



Focus
Ukraine

Scope
Economics

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Quarterly Report

Consumers have the spotlight



7 FEBRUARY 2017

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Executive rundown

Below is a brief overview of our base-case, economic scenario for Ukraine over 2017–19.

Domestic politics: A rather smooth ride. In our view, Ukraine's politicians will once again reject the idea of early parliamentary elections, as they did last year. PM Groyshman's government will smoothly enter its second year in office in mid-April, as attempts to stage a vote of confidence in parliament are likely going to be sidelined. Geopolitics are still complicated with regard to the Minsk agreement, which is going to be stalled for another year. But back to Ukraine: PM Groyshman tries to play nice with IFIs (international financial institutions) by adhering to the IMF programme, while at the same time actively seeking to boost the economy. This tactic will keep the occasionally rebellious Radical Party, which holds 21 seats in parliament, at bay. They will likely support the Groyshman government when it counts.

Global economy: New risks emerge. New risks have emerged on the horizon. Developed-market economies—namely, the US and Eurozone—are at the epicentre. After nearly two years of a strong dollar, we see the US's new administration's desire to adjust the trade balance with surplus countries (like Mexico and China first of all, and then Germany and Japan second) as likely to fuel further strength in the US dollar. Instead of an orderly renegotiation of foreign trade, there is a risk that other countries will take countermeasures that would harm US exports instead of boosting them. In the Eurozone, there are tight elections this year—from the Netherlands to France and from Italy (yet to be decided) to Germany—which brings the possibility of surprises similar to those seen last year in the UK and US. Still, in our view, this year's base-line projection is that euro parity with the US dollar is rather unlikely, despite these concerns.

Ukraine's economy is visibly gearing up. Upward momentum is visible, and authorities will be keen to sustain it. Judging from quarterly, seasonally adjusted data, Ukraine's economy has been in recovery since 3Q15, ie, for the past year and a half. Our assessment is that 2016 full-year real GDP rose 1.4% YoY. The current trend data derived from seasonally adjusted series of monthly output volumes from key sectors of the economy—from industry to agriculture, and from trade to construction and transportation—yield a 2.2% real GDP increase in 2017. We project this to be followed by a 2.9% and 2.1% YoY increase in 2018 and 2019, respectively. The IMF programme is on track, as fiscal policy is targeting small, but still meaningful, primary surpluses. A credit revival should make the banking sector viable this year.

Domestic interest and foreign-exchange rates. Monetary policy is set to remain wary of price and FX risks. Hence, we expect gradual cuts in the NBU's policy rate—to 10% from 14%—over the year, alongside expected changes in consumer inflation. FX controls remain tight, as devaluation risks will surface from time to time over 2017. Our in-house analysis of the hryvnia valuation—based on CPI and PPI data from trade partners and their FX rates, past and projected—leads us to conclude that the UAH will become more positively misaligned due to, first of all, a spike in producer prices over 2H16. Still, we argue that there will be a positive balance between the current account and FDI in the coming years. This will help authorities maintain a managed flexibility of UAH. Hence, we expect the hryvnia's FX rate to be at 28.75 to 30/USD by year-end 2017 through 2019.

Geopolitics and domestic politics

In our view, Ukraine's politicians will once again reject the idea of early parliamentary elections, as they did last year. PM Groyzman's government will make a smooth entry into its second year in office in mid-April, as attempts to stage a vote of confidence in parliament are going to be sidelined. Geopolitics are still complicated with regard to the Minsk agreement, which is going to be stalled for another year.

Domestic politics: Government likely to pass on a confidence vote in April

On 14 April, a milestone will be reached in this nation's history: it will be the first one-year period in which parliament does not stage a vote of confidence against the incumbent government. Not that the opposition won't make its presence felt in the media and use the obligations under the IMF programme as a scapegoat to fuel greater disapproval of the government; the opposition will definitely attempt to unsettle the PM Groyzman government and gather enough votes among members of parliament to stage a vote of confidence. But we don't expect these efforts to succeed. There are two factions that are vocally supportive of early elections and the removal of PM Groyzman—Tymoshenko's party and the Opposition Bloc, a faction of the former Party of Regions. In our view, the government has a fair chance of surviving this challenge, since another vocal critic of the authorities, the Radical Party, which has a small faction of MPs in the parliament, has signalled its disapproval of early elections. Incumbent parties in power—both President Poroshenko's Solidarity Bloc and the People's Front of ex-PM Yatsenyuk—do not want early elections, as they most likely would be punished by voters. Hence, we conclude political risk will be rather minimal this year.

Meaning of Trump presidency for Ukraine

Below, we offer our interpretation of the rhetoric of US President Donald Trump and his economic advisors¹ during his campaign (based on various media sources) and from his inauguration speech on 8 November (based upon the transcript provided by *New York Times*²).

International trade

By many accounts, Trump's focus on criticising existing trade agreements is likely to hurt international trade. He wants to renegotiate³ NAFTA (North American Free Trade

¹ Those who were highlighted in this article by Financial Times, 'Who are the team Trump players heading for Washington?' 9 November 2016

<https://www.ft.com/content/6075447c-a53b-11e6-8898-79a99e2a4de6>

² <http://www.nytimes.com/2016/11/10/us/politics/trump-speech-transcript.html>

³ More on a NAFTA risk and Mexico's economy as prime victim is here:

<https://piie.com/blogs/realtime-economic-issues-watch/mexicos-economic-policy-hostage-us-volatility-blame-trump-and>

Agreement) for the sake of “better deals” that “bring back jobs,” as deemed necessary by Trump advisors⁴ and supporters⁵. The spectacular decline of Mexico's currency, which kept pace with Trump's progress toward the White House, indicates that financial markets singled out this economy as the main victim of the new administration's stance on international trade relations. Aside from Mexico, other likely targets for renegotiated deals are the large economies with which the US has sizable trade deficits. China and even Canada, which is part of NAFTA, have been mentioned.

In our opinion, rhetoric like this will cast deflationary expectations on already depressed global demand (see Chart 2 on p.9). Of course, a trade policy like this is nothing new for the global economy, which is still in a drawn-out recovery from the Global Financial Crisis. In the recent past, many economies were quite devastated by a series of crises that effectively lowered aggregate demand and, hence, their imports. Examples include the Eurozone economies impacted from the debt crisis (from Greece to Italy) and once-proud BRIC members like Brazil and Russia, which went through local currency devaluations and committed to imposing fiscal austerity in the coming years (via freezing state budget expenditures for a 20-year period in real terms and a three-year period in nominal terms, respectively). However, it is remarkable that an economic superpower like the US, which is the epicentre and architect of the international trade system, is on a path to negatively impact global trade by its own policies.

All in all, the above indicates that a Trump presidency locks the world economy into an extended period of global trade stagnation. This is our base-case scenario, with a 50-60% probability. Our worst-case scenario, outright contraction, has a significant chance of materialising⁶.

Monetary and fiscal policies

Trump's stance on a federal government-devised stimulus, via monetary and fiscal policy, sounds quite sensible in some areas while in others it introduces controversy, in our view. There is recognition among the Trump camp that the US economy is stuck in a low-growth phase, that monetary policy has not been successful, and that some sort of policy coordination between monetary and fiscal authorities is needed⁷; hence, Trump's promise to boost infrastructure spending by the federal government.

However, here starts the above-mentioned controversy. Trump's fiscal stimulus includes a range of tax cuts, which is expected to benefit the wealthy more than those with middle and lower incomes, whose support catapulted Trump into the White House. Other evidence suggests that sweeping deregulation is being prepared to boost the economy. Hence, there is a natural tendency by a Republican-led administration to rely on the foundations of supply-side economics, which has as its core the concept of small government.

In addition, there is also the fact that the Republican party, which typically dislikes both increasing the federal budget deficit and public spending, now controls both houses of congress. This could put the Trump administration in a difficult position with regard to

⁴ <http://video.cnn.com/gallery/?video=3000526009>

⁵ <https://www.theguardian.com/us-news/2016/nov/09/donald-trump-ohio-youngstown-voters>

⁶ This means that our worst-case scenario has a probability of unfolding that by far outweighs the probability of the best-case scenario with a global trade recovery. Hence, the former has 30-40% probability, while the latter has no more than 10% probability.

⁷ <http://video.cnn.com/gallery/?video=3000526007>

appropriate fiscal stimulus, which would be more about expenditures and less about cutting taxes. The GOP for sure will welcome the latter and restrict the former, in our view. That is likely to leave middle- and lower-income voters dissatisfied over time, forcing Trump to resort to further opportunistic tactics, challenging his own party and, at the extreme, turning to Democrats for a bipartisan solution in this and other issues.

The current hope that the above-mentioned mix of fiscal stimulus will 'trickle-down' to the working man is likely to encounter dismay, when it's realised that measures centred on supply-side economics, and stimulus measures of demand-side economics (via federal government spending), were not bold enough.

Hence, the continuance of acute political polarisation in the US—among those factors responsible for the anti-establishment vote this early November—is likely.

