have to adopt a cautious approach to easing monetary policy, resulting in a slowdown of investment growth to 4% in the coming year.

Stronger fixed investment growth will drive investment imports higher, in particular machinery and equipment imports. In addition, higher real household incomes will boost demand for imported goods. Accordingly, import growth projections have been adjusted upwards for the entire forecast period: to 7.0% for 2017 versus 3.9% in the previous forecast, and to 3.9% for 2018 versus 3.0%.

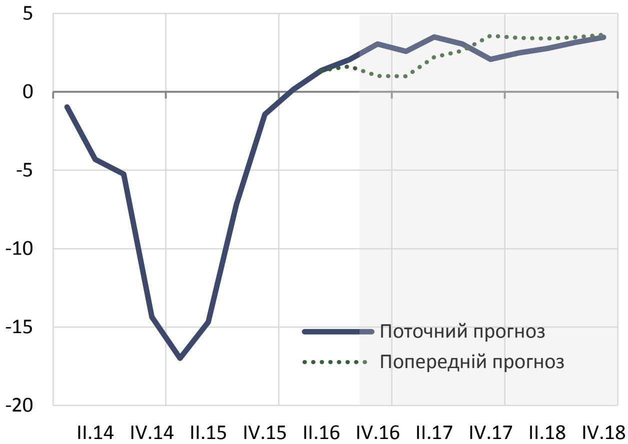
Energy imports will rise driven by both economic growth and the need to replenish stocks in underground gas storages before the next heating season. In the medium term, imported energy growth will be restrained by the implementation of energy-saving solutions (mostly among households, assuming heat supply and gas prices have been brought to cost recovery levels), and domestic production of primary energy resources increased.

GDP Growth by Components, % yoy



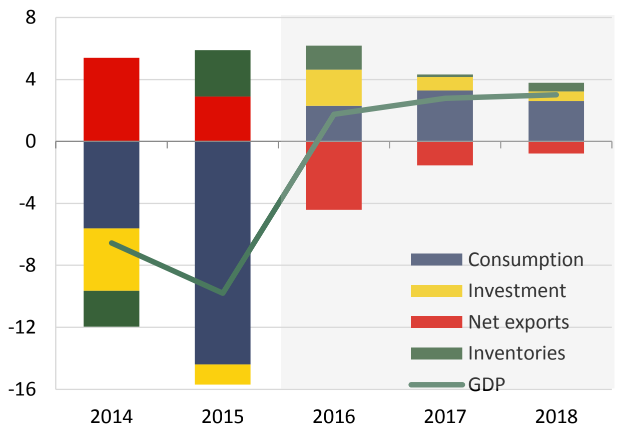
Source: SSSU, NBU staff estimates

Real GDP, % yoy



Source: SSSU, NBU staff estimates

Contributions to Real GDP Growth, pp



Source: NBU staff estimates

Favorable foreign economic conditions and a bountiful harvest of grain and oil-bearing crops projected for 2016-2017 years will push up exports of these commodities by 5.4% in 2017 and by 3.5% in 2018. Meanwhile, a faster than expected rise in the prices of main Ukrainian exports (ferrous metals and iron ore) led to improved export growth projections (2.4% and 3.4% in the previous forecast).

Estimating potential output and the cyclical position of the Ukrainian economy

In late 2016, the yoy decline in potential output growth slowed further. Potential GDP growth is expected to recover in early 2017, accelerating to 2.3% in late 2018.[46] This will mainly be attributed to an improvement in total factor productivity, resulting from the real convergence of the Ukrainian economy with developed economies. Total factor productivity is expected to increase by 3% as risks of military conflict escalation diminish and progress in structural reforms is achieved.

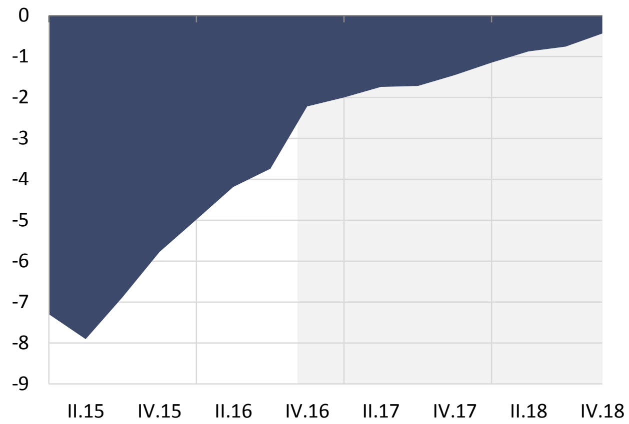
However, an insufficient capital stock continues to be a drag on potential GDP. The NBU estimates that in spite of the significant investment growth seen in Q2 and Q3 2016, fixed asset formation will somewhat lag behind depreciation on fixed capital over the forecast horizon. As a result, the capital stock will keep decreasing in real terms.

Another factor weighing on potential GDP growth is a decline in labor supply resulting from unfavorable demographic processes. Migration will also remain an important factor over the forecast horizon. However, the natural rate of unemployment remains high due to the structural mismatches in the labor market.

Aggregate demand rose faster in Q4 2016 than expected. Accordingly, output gap projections have been revised upwards, to (-2.2%) versus (-4.2%) in the previous forecast. Although remaining negative, the GDP gap is forecast to narrow further over the forecast horizon. This narrowing is attributed to a pick-up in investment activity, and increased propensity of economic agents to make long-term consumer decisions. The restraining effects of fiscal and monetary policies continue to diminish.

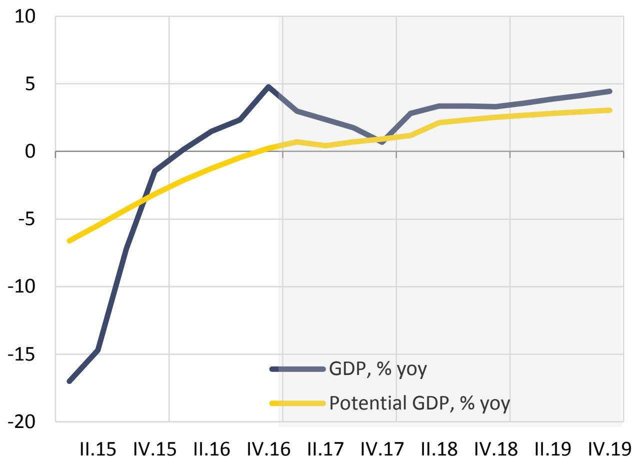
Fiscal policy will provide greater stimulus to aggregate demand (the structural deficit will widen to over 2% of GDP) and focus more on private consumption, largely due to the decision to raise the minimum wage. The NBU estimates that this will increase the share of GDP redistribution through the public sector by 1 pp Overall, however, the deficit of the general government's budget will hover around 3% of GDP, as revenue and expenditure items counterbalance each other. Specifically, increased unified social tax revenues will make it possible to reduce the amount of money transferred from the budget to the pension fund, while a rise in budget expenditures on salaries and wages will be offset by consumption tax revenues.

GDP Gap, %



Source: NBU staff estimates

Potential GDP, % yoy



Source: SSSU, NBU staff estimates

[46] Overall, productivity in developing economies increases faster than in developed ones. This is due to a higher marginal rate of return per unit of capital in developing economies and an opportunity to copy new technologies without having to bear development costs.

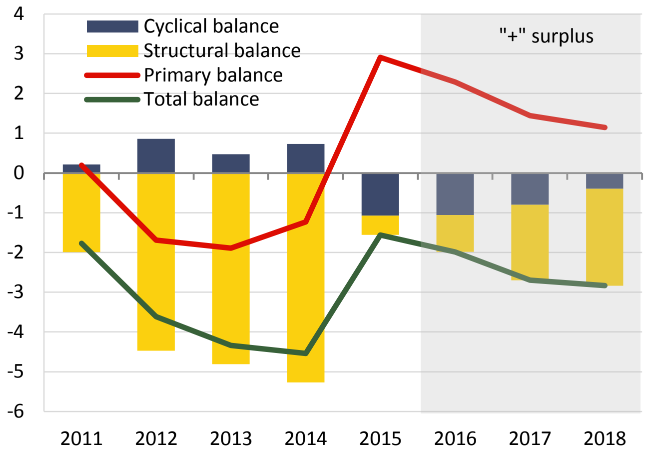
In spite of large debt service expenditures (4% of GDP), the government will seek to achieve a primary consolidated budget surplus (at least 1% of GDP).

In 2017, increases in both tax and non-tax consolidated budget revenues are projected to be significantly higher than the overall inflation rate. The NBU expects that the largest increases will be recorded in individual tax and excise tax revenues (by over 20%). However, considerable increases in spending on salaries and wages and other social spending (such as utility subsidies for households) will restrain public investment capacity. Therefore, capital expenditures will largely be financed by local budgets that recorded significant surpluses in the previous period.

Quasi-fiscal risks diminished markedly after Ukraine's largest systemic bank was nationalized in late 2016. Looking ahead, the quasi-fiscal needs of the banking sector and the Deposit Guarantee Fund will be minor. Naftogaz will also require no budget financing as utility prices have been brought to cost recovery levels.

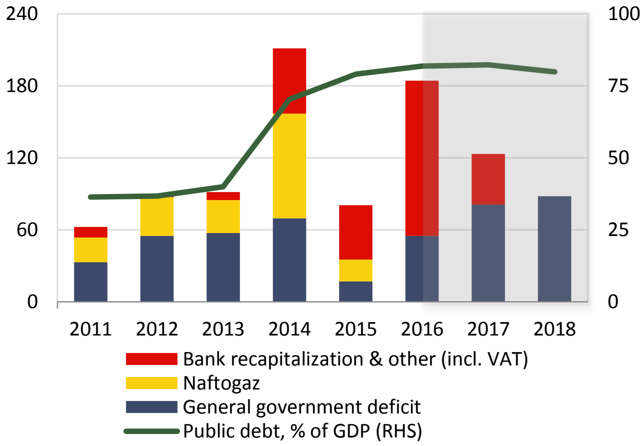
Assuming such fiscal policy is implemented, government and government-guaranteed debt will stay at about 82% of GDP in 2017 and 80% of GDP in 2018.