In our view, in today's financial markets, there is one major misallocation, and that is the US dollar, which has been the strongest currency out of major global currencies at least since 2015 (see Chart 1, p.8). This dislocation has developed amid a promise of interest rate increases by the Fed, which have not taken place. Moreover, Trump's economic policy mix is not aggressive enough. Combine that with a profound aversion to increasing public debt by the GOP, and this dislocation is not likely to change. Moreover, Trump's foreign policy views that put American interests first will not help, should the time come for coordination with the other major economic powers for FX adjustment to make the US dollar less dear, which we see as quite likely.

US-Russia relations and Ukraine

It is widely accepted that a Trump presidency will be accommodative to the Kremlin. In our view, the actual steps being taken by the new US administration in that direction may prove over time to be naïve from the outset. As has emerged recently, outgoing President Obama initiated a reset policy toward Russia at the beginning of his presidency, and we see what that led to. Washington under Trump may be misreading geopolitics the same way the previous administration did.

Nevertheless, we expect the US State Department under President Trump to double down on trying to affect a peaceful solution to Crimea and eastern Donbas, Ukraine's territories affected by Russia military aggression. We expect that at a Trump-Putin summit, the Kremlin will seek elimination of sanctions and an official recognition by the US that Crimea is part of Russia.

Our concern is these solutions will be sold to Ukraine's leaders on the grounds of an ill-judged projection that after a Crimea and eastern Donbas settlement, Ukraine-Russia trade flows will be restored to the pre-war volumes, ie, Russian imports from Ukraine restored. In our view, this is a misguided approach, which would benefit Russia's economy rather than Ukraine's. As we mentioned above, Russia's aggregate demand has been cut, firstly by a macroeconomic adjustment that was well overdue. Contraction of aggregate demand in Russia was sizeable, as depicted by collapsing imports in the group of countries in this region, where Russia is by far the largest economy by many measures, including imports, (see Chart 5 on pp.10). It was not the result of Western sanctions, which were secondary and, if anything, helped Kremlin to convince the little people that Russia's economic woes were the result of unfriendly Western powers and not domestic policymaking failures.

Instead, in our view, a more likely scenario will be as follows. We expect the Trump-Putin honeymoon to last until the US administration realises that Kremlin's meddling in the US's affairs does stop with the recent elections. The bigger prize for the Kremlin could be a

furthering of internal political polarisation inside the Western world, particularly in the US and EU. The key here is that modern authoritarian regimes long for foreign instability, as it pays off by strengthening their domestic situation despite a poor economy.

But we see a silver lining. The US presidential elections proved, once again, to be an excellent exercise in democracy. This fact is difficult to beat for authoritarian regimes, especially in the heavily controlled and democratically restrained parts of the world such as those that border Ukraine's northeast. In our opinion, despite the surprises and volatility in the process, democracy addresses popular concerns there is progress. This is not the case under authoritarian regimes. And herein lies the key risk going forward in terms of geopolitics.

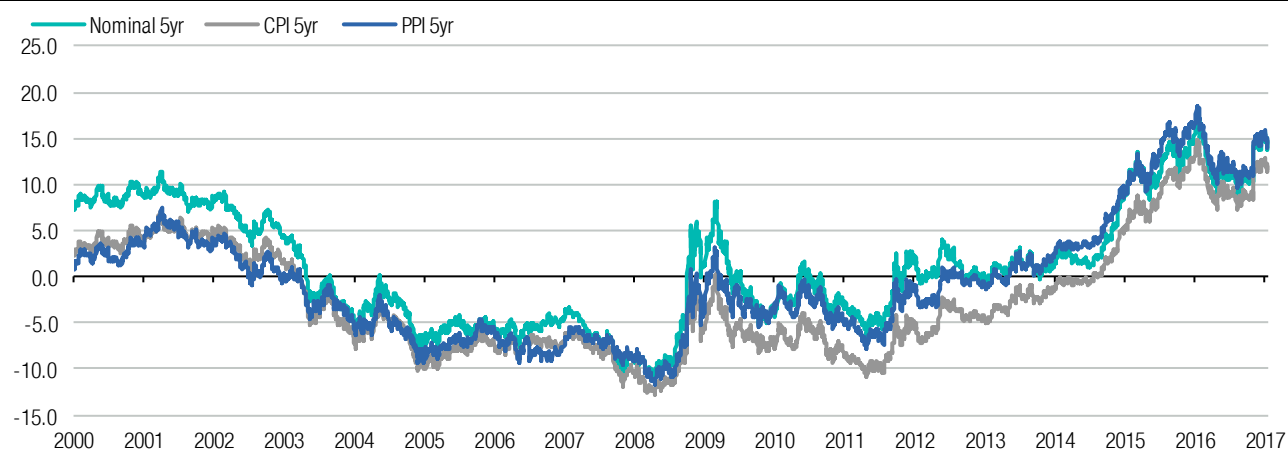
Above, we noted that Russia's authorities committed to fiscal austerity for the coming three-year period (via freezing government expenditures in nominal terms), despite the fact that the public debt level is low by international standards. A DC-based, economic policy think-tank analyst whom we spoke to recently acknowledged there is much "more Washington consensus in Moscow than in Washington' itself." This is a reference to restrictive policies adopted by Russia against a backdrop of increasing talk of shifting from monetary to fiscal stimulus in the West. In our view, Russia's economy is bound for volatility, including in financial markets and/or in government's response toward managing the economic transition. Restrictive economic policies are unlikely to survive long even in Russia. That is why the above-mentioned risk of unstable geopolitics will remain.

Conclusions: Impact on Ukraine's economy

The results of the US election indicate that there is little chance that global economic growth accelerates. Hence, there is little chance for Ukraine's net trade position—which is still in deficit after the sizable currency devaluation of 2014–15—to turn into a meaningful surplus anytime soon. For that to happen, it would require another sizeable devaluation of the local currency, the hryvnia. This step would be a no-go politically for Ukraine's policymakers. And that is why, in our view, they will stick with relatively restrictive monetary and fiscal policies for the near term. This implies that Ukraine's central bank will be reluctant to aggressively cut the policy rate (ie, through 10% and into single-digits). In our view, Ukraine's authorities will stick to the IMF programme, and will take steps to meet the requirements of the next tranche in order to boost gross FX reserves. The flip side of this will be a sub-par growth environment, ie, well below 3% and closer to 2%, indicating a very tepid recovery after an approximate 17% GDP loss in real terms over 2014 and 1H15.

Chart 1. US dollar misalignment: positive area values mean currency is tending dearer, while negative ones cheaper, as defined by ICU's in-house FX analysis methodology*

Daily history from 1 January 2000 through 19 January 2017



* A currency misalignment is defined by three trade-weighted indices (nominal and CPI- and PPI-based real ones) by subtracting five-year moving average of the index from its value at each point of time. Source: ICU.

Geopolitics: Year of political risk in the West

In the US, newly sworn-in President Trump has declared a policy of "America First!". At the same time, in the EU, there is growing political risk this year. There will be elections in several major EU countries in 2017, including the Netherlands (March), France (April–May), Germany (September–October), and possibly Italy, too. In each election, there is an increased risk that citizens will vote out the incumbent parties. Alarming, for Ukraine, politicians who are challenging EU's political establishment in one way or another are keen to dismiss the issue of Russia's military aggression against Ukraine's territories. They seem to want to forget it and get over it. This brings an urgency to consolidating existing coalitions among the ruling parties of President Poroshenko and ex-PM Yatsenyuk with loyal smaller factions in the parliament. Hence, this supports our base-case scenario that Ukraine's decisionmakers would rather not take the risk of staging early elections this year or even next. This should cement the current economic recovery that started in 3Q15.

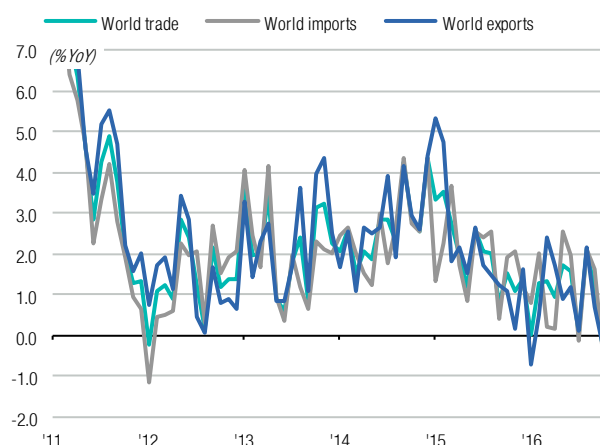
Russia is eager to win over the Trump administration in the matters of sanctions, the Minsk agreement, and recognition of the Crimea annexation. Trump will face bipartisan objection to a deal of this kind or so-called cooperation with Kremlin. Hence, Ukraine's need for military defence against Russia's military aggression extends beyond 2017.

Chart 2. Growth rates of global trade flows through November 2016 over last 16 years (left) and 6 years (right) (% YoY)

Monthly history since January 2000



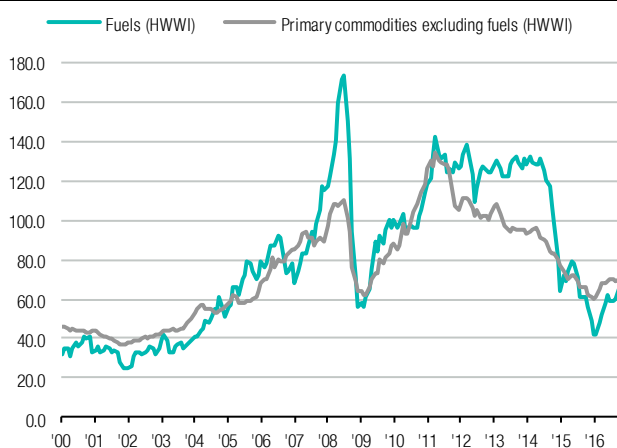
Monthly history since January 2011



Note: developed and emerging economies. Source: CPB Netherlands Bureau for Economic Policy Analysis.