Consolidated Budget, % of GDP



Source: NBU staff estimates

Public Sector Deficit, UAH bn



Source: NBU staff estimates

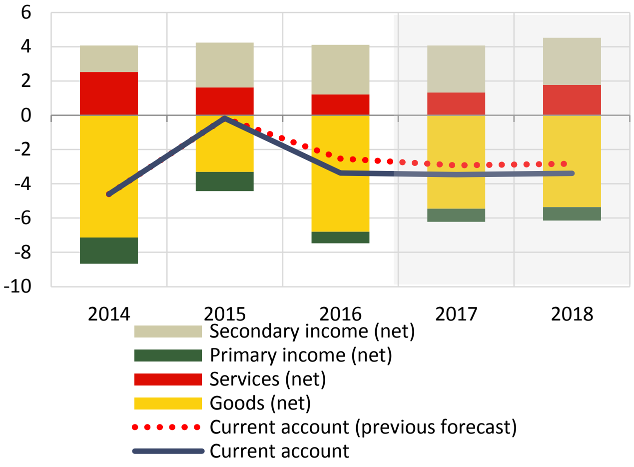
3.4. BALANCE OF PAYMENTS

The NBU expects the 2017-2018 current account deficit to remain almost unchanged compared with 2016. An improvement in the terms of trade will be offset by high investment and consumer imports driven by increases in household income and a moderate appreciation of the hryvnia real effective exchange rate.

In 2017 financial account inflows are projected to be almost the same compared with previous year: slower reduction in FX cash outside banks will be offset by net debt capital inflows. In 2018 not just debt, but also investment inflows are projected to increase further.

As a result, the 2017-2018 overall balance of payments surplus together with IMF financing, will push up international reserves to USD 27.1 bn, or 5.3 months of future imports as of the end-2018.

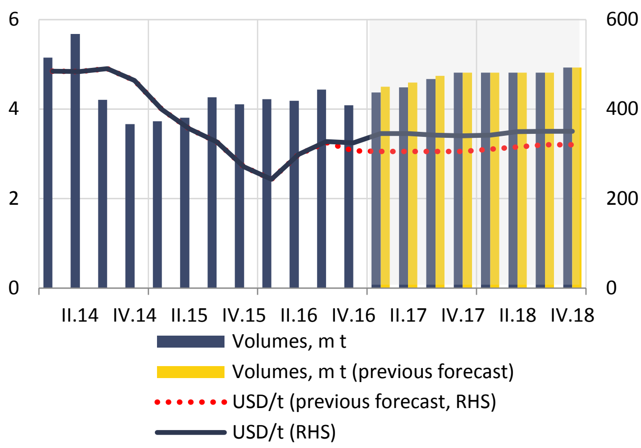
Current Account, USD bn



Source: NBU

In 2017, the current account deficit is expected to remain at 3.5% of GDP or USD 3.5 bn. Better terms of trade in commodity markets and a rising volumes of the ferrous metals and ores exports will be offset by high investment and consumer imports driven by an increase in real household's income and a real effective exchange rate moderate strengthening.

Ferrous Metals Exports (four main sub-groups)

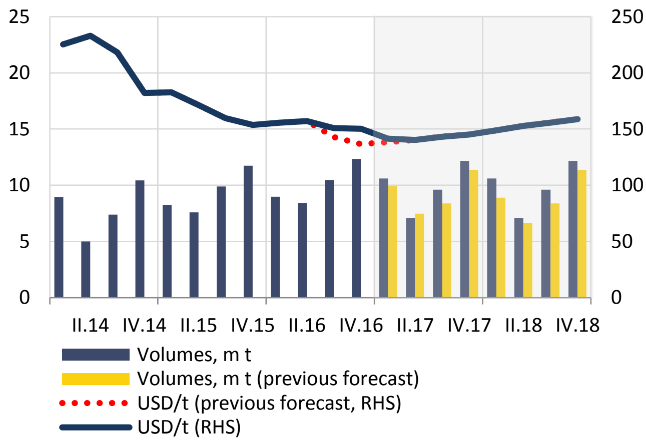


Source: NBU.

In 2017, for the first time since 2012, exports of goods are expected to grow across most of the groups (by 9.2%). This will be mainly attributed to larger metallurgical exports, driven by higher prices and a stronger demand from Asian countries. Also, expansion of machinery exports is expected, as exporters gradually shift to new markets. Oilseeds exports are forecasted to increase driven by higher yields. In spite of a good grain harvest forecast for 2017, a lower average price will slightly reduce exports proceeds.

Projections for exports of goods were revised upwards, reflecting higher metal and ore prices and a better harvest of grain and oilseeds.

Grains Exports



Source: NBU

Imports of goods are expected to grow at a slower pace (7.6%) than exports, driven by increases in both energy and non-energy imports (by 13.2% and 5.8% respectively). Machinery imports will drive non-energy imports growth, largely due to high demand from agricultural enterprises. Food imports are also projected to grow, as consumer demand gradually rebounds. Unlike other imports groups, informal trade is forecasted to remain flat compared with the previous year, reflecting a lower share of cash payments and measures taken to deal with the "shadow" market.

Imports of gas and oil products will grow, driven largely by a rising global oil prices. Also, the volumes of imported gas are expected to rise by 0.5 bn cubic meters, to 11.5 bn cubic meters for the purpose of accumulating gas reserves in the underground storages.

Higher projections for imports of goods versus the previous forecast were attributed to a faster growth of investment demand and an upward revision of informal trade in 2016.

An increase in the services trade surplus will be mostly attributed to a 4.7% rise in exports of services (mainly transportation services, reflecting an increase in trade turnover and higher gas transit prices). Exports of IT-services are also expected to grow further, among other things, due to steamlined registration procedures. A 4.2% rise in imports of services will also be driven mostly by higher imports of transportation services.

In 2017, it is expected that the increased number of the migrant workers will push remittances up by 3.8%. Interest and dividend payments will also rise, as administrative restrictions are relaxed further.

In 2018 the current account is expected to show a deficit of 3.2% of GDP or USD 3.4 bn, as growth in exports is set to match growth in imports of goods and services.

Exports of goods are forecasted to grow by 4.1% in 2018 due to further increases in both commodity prices and export volumes. As before, exports of ferrous metals, driven higher by stronger demand from Asian countries, will be the main contributor to growth. Exports of the other groups of goods will increase, reflecting the acceleration of economic growth in Ukraine's main trading partners.

A 4.3% rise in imports of goods in 2018 is attributed to both non-energy and energy imports. High consumer and investment demand, resulting from an economic upturn in Ukraine, will bring about non-energy import growth. In the meantime, energy import growth will be driven solely by higher gas and oil prices.

In 2018, exports and imports of services will continue growing (by 6.7% and 3.5% respectively), as trade and business activity recover. The increased number of the work migrants will push private remittances up by 3.2%.

Projections for 2017 net financial account inflows have changed only marginally versus last year (USD 4.6 bn). Net debt inflows are expected for the first time since 2013, due to faster economic growth and the stabilization of the political situation.

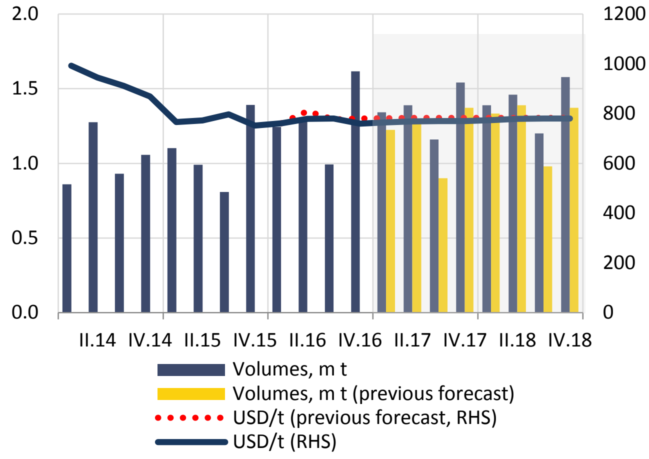
In 2018 a reduction in FDI inflows is expected (USD 1 bn), which is attributed to the fact that in 2016 the bulk of investment was directed to the recapitalization of foreign-owned banks through the debt-to-equity operations. The decceleration of FX cash holdings outside banks will be driven by increased real household incomes and a stabilization of the FX market.

EU loans of USD 1.3 bn and USD 0.3 bn of official financing from other donors are expected in 2017.

As a result, in 2017 the overall balance of payments surplus of USD 1.1 bn along with IMF tranches totaling USD 4.6 bn under the EFF will increase international reserves to USD 21.3 bn, or 4.5 months of future imports.

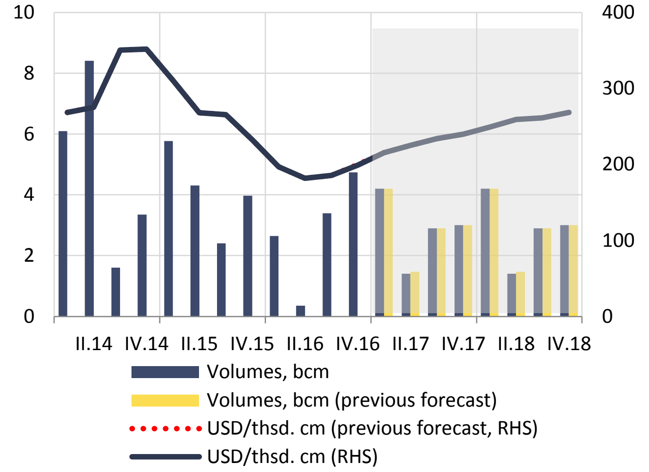
In 2018 financial account inflows are forecasted to increase to USD 7.3 bn, reflecting a better investment climate and higher debt capital inflows. As a result, the rollover of long-term private external debt will go up to 106%, and FDI will rise to USD 2.2 bn, with the real sector being the main FDI recipient. The reduction in FX cash