Chart 3. Price indices: breakdown by commodities (unit values in US\$)

Seasonally-adjusted data. History from January 2000 through November 2016



Source: CPB Netherlands Bureau for Economic Policy Analysis.

Chart 4. Price indices: breakdown by trade flow (unit values in US\$) (%YoY)

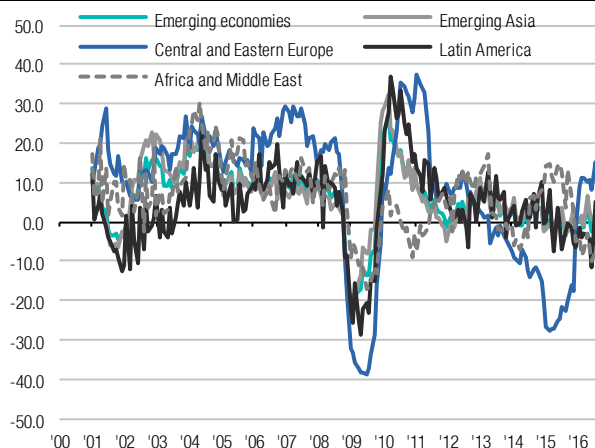
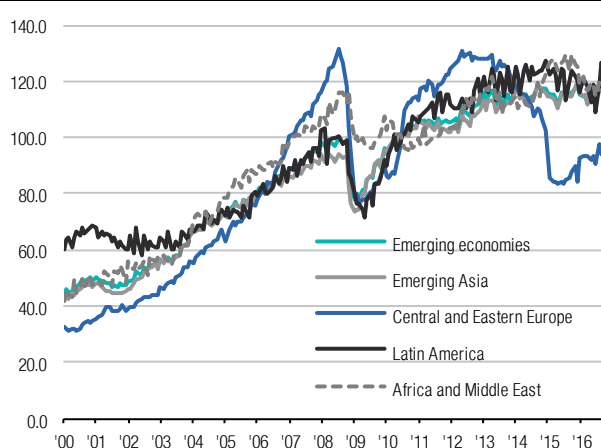
Seasonally-adjusted data. History from January 2000 through November 2016



Source: CPB Netherlands Bureau for Economic Policy Analysis.

Chart 5. Emerging economies' imports data: indices (left) and growth rates (%YoY, right)

Seasonally-adjusted data. History from January 2000 through November 2016



Note: Central and Eastern Europe – the group of countries that comprises Russia, Kazakhstan, Ukraine, Belarus, Armenia. Source: CPB Netherlands Bureau for Economic Policy Analysis.

Global economy

New risks have emerged on the horizon. Developed-market economies—namely, the US and Eurozone—are at the epicentre.

Developed economies: US, Eurozone

United States

In the section above, we discussed the implications of the Trump presidency for Ukraine from the point of view of economics and geopolitics. From there, we naturally expanded into wider issues like foreign trade, and fiscal and monetary policy. Here, we expand on those issues, taking into account the most recent developments in the US.

In the spotlight are trade relations with major partners that have a surplus with the US.

Steve Schwarzman, Blackstone CEO, who speaks directly with the Trump administration on matters concerning the economy and financial markets, said on 17 January at the World Economic Forum in Davos, "There is a desire to lower the overall trade deficit of the United States. There is room for significant improvements [meaning trade-deficit reduction]."¹⁵

Wilbur Ross, nominee for Commerce Secretary, singled out China as the key target of US foreign trade policy initiatives. On 18 January during a Senate committee hearing¹⁶, he said, "We cannot afford trade that is inherently bad for American workers and for American businesses. There are plenty of opportunities to expand our exports. And, I think the number-one objective will be expanding our exports. China is the most protectionist country of the very large countries, hence, they have both high tariff barriers and very high non-trade barriers to comers. So, they talk much more about free trade than they actually practice. We would like to level that playing field." He also highlighted this approach¹⁷: aim to be "self-sufficient in fishing" and then become "exporters" of fishing.

President Trump himself, during his inauguration speech, proclaimed "the forgotten of this country will not be forgotten anymore"... "we will bring back our dreams, jobs," and urged the public to "buy American and hire American". This was a reference to exports as well as a desire to double real GDP growth rate from just above 2% a year toward 4% a year.

Summing up the above, one could come to the conclusion that the US administration is going to "fix" the issue of the foreign trade deficit by (at least) narrowing it. The fact of a dear dollar (at least over past two years) plays against US authorities' current stance, ie, dollar strength will stimulate, not narrow, wider deficits. Also, US authorities' desire to fix trade with surplus countries (like Mexico and China first of all) would fuel further strength in the US dollar, which plays against the Trump administration's desire to have trade

¹⁵ Full interview with *Wall Street Journal*: <http://www.wsj.com/video/blackstone-ceo-trump-to-seek-bilateral-trade-deals-with-vigor/F99680B9-2D4F-4023-90A3-E18F93E13BA0.html>

¹⁶ Extracts by *Wall Street Journal*: <http://www.wsj.com/video/wilbur-ross-takes-on-china-in-hearing/A8F8AAAE-BA2B-4836-B797-5876454C5A67.html>

¹⁷ See full video webcast here: <http://www.commerce.senate.gov/public/index.cfm/2017/1/nomination-hearing-wilbur-ross>

surpluses against some countries and in some sectors (like the above-mentioned fishing sector). Instead of an orderly renegotiation of foreign trade, there is therefore the risk that foreign countries will take countermeasures that would harm US exports instead of boosting them. So, the trade deficit is likely to remain. It is unrealistic, in our view, to reverse the US's deficit with China—which accounts for half of the entire US trade deficit—into a surplus or even into a much smaller deficit.

Chart 6. Long view on US foreign trade in goods and services through 3Q16 (% of GDP)

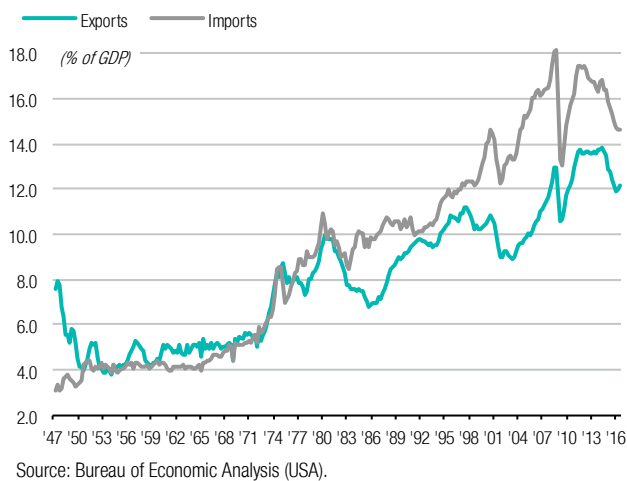


Chart 7. US sectoral balances through 3Q16 (% of GDP)

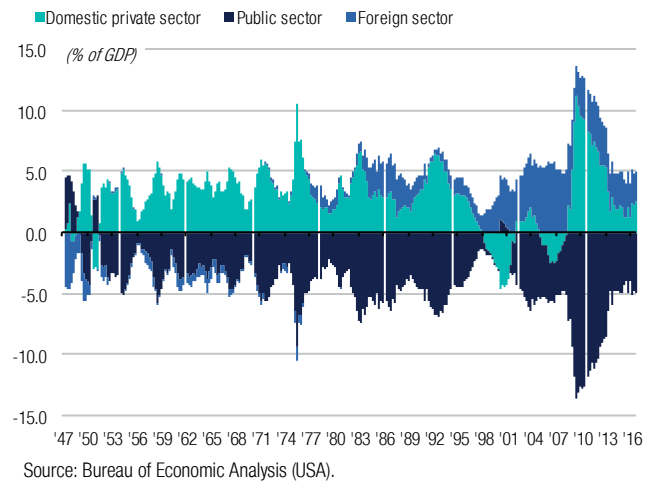


Chart 8. US deficits with two main trade partners (US\$bn, monthly volumes)