Exports of Oil Seeds



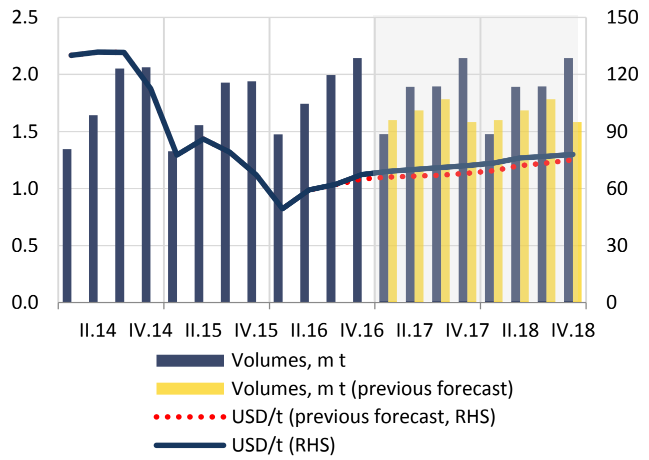
Source: NBU

Gas Imports



Source: NBU

Oil Products Imports

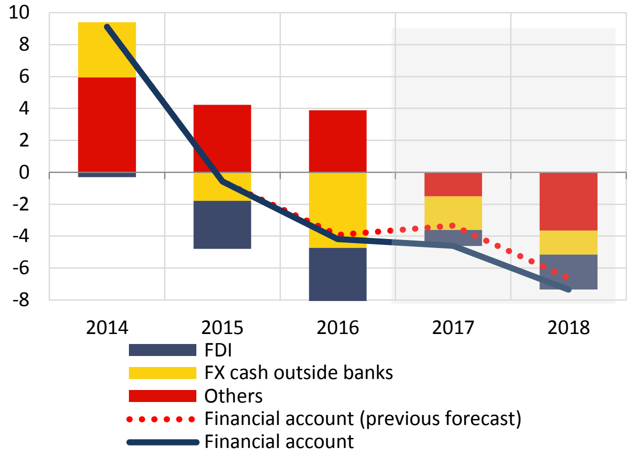


Source: NBU

holdings outside banks will decelerate further to USD 1.5 bn. The government is expected to issue Eurobonds worth USD 2 bn.

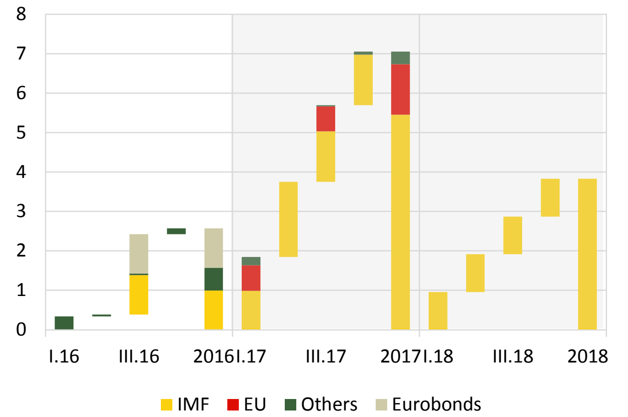
A USD 4.0 bn surplus of the overall balance of payments along with the IMF tranches totaling USD 1.8 bn under the EFF will increase international reserves to USD 27.1 bn or 5.3 months of future imports. This figure will be close to 90% of the IMF's composite measure for reserve adequacy.

Financial account, USD bn



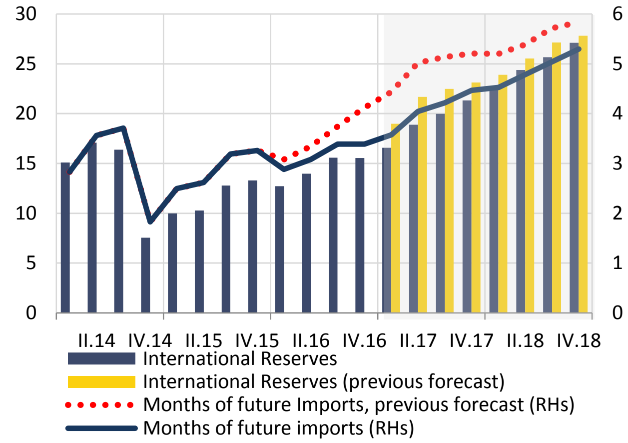
Source: NBU

Official financing in 2016-2018, USD bn



Source: NBU

International Reserves, USD bn



Source: NBU

3.5. MONETARY SECTOR AND FINANCIAL MARKETS

The NBU expects to ease its monetary policy further in 2017, however more slowly than envisaged by the previous forecast. A sustained slowdown in inflation and faster economic growth will raise demand for money, as market interest rates go down.

The banking system will continue to record a liquidity surplus, primarily due to foreign currency purchases by the NBU, aimed at replenishing international reserves.

Both national and foreign currency deposits are projected to grow further in 2017. Deposits will increase faster (13.4%) than cash outside banks (6.7%). The money supply is forecast to increase by 11.5%. The gradual evolution of the banking system and a rise in cashless payments will enhance the money multiplier effect.

The monetary base is expected to grow by about 8%, driven by an increase in both cash outside banks and correspondent account balances.

The main source of liquidity injection into the banking system will be NBU FX purchase auctions held to replenish international reserves. The banking system will continue to record a liquidity surplus.

In the meantime, liquidity will be absorbed through government securities held in the NBU portfolio redeemed upon maturity according to the schedule.

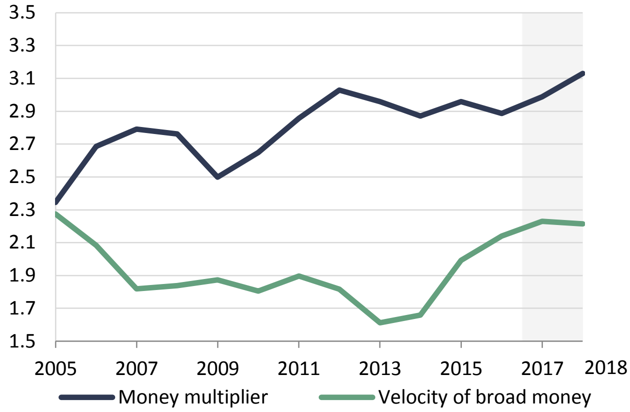
NBU certificates of deposit will remain the main liquidity management tool.

Given a significant reduction in the key policy rate that during 2016 and renewed inflation risks, monetary policy may be eased somewhat more slowly. However, continued efforts to ease monetary conditions will induce banks to lower their interest rates further.

In 2018 inflation is expected to drop further, economic growth will accelerate, and the cost of borrowing will go down, stimulating demand for money.

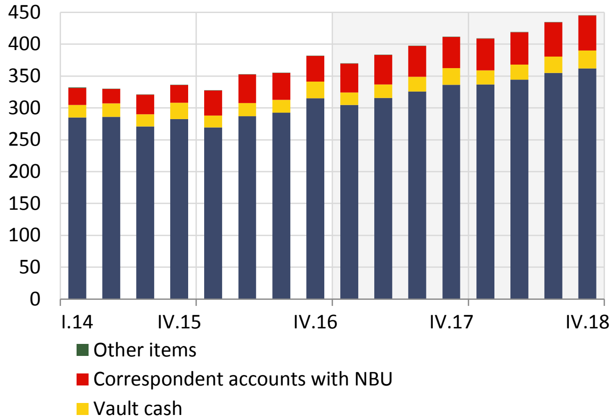
Money supply is forecast to rise by 13% in 2018, driven by increases in both deposits and cash in circulation. With cash payments increasingly substituted by cashless payments, money multiplier will increase further. This will slow the growth of monetary base growth to 8% yoy.

Money multiplier and money velocity



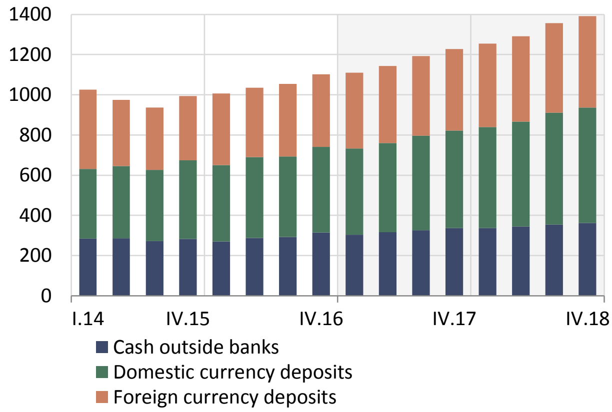
Source: NBU.

Monetary base (components), UAH bn



Source: NBU.

Money supply (aggregates), UAH bn



Source: NBU.

3.6. RISKS TO THE FORECAST

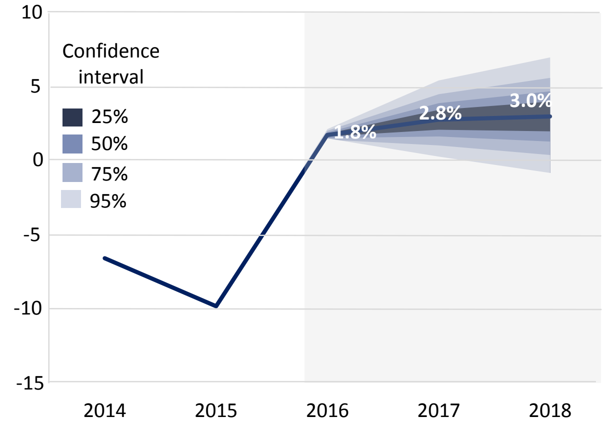
The balance of risks to growth and inflation is viewed as symmetric, however, some internal and external factors will have opposing effects.