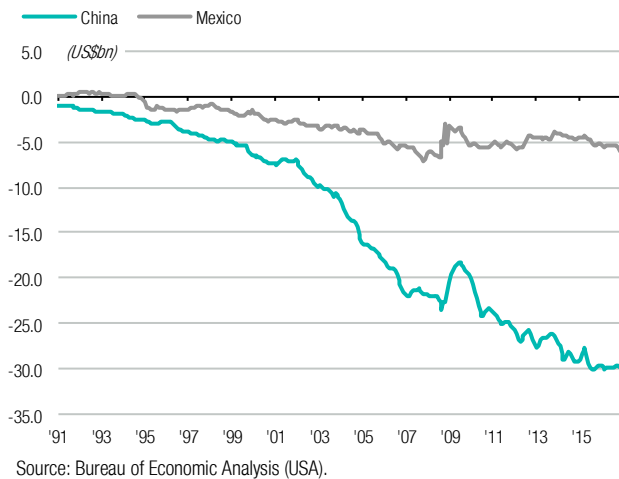
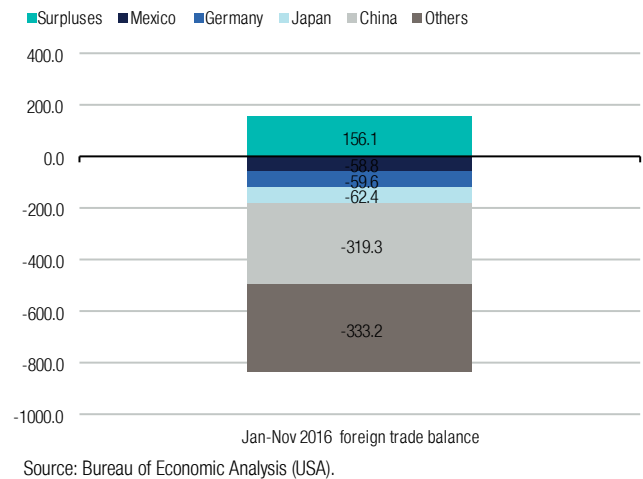


Chart 9. US foreign trade balance for January–November 2016 (% of GDP)



Something else to be concerned about is the Republican Party's domination of the legislature, and the Trump administration's push for wide-ranging deregulation. GOP lawmakers generally dislike government deficits and increases in public debt; hence, they would corral Trump's economic advisers toward the private sector's involvement in infrastructure development and so on. Here, the latter issue—deregulation, including of the financial sector—should aid the Trump administration with financing, as banks are going to be encouraged (not discouraged) to lend to businesses. Here, we should take a look at the future structure of sectoral balances in the US (see Chart 7 above) and increased risk of the private-sector balance turning toward a deficit at some point. In the past—from the late 1990s and up to the 2008 crisis—there were two episodes of persistent private-sector

deficits in the US. Both periods ended with recession. In the last episode (namely, in 2007–08) the economic downturn was so severe that it earned the widely accepted name, the ‘Great Recession.’

This has given rise to the tricky situation at the Fed, which has flagged the possibility of three rate hikes over the course of 2017 (ie, from 0.75% to 1.5%). This has been dictated by improvements in the labour market, which is near "full employment," as the unemployment rate reached 4.9% by year-end 2016. This has also been driven by the Trump administration's rhetoric, which emphasised a fiscal boost to the economy, deregulation, and unleashing the "animal spirits" of businesses. Lastly, Trump and his economic advisors have indicated that they will replace Janet Yellen when her term expires.

Eurozone

Given the Fed's current stance, and financial markets' expectations on US long-term rates (10-year note yields 2.43%), there are other pro-dollar elements in the sovereign bond markets, as the euro-denominated sovereign yield of Germany stands at 0.38% for the same term. The prospects for an interest rate differential between USD and EUR-denominated sovereign debt is quite directional—the current 2ppt gap is to persist over this year. Hence, it must provide support to the US dollar's value versus the euro.

The Eurozone this year is earmarked with political risk, with several elections planned. The first elections are in the Netherlands this March, then presidential elections in France will be held in April-May, then Germany in September-October. There is a possibility of early elections in Italy after last year's referendum results, which forced then PM Matteo Renzi to resign. In all countries, public preferences for alternative political parties have increased over the past years, creating in some countries momentum for them to win the elections. Many of the alternative parties have an agenda to challenge the economic powers of Brussels (on fiscal policy) and Frankfurt (on monetary policy). Some openly support an exit from Eurozone membership.

With this risk, the interest-rate prospects in the Eurozone are to have German sovereign bond yields at low levels, as demand for them is going to be high. This reflects market participants' fears of euro-denominated liabilities of countries that are at risk, while euro-denominated liabilities of the German government are considered safe, because the German economy is the best prepared to withstand a possible future Eurozone crisis, and honour its government's liabilities in due course.

Hence, the German 10-year sovereign bond yield is likely to have a ceiling of 0.4–0.5%, and could be even lower if Eurozone risks become heightened due to anti-euro election results. Hence, conditions are for a stronger USD and weaker EUR. However, judging from the German economy's performance—real GDP growth staying firm, unemployment rate at near full-employment, current-account surplus at an all-time high—these factors indicate that the current level of the currency is too weak for this economy. Thus, if overnight, Germany were the only country in the euro, the euro would spike in value. Hence, we argue that over the course of 2017, as events progress toward the end of the year and election results are known, chances of a stronger euro are more likely than a weaker euro. Hence, we exclude parity of the euro with the US dollar by year-end, arguing that this is less likely than appreciation of the Eurozone currency.

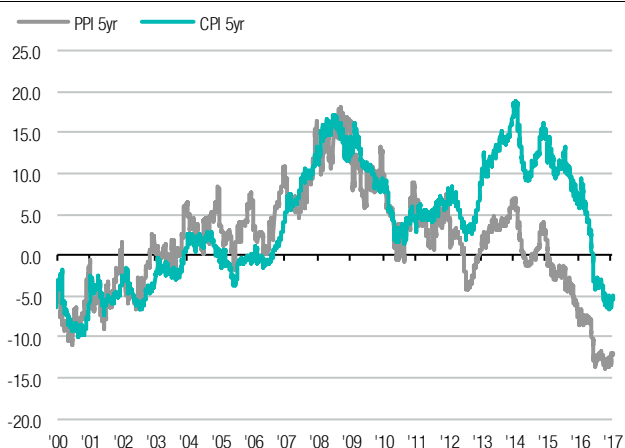
Emerging economies: China and India, two standing BRICs

Of the BRIC countries, only the two largest, China and India, have relatively smoothly weathered the 2014-15 storm of macro adjustment across EM economies. The other two—Brazil and Russia—were both in recession last year, and are expected to recover this year. In our view, these diverging macroeconomic paths among the BRICs could be explained by penetration of FX debt in the economies; China and India have less, while Russia and Brazil have by far much more.

We thus focus on China and Russia, as these economies are among the largest trading partners of Ukraine. In our view, there is a great deal of state intervention in the Chinese economy and markets. Hence, the recent debacle in the off-shore yuan market, where the interbank rate jumped as high as 100% in a day, is an example of how authorities are capable of staging a liquidity squeeze and punish those market participants who bet on more CNH weakness (beyond 7/USD). In this respect, we have the view that China's government and central bank retain a great deal of influence on the markets, and will refrain from allowing disorderly FX adjustment. Indeed, credit creation was massive in 2016, and hence, there is a great risk of demand for liquidity and for FX rate adjustment. However, authorities will likely remain tough on capital controls. Our base-case view is that an upward trend of inflation in China will push up the real value of the yuan over this year, and China's central bank will come to a point when it will allow greater FX flexibility. Hence, we project the USD/CNY rate to be back to 6.8–6.9/USD later this year, and even ending the year in the 6.9–7.0/USD range.

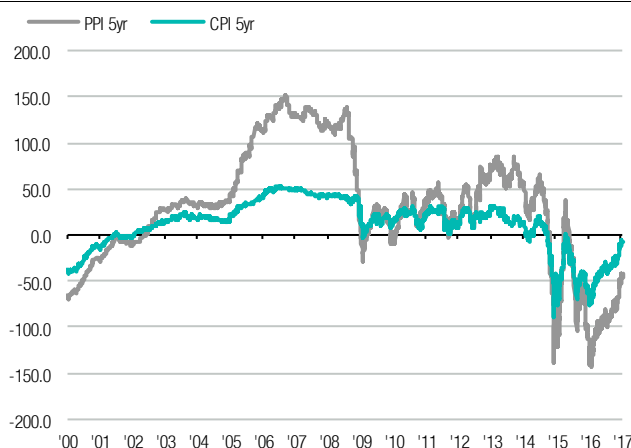
As far as Russia is concerned, our view is that it returned to growth at the end of 2016 (in quarter-on-quarter seasonally-adjusted terms), and is poised to enjoy real GDP growth rates in 2017–18. Russian authorities remain cautious, as they retain a tough fiscal and monetary stance. While crude oil was priced up into the 50–60/USD range (while the state budget assumes a 40/USD price), the government is not going to relax its tight fiscal stance. Instead, it will rebuild FX reserves, which were drawn down last year to support expenditures. Slow growth is explained also by the appreciation of the ruble, which was up 22% during 2016 in nominal terms, and its appreciation in real terms was even more sizable. This should play against exporters. Going into 2017–18, the ruble is projected to be back inside the 60-70/USD range.

Chart 10. China's currency yuan (CNY) daily misalignment



Source: ICU.

Chart 11. Russia's currency ruble (RUB) daily misalignment



Source: ICU.

Key indicators vital for Ukraine's economy

Growth assumptions

As a rule, our projections are based upon the IMF's view on global growth, which has been revised in January's update of *World Economic Outlook*¹⁸. World economic growth is forecast at 3.4% in 2017 and 3.6% in 2018, according to IMF projections, while no acceleration is expected in 2019, hence, +3.6% YoY in that year. The Eurozone economy is going to experience a slowdown in 2017 due to the elections; hence, after a +1.7% YoY in 2016, it will likely record +1.5% YoY in 2017. In 2018–19, we expect growth to pick up marginally, to +1.6% YoY for both years. The Russian economy is set to grow 1.0% in 2017, as fiscal austerity is going to be a drag. This will be lifted during the presidential elections in 2018, and we will likely see some growth acceleration toward 1.2%. In 2018–19, we will likely see a reshuffle of Kremlin's economic team, which will introduce policies to increase household incomes. We maintain our view that a slow-growth environment persists, and will inhibit the Russia economy. Our 2019 forecast is +1.9% YoY.

Commodities

In the commodities markets, all eyes are on the crude oil price, which broke through the US\$50/bbl threshold recently. While the long-term correlation between the dollar index (DXY) and crude prices historically has been negative by about 80% or even more (see Chart 13 on pp.8), it turned positive in the past 365 days, when higher crude prices coincided with a stronger dollar. This positive correlation used to be temporary, and then correct. This time, however, the normalisation is more likely to take place on the back of the US dollar retreating from the recent high of 103 points toward 100 points. As noted above, the Fed is set to make three rate increases (of 25bp each) in 2017. Given the US macro story, as well as the risks of the Eurozone political and economic story, we expect the USD to fluctuate between 99–105 points, where the highs would represent positive surprises from the Trump administration and the lows, disappointments.

For crude oil (WTI), our projections are centred around a range of US\$55–60/bbl for the period forecast. Regarding steel prices, the range of our projections is US\$450–500/tonne. (See details in Chart 14–Chart 17 and subsequent table all on p.9.)

¹⁸ See <http://www.imf.org/external/pubs/ft/weo/2017/update/01/index.htm>

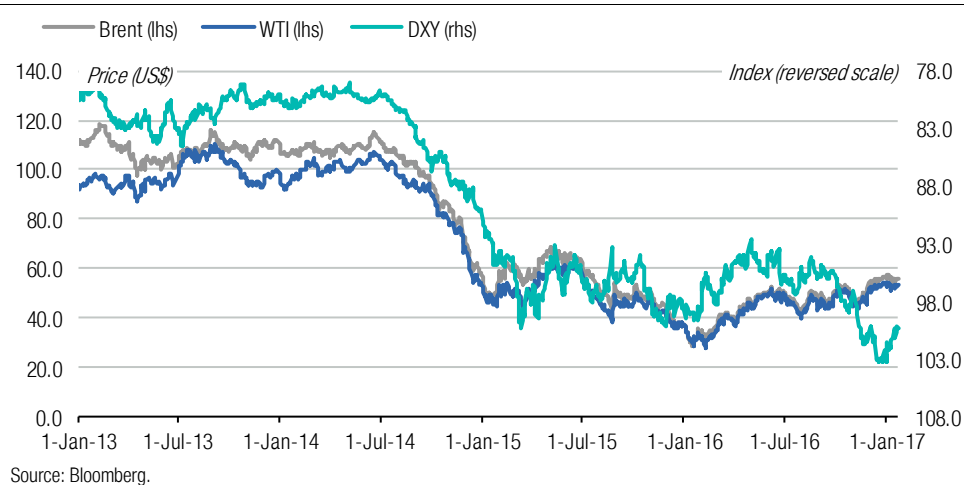
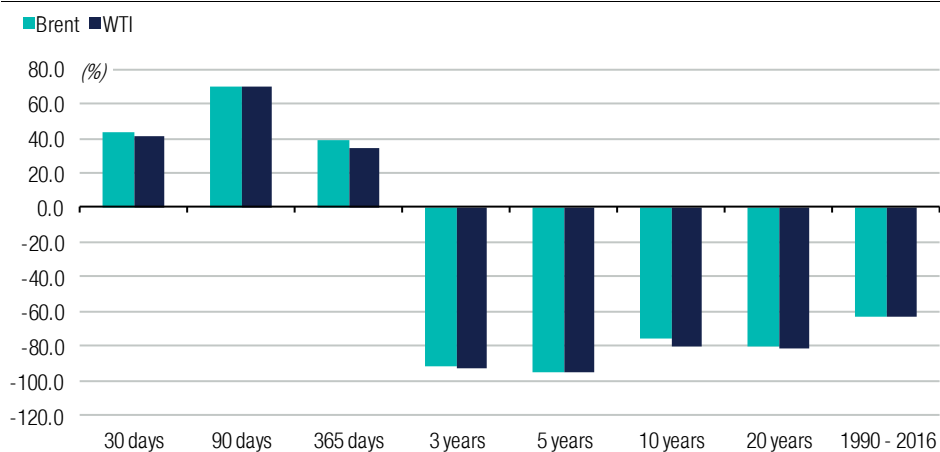
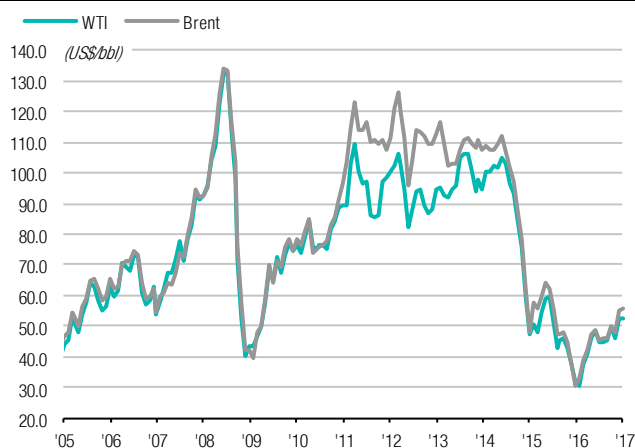
Chart 12. Market valuation of US dollar (via dollar index, DXY) and of crude oil (US\$/bbl)*Daily history since 1 January 2016 through 24 January 2017***Chart 13. Correlation ratios between DXY index and crude oil prices Brent and WTI (%)**

Chart 14. Crude oil price (US\$ per barrel)

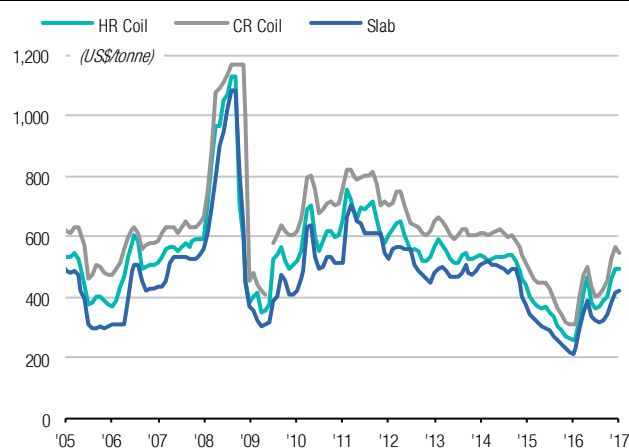
Monthly averages since January 2005 through January 2017



Sources: Bloomberg, ICU.

Chart 15. CIS export steel prices (US\$ per tonne)

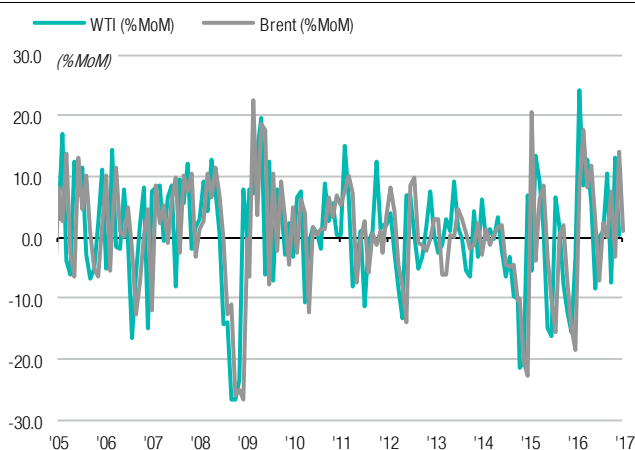
Monthly averages since January 2005 through January 2017



Sources: Bloomberg, ICU.

Chart 16. Monthly changes in crude oil prices: WTI, Brent (% MoM)

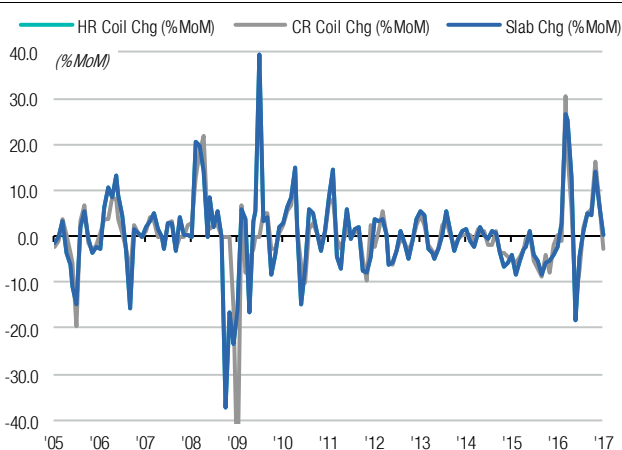
Monthly averages since January 2005 through January 2017



Sources: Bloomberg, ICU.

Chart 17. Monthly changes in CIS steel prices (% MoM)

Monthly averages since January 2005 through January 2017



Sources: Bloomberg, ICU.

Table 1. ICU's 3-year quarterly and yearly forecast for the global economy's key indicators vital to Ukraine's economy, according to our base-case scenario for 2017-19

	Quarterly forecast														Annual forecast			
	3Q16	4Q16F	1Q17F	2Q17F	3Q17F	4Q17F	1Q18F	2Q18F	3Q18F	4Q18F	1Q19F	2Q19F	3Q19F	4Q19F	2016E	2017	2018	2019
World real GDP ¹ (%YoY)	3.1	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.1	3.4	3.4	3.5
Russia real GDP (%YoY)	-1.0	-1.0	1.0	1.0	0.5	0.0	1.0	1.5	1.5	1.0	1.5	2.0	2.0	2.0	-0.9	0.6	1.3	1.9
Crude oil ^{2,4} (US\$/bbl, avg)	44.9	50.2	51.6	52.9	54.3	57.0	56.6	56.2	55.8	55.0	55.0	54.6	54.2	53.8	43.5	54.0	55.9	54.4
Steel ^{3,4} (US\$/tonne, avg)	373.0	363.0	363.0	363.0	364.0	365.0	373.0	380.0	388.0	395.0	400.0	405.0	410.0	415.0	361.0	363.8	384.0	407.5
EUR in US\$ (eop)	1.11	1.09	1.08	1.08	1.10	1.10	1.10	1.11	1.12	1.13	1.13	1.14	1.15	1.20	1.09	1.10	1.13	1.20
US\$ in RUB (eop)	62.88	66.00	67.00	68.00	69.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	66.00	70.00	70.00	70.00

Notes: [1] real GDP growth rate to previous year; [2] crude oil price is WTI crude and priced as per barrel; [3] steel price is HR coil price and priced as per tonne; [4] crude oil and steel prices are the average for the period.

Source: ICU.

Ukraine's economy: Update & outlook

The economy is visibly gearing up. Upward momentum is visible, and authorities will be keen to sustain it. The IMF programme is on track, as fiscal policy is targeting small, but still meaningful, primary surpluses. A credit revival should revitalise the banking sector this year. Monetary policy is set to remain wary of price and FX risks; hence, we expect gradual cuts in NBU's policy rate (to 10% from 14%) over the year alongside expected changes in consumer inflation. FX controls remain tight, as devaluation risks will surface from time to time over 2017.

Economic activity in 2H16: Initially slowing; upturn to follow

In our opinion, Ukraine's economic quarterly performance indicates that the second half of 2016 was a period of slowdown, a view not widely held among local or foreign Ukraine watchers. Rather, some see an upturn, taking into account year-on-year real GDP growth, which, indeed, accelerated from a near-flat 1Q (+0.1% YoY) to +1.4% and +1.8% recorded in 2Q and 3Q, respectively. However, our in-house analysis of quarterly growth figures resulted in a different conclusion. Our method takes into account first, quarter-on-quarter seasonally adjusted non-annualised rate of real GDP growth (SA QoQ), and second, last four-quarters cumulative growth rate based on SA QoQ. Official statistics revealed that SA QoQ rates for the first three quarters were, -0.7%, +0.6% and +1.0%, respectively. While official data for 4Q is not available yet, our estimate yields +0.7% SA QoQ. If the last four-quarter cumulative rate is taken into account, then growth translates into these rates for each quarter of 2016: +0.4%; +2.4%; +2.3%; and +1.6%. Hence, the second half represented a slowing trend. This was because the current recovery started in 2H15, when accelerated government spending produced +1.1% and +1.4% SA QoQ rates in their respective quarters. Going forward, we project that a six-quarter recovery will hold in 2017. This translates into a 2.2% full-year growth rate, which is an upturn after the above-mentioned slowing.

Table 2. Performance of key sectors of Ukraine's economy in November and during September–November 2016

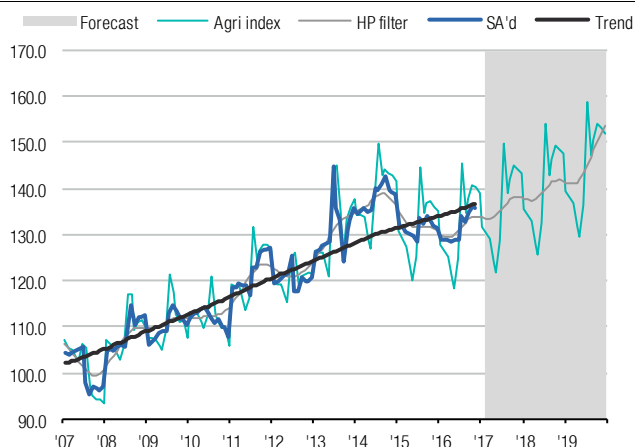
Sector's Indicator	Seasonally adjusted*			Trend*		
	Change ¹ (%MoM)	Change ² (%QoQ)	Change ³ (%YoY)	Change ¹ (%MoM)	Change ² (%QoQ)	Change ³ (%YoY)
Agriculture index	-0.3	+2.9	+2.9	+0.2	+0.6	+2.3
Retail trade, retailers (UAHm, CPI-adj)	+1.5	+2.1	+9.7	+10.3	+4.8	+13.3
Transport turnover, cargo (tonne*km)	+1.1	+3.2	+4.5	+5.3	+4.2	+2.2
Transport turnover, passenger (passenger*km)	-0.6	-0.3	+3.0	-3.0	-0.6	-0.4
Industrial production index	+0.4	+1.3	+1.0	+2.5	+1.8	+2.2
Construction (UAHm, CPI-adj)	-0.7	+1.7	+11.9	-0.4	+2.7	+12.5
Composite index	+0.5	+2.1	+4.3	+3.9	+2.4	+5.1

Notes: * adjusted by Demetra using adjustment method of Tramo-Seats; [1] month-on-month change of November of 2016 to October 2016; [2] quarter-on-quarter change of Sep-Nov of 2016 to Jun-Aug of 2016; [3] year-on-year change of November of 2016 to November of 2015.

Source: State Statistics Service of Ukraine, ICU.

Chart 18. Agriculture production index

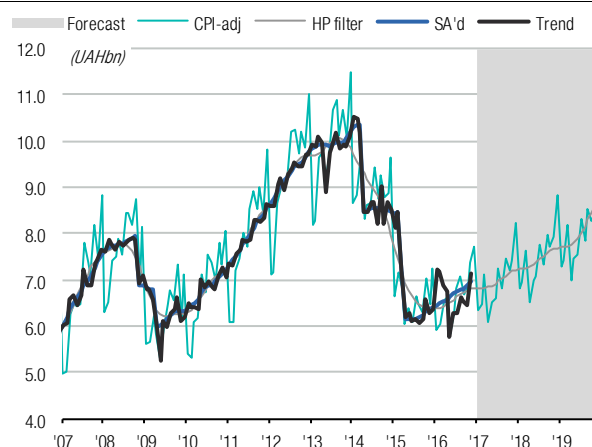
History (from January 2007 through November 2016), forecast for 2017-19



Source: State Statistics Service of Ukraine, ICU.

Chart 19. Retail trade (UAHbn, in constant prices of Dec-1999)

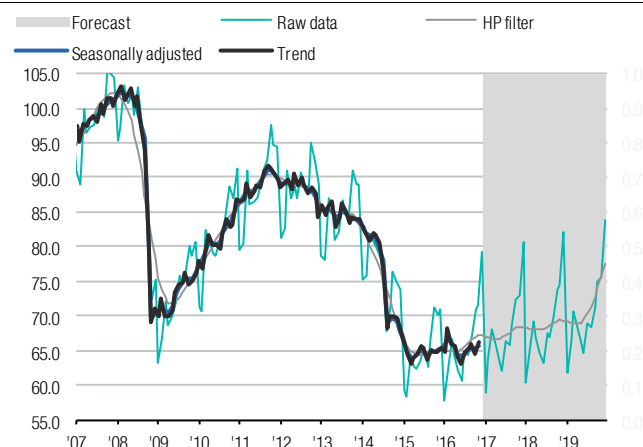
History (from January 2007 through November 2016), forecast for 2017-19



Source: State Statistics Service of Ukraine, ICU.

Chart 20. Industrial production index

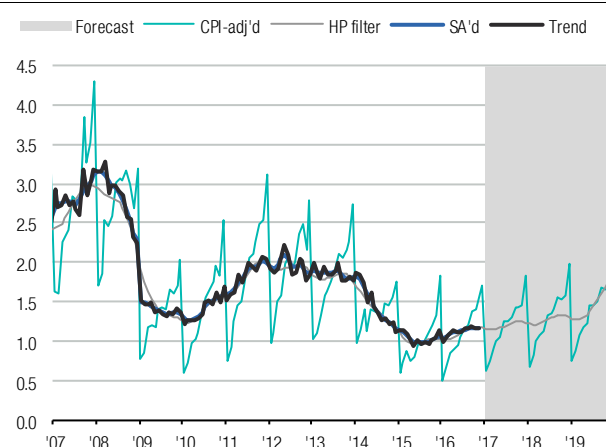
History (from January 2007 through November 2016), forecast for 2017-19



Source: State Statistics Service of Ukraine, ICU.

Chart 21. Construction (UAHbn, in constant prices of Dec-2001)

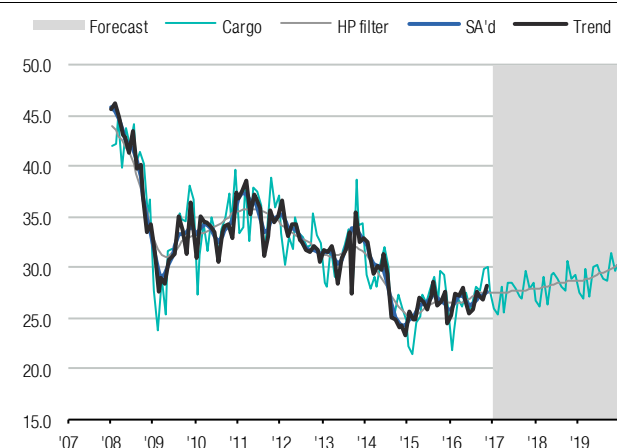
History (from January 2007 through November 2016), forecast for 2017-19



Source: State Statistics Service of Ukraine, ICU.

Chart 22. Cargo transportation turnover (m tonne * km)

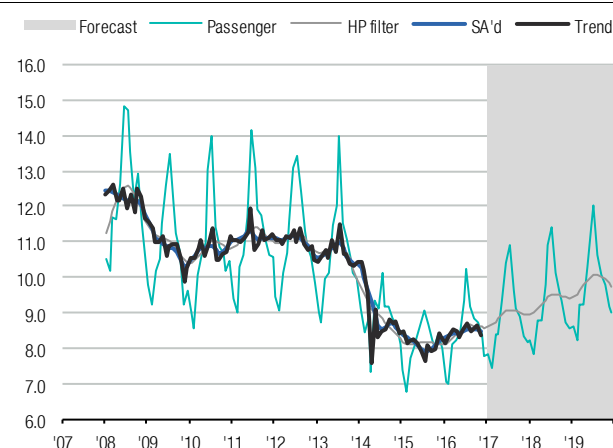
History (from January 2007 through November 2016), forecast for 2017-19



Source: State Statistics Service of Ukraine, ICU.

Chart 23. Passenger transportation turnover (m * km)

History (from January 2007 through November 2016), forecast for 2017-19



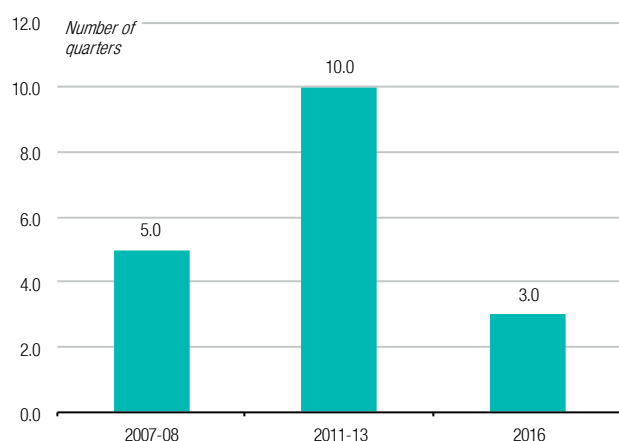
Source: State Statistics Service of Ukraine, ICU.

Sector balances: Decoding recent evolution

Structural balances of Ukraine's economy over the course of 2016 (depicted in Chart 26–Chart 28 on p.224) gives some food for thought. From this batch of macro data, we observe the longest streak of domestic private-sector deficit spending during three quarters last year (all except 2Q) since the eve of the recent economic crisis of 2014–15. Thus, prior to 2014, over 2011–13, Ukraine's private sector was in deficit spending during 10 of 12 consecutive quarters from 1Q11 through 4Q13, except in 2Q11 and 2Q13. (see Chart 27 on p.224). Similarly, prior to the 2008 financial crisis, the same pattern of private-sector behaviour was observed during five out of seven consecutive quarters from 1Q07 through 3Q08, except for 2Q and 3Q of 2007.

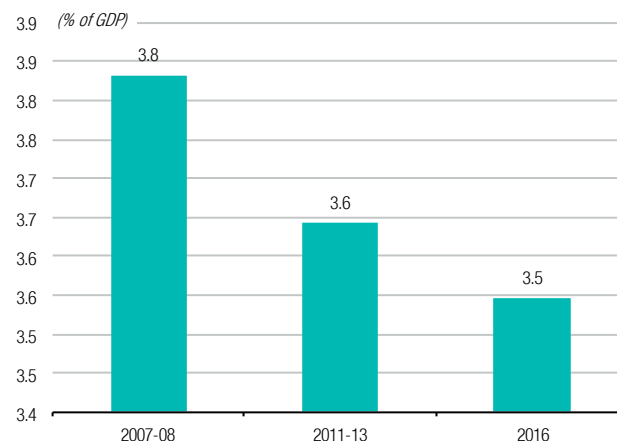
Our conclusion: the recent period of extended deficit spending by the private sector is a concern, given the past history of crises that followed. Indeed, if judged by duration (measured by number of quarters), the last episode of deficit spending by the domestic private sector was shorter than the previous two: three quarters in 2016 versus 10 quarters in 2011–13 and five quarters in 2007–08, (see Chart 24 on p.23). However, if judged by a 12-month cumulative size of the private-sector deficit (measured in relation to nominal GDP), then the recent deficit episode of 3.5% of GDP appears quite similar to past ones, which were at their peak after they hit 3.6% and 4.0%, respectively (see Chart 25 on p.23). While the past is not necessarily a guide for the future, it is a viable proposition that in 2017, the same pattern in sectoral balances as seen in 2016 may continue. The key question is whether the existing lenders are eager to sustain deficit spending by the domestic private sector. Given the fact that the external sector has been in surplus versus Ukraine's economy, in fact financing the trade deficit, then the abovementioned lenders are foreign-currency lenders, of which the most notable ones are official lenders like the IMF, World Bank, European Investment Bank, and EC. Then, another conclusion is that, as long as these lenders are willing to extend credit to Ukraine, then the recent pattern of sectoral balance may continue without an abrupt reversal of sectoral balances (especially in the private sector). However, the IMF as a key lender usually requires FX flexibility as an element of the macro set-up of the economy. This notion, and the recently growing trade deficit, indicate that the future path of the UAH exchange rate will be to weaken, albeit in a managed fashion (our best-case scenario). Otherwise, if the IMF program is rejected by the local authorities (our worst-case scenario), the FX adjustment could be more severe.

Chart 24. Three recent episodes of deficit spending by Ukraine domestic private sector by duration* (number of quarters)

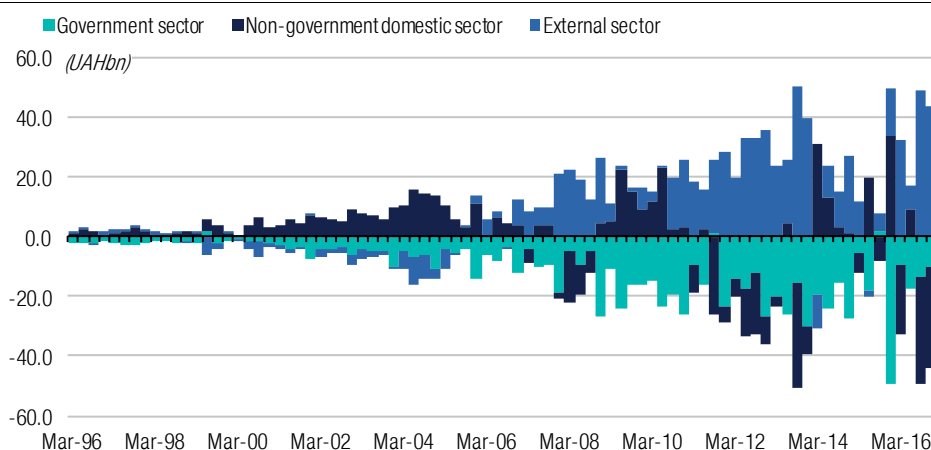


* based on the data series depicted in Chart 27, p.22.
Source: State Statistics Service of Ukraine, ICU.

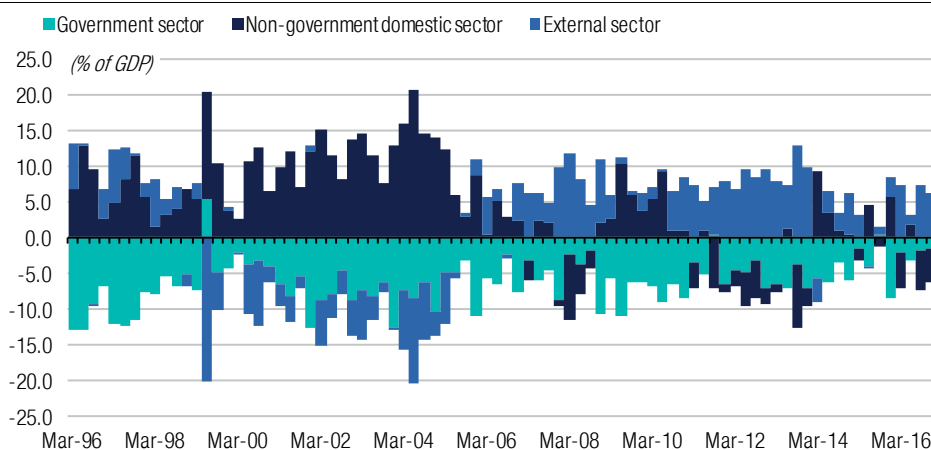
Chart 25. Three recent episodes of deficit spending by Ukraine domestic private sector by deficit size* (% of GDP)



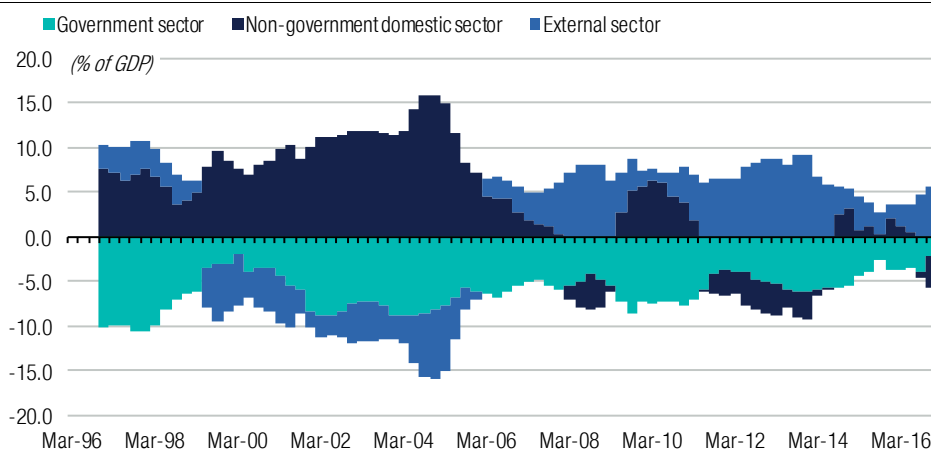
* 12-month rolling data, based on the data series depicted in Chart 28, p.22.
Source: State Statistics Service of Ukraine, ICU.

Chart 26. Ukraine's sectoral balances: quarterly volumes (UAHbn)*History from 1Q of 1996 through 4Q of 2016, at current prices*

Source: State Statistics Service of Ukraine, ICU.

Chart 27. Ukraine's sectoral balances: quarterly volumes (% of GDP)*History from 1Q of 1996 through 4Q of 2016, as percentage of quarterly GDP*

Source: State Statistics Service of Ukraine, ICU.

Chart 28. Ukraine's sectoral balances: last four-quarter rolling volumes (% of GDP)*History from 1Q of 1996 through 4Q of 2016, as percentage of quarterly GDP*

Source: State Statistics Service of Ukraine, ICU.

Structural shifts: A government-devised, income-rebalancing growth push

Over the past three years (2014–16), there has been a profound structural shift in the economy, which came about as the by-product of a series of crises. It is the way income is distributed in the economy, which has markedly shifted away from wage-earners to business owners, ie., from wages (defined as aggregate compensation to employees relative to GDP size) to corporate incomes (defined as aggregate gross operating incomes of business units relative to GDP size). Thus, wages dropped to a historical low, and incomes rose to an all-time high (see Chart 31–Chart 32, pp.25). The 2008 financial crisis did not result in much change in income distribution—the share of GDP going into wages and corporate incomes has been relatively unchanged. What was strikingly different during the crisis is wages. The share of wages crashed by more than 14ppt, from 53% at the end of 2013 to 38% as of last reported period, which was 3Q16. Over 1996–2013, wages share ranged in between 45–53%.

This decline in Ukraine was largest among the other economies in the wider region and even among those economies like Ireland, which, similar to Ukraine, has faced a severe financial crisis since 2008 (see Chart 77 on p.44). At the same time, the share of GDP that goes to incomes (and hence, eventually to business owners) grew more than 7ppt over the same period, to 45% from 38%. Ukraine falls within the top three economies, including Belarus and Ireland, where these shifts were largest (while in the case of Ireland and Belarus, they came on the back of the countries' own economic issues) (see Chart 79 on p.46. 1996–2013) and where business-profits share ranged between 37–44%.

It should be noted that the last component of income distribution on the aggregate level—net of taxes—was also up in Ukraine over 2014–15 and 9M16 by more than 4ppt (see Chart 81 on p.48). This was the government's reaction to the collapse of the economy under the assault of foreign military aggression in 2014, and the subsequent annexation of Crimea and parts of Donbas.

However, a key structural shift—a bigger share of GDP has been flowing into corporate profits and less into wages—took place on the back of the financial crisis of 2014 and early 2015, which saw a massive currency devaluation and subsequent spike in consumer inflation due to imports and regulated tariff increases. Fiscal consolidation followed, which aimed to contain expenditures to cut the budget deficit—a goal that succeeded. These two developments, however, undercut consumers, who are mostly wage-earners and not business owners. At the same time, inflation meant that businesses re-priced their goods and services to the market, while the government's fiscal restraint meant government-financed and private-sector wages lagged prices. Overall, in our view, that produced the aforementioned structural shift. However, if the economy—that is, the structure of GDP—is viewed from other angles, such as the production side or from an expenditures approach (Chart 35–Chart 36, p.25), there was no such profound change.

This decline for wage-earners' positions in the economy came to haunt incumbent politicians, as their approval ratings have been declining, and ratings of opposition politicians have been gaining. In our view, the government's decision last year to increase the minimum wage twice from UAH1,600 to UAH3,200, which is effective as of 2017, is an attempt to reverse the above-mentioned trend and influence private-sector wage growth. Great success, as in a return to the structure seen in 2013, is not assured here. If developments over 2017 do not affect the income composition of GDP as planned, then it

should be expected that some additional measures will be undertaken in the following year's state budget.

For the time being, we are counting on a gradual recovery of household consumption, which will be a significant contributor to Ukraine's economic recovery in 2017.

Industrial orders: Inching up steadily

Ukraine's industrial output has been in a gradual recovery since the heavy (active) phase of the Russian military aggression of 2014–15, it was affected on the downside due to creation of the territories still frozen in conflict in the east of the country, which is part of a supply chain of the broader industrial zone of the Donbas region. This refers both to past performance as measured by the industrial index (Chart 20, p.20), as well as by forward-looking data such as the volume of industrial orders (Chart 29–Chart 30, p.24).

The most recent official data on orders, which is available through last November, suggest that inflation-adjusted volume of orders (both foreign and domestic) were on the rise over most of 2016. Due to the past devaluation of the national currency, foreign orders were growing ahead of domestic. While we consider that the national currency's competitive gains (due to the devaluations of 2014 and early 2015) were eroded by inflation spikes (by a CPI spike in 2015 as well as by a PPI spike in late 2016), there is a possibility that foreign orders may not grow as fast in 2017 as they did in 2016.

It is prudent to assume that foreign orders growth will slow into the single-digits this year. However, domestic orders are likely to continue increasing by as much as 10% in 2017.

Chart 29. Monthly volume of industrial orders (UAHbn, seasonally-adjusted, at constant prices of December 2012)

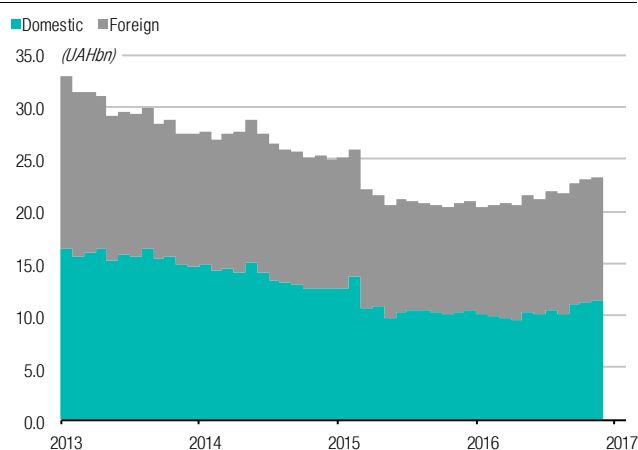


Chart 30. Change in the monthly volume of industrial orders of (% YoY, seasonally-adjusted, at constant prices of December 2012)

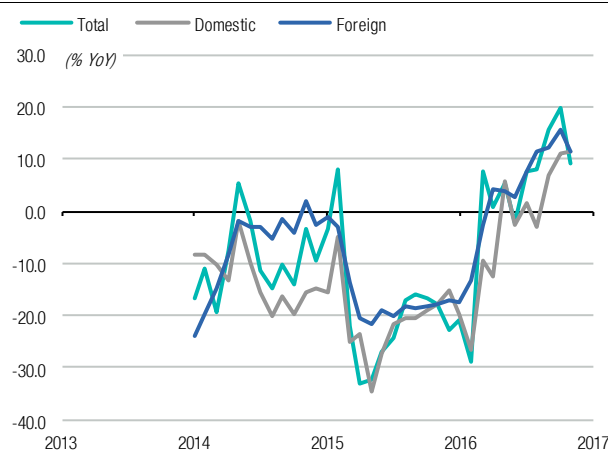