In particular, internal risks arise from considerable uncertainty about the implementation of the macroeconomic policy and structural reforms required to maintain macrofinancial stability, boost the economy's potential and continue cooperation with the IMF. The failure of reforms will increase risk premiums, which could worsen inflation and exchange rate expectations and increase inflationary pressure. Apart from that, there is a risk that the military conflict in eastern Ukraine will escalate. Meeting budget parameters and financing the budget deficit from sources other than borrowing, such as money raised through privatizing large energy and production facilities will be important factors for the fiscal sector. However, given slow labor productivity growth, there is a risk that the government will raise social standards to a level higher than that consistent with the meeting of inflation targets. As a result, fiscal policy will be aimed more at current consumption, reducing government investment, widening the current account deficit and increasing the debt burden. Moreover, such policy will weaken the country's external competitiveness, and will have a negative impact on exchange rate prospects as perceived by internal and external economic agents. The impact of the minimum wage rise may also differ from that envisaged in the baseline scenario. This may have implications for the budget deficit, consumer demand and inflation, especially if businesses respond to higher expenses by raising prices more significantly. Additional uncertainty arises from increases in administrated prices, in particular electricity prices. Another risk is related to changes in the state policy of providing subsidies to households, which will have an impact on the aggregate demand in the economy and inflationary pressure by pushing real household income up.

External risks mostly arise from uncertainty as to what policies the newly elected US President Donald Trump will opt for. Stronger fiscal stimuli in the United States may boost global demand for commodities. This will affect Ukraine in two different ways: by pushing export earnings up and stabilizing the exchange rate on the one hand, and by increasing the direct impact of commodity price movements and imported inflation on domestic headline inflation on the other hand. However, faster increases in the Fed's rate in response to such fiscal stimuli will tighten financial conditions for developing economies. For Ukraine, given its limited access to capital markets, the direct effect will be minimal. However, the indirect effect can be fairly significant, due to a deeper decline in the exchange rates and depressed demand in Ukraine's trading partners. This will be felt most strongly by countries (such as Turkey) that are very vulnerable to reversals in capital inflows. Under such conditions, external demand for Ukrainian exports may weaken, with the depreciation of developing currencies to the dollar putting additional pressure on the hryvnia real effective exchange rate.

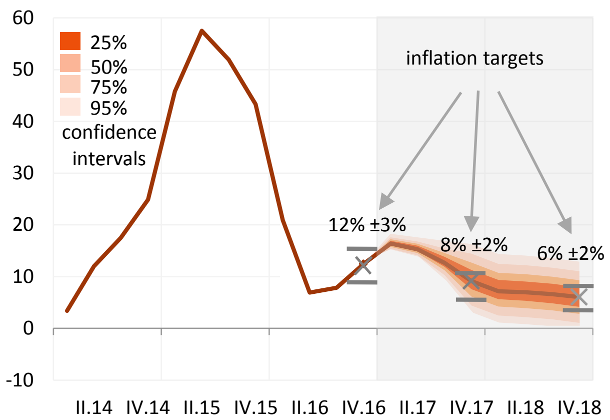
Another risk is related to oil price rises resulting from a decision taken by OPEC countries to limit oil output and

Real GDP projections, yoy change in percent



Source: NBU

CPI projections and inflation targets, yoy change in percent



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.

exports. Ukraine's domestic inflation will be driven higher by both the direct effect on fuel prices and the cost of many goods and services, and the corresponding impact on the external sector and the exchange rate.

If these and other risks materialize during the forecast period, actual inflation may deviate from its projected path, prompting NBU's policy response.

Macroeconomic forecast (January 2017)

Indicators	2013	2014	2015	2016						2017						2018					
				I	II	III	IV	current forecast	forecast 10.2016	I	II	III	IV	current forecast	forecast 10.2016	I	II	III	IV	current forecast	forecast 10.2016
REAL ECONOMY, % yoy, unless otherwise stated																					
Nominal GDP (SNA'2008), UAH bn	**1465**	**1587**	**1989**	453	532	665	708	**2358**	2290	530	628	779	802	**2739**	2627	598	703	877	903	**3081**	2964
Real GDP	**0.0**	**-6.6**	**-9.8**	0.1	1.4	2.0	3.1	**1.8**	1.1	2.6	3.5	3.1	2.1	**2.8**	2.5	2.5	2.8	3.2	3.5	**3.0**	3.5
GDP Deflator	**4.3**	**15.9**	**38.9**					**16.5**	14.4					**13.0**	12.0					**9.2**	9.0
Consumer prices (period average)	-0.3	12.1	48.7	-	-	-	-	11.7	13.8	-	-	-	-	13.3	11.6	-	-	-	-	6.8	6.4
Producer prices (period average)	-0.1	17.1	36.0	-	-	-	-	19.7	18.5	-	-	-	-	18.3	16.7	-	-	-	-	9.7	9.9
Consumer prices (end of period)	**0.5**	**24.9**	**43.3**	1.5	3.5	1.4	5.6	**12.4**	12.0	5.1	2.5	-0.9	2.3	**9.1**	8.0	3.2	2.3	-1.2	1.7	**6.0**	6.0
Core inflation (end of period)	0.1	22.8	34.7	2.3	0.7	1.3	1.4	5.8	5.6	3.3	2.0	0.3	0.6	6.3	5.5	2.1	1.8	0.3	0.5	4.8	4.9
Non-core inflation (end of period)	0.9	26.8	50.9	0.9	5.7	1.4	9.3	18.3	17.8	6.7	2.9	-1.9	3.7	11.6	10.3	4.2	2.7	-2.6	2.7	7.1	7.1
raw foods (end of period)	-2.3	23.2	40.7	-0.1	-1.3	-3.5	6.3	1.2	2.0	7.6	1.2	-5.2	3.6	7.0	6.2	4.6	2.3	-5.6	4.0	5.0	5.3
administrative prices (end of period)	3.5	29.0	64.4	2.2	12.4	5.4	11.1	34.6	33.0	5.4	4.5	1.9	4.2	16.9	15.6	3.8	3.0	1.0	1.4	9.5	8.9
Producer prices (end of period)	**1.7**	**31.8**	**25.4**	4.4	9.1	7.2	11.2	**35.7**	24.9	3.0	2.8	1.9	2.1	**10.2**	10.8	3.1	2.8	1.5	2.0	**9.6**	8.9
FISCAL SECTOR																					
Consolidated budget balance, UAH bn	**-63.6**	**-72.0**	**-30.9**	-	-	-	-	**-54.7**	-59.8	-	-	-	-	**-78.7**	-71.9	-	-	-	-	**-85.8**	-79.9
% of GDP	-4.3	-4.5	-1.6	-	-	-	-	-2.3	-2.6	-	-	-	-	-2.9	-2.7	-	-	-	-	-2.8	-2.7
Public sector fiscal balance (IMF methodology), UAH bn	**-57.5**	**-70.3**	**-17.0**	-	-	-	-	**-55.0**	-64.2	-	-	-	-	**-81.0**	-80.9	-	-	-	-	**-88.1**	-88.2
% of GDP	-3.9	-4.4	-0.9	-	-	-	-	-2.3	-2.8	-	-	-	-	-3.0	-3.1	-	-	-	-	-2.9	-3.0
General government and Naftogaz financing, UAH bn	-85.0	-157.6	-35.2	-	-	-	-	-55.0	-64.2	-	-	-	-	-81.0	-80.9	-	-	-	-	-88.1	-88.2
General government and Naftogaz financing, % of GDP	-5.8	-9.9	-1.8	-	-	-	-	-2.3	-2.8	-	-	-	-	-3.0	-3.1	-	-	-	-	-2.9	-3.0
BALANCE OF PAYMENTS (NBU methodology)																					
Current account balance, USD bn	-16.5	-4.6	-0.2	-1.5	0.5	-1.8	-0.7	-3.4	-2.5	-1.2	-0.5	-1.5	-0.3	-3.5	-2.9	-1.1	-0.4	-1.7	-0.2	-3.4	-2.8
Financial account balance, USD bn	-18.6	9.1	-0.6	-0.6	-0.7	-2.3	-1.0	-4.6	-3.9	-1.2	-0.9	-1.6	-0.8	-4.6	-4.1	-1.7	-1.9	-2.5	-1.2	-7.3	-6.6
BOP overall balance, USD bn	**2.0**	**-13.3**	**0.8**	-0.8	1.2	0.6	0.4	**1.3**	**1.7**	0.0	0.4	0.2	0.6	**1.1**	1.2	0.6	1.5	0.8	1.0	**4.0**	3.8
Gross reserves, USD bn	**20.4**	**7.5**	**13.3**	12.7	14.0	15.6	15.5	**15.5**	**17.5**	16.6	18.9	20.0	21.3	**21.3**	23.1	22.4	24.4	25.7	27.1	**27.1**	27.8
Months of future imports	**3.5**	**1.8**	**3.3**	2.9	3.1	3.4	3.4	**3.4**	**4.1**	3.6	4.0	4.2	4.5	**4.5**	5.2	4.5	4.8	5.0	5.3	**5.3**	5.8
Export of goods, % yoy	-8.3	-14.5	-29.9	-19.9	-3.7	-5.6	7.9	-5.2	-7.2	22.8	4.6	8.5	3.9	9.2	4.2	5.2	4.0	3.4	3.9	4.1	5.5
Import of goods, % yoy	-5.8	-29.0	-32.6	-10.0	-1.1	8.9	16.9	3.8	-2.9	14.3	16.5	5.4	-2.1	7.6	4.7	4.8	2.0	5.5	4.6	4.3	5.0
MONETARY ACCOUNTS (Cumulative since the beginning of the year)																					
Monetary base, %	**20.3**	**8.5**	**0.8**	-2.6	5.0	5.7	13.6	**13.6**	9.5	-3.1	0.4	4.1	7.7	**7.7**	8.4	-0.6	1.9	5.6	8.2	**8.2**	8.2
Broad money, %	**17.6**	**5.3**	**3.9**	1.3	4.2	6.0	10.8	**10.8**	8.9	0.8	3.7	8.3	11.5	**11.5**	13.2	2.2	5.1	10.5	13.3	**13.3**	14.5
Velocity of broad money (end of year)	**1.59**	**1.64**	**2.0**	-	-	-	-	**2.1**	2.1	-	-	-	-	**2.2**	2.1	-	-	-	-	**2.2**	2.1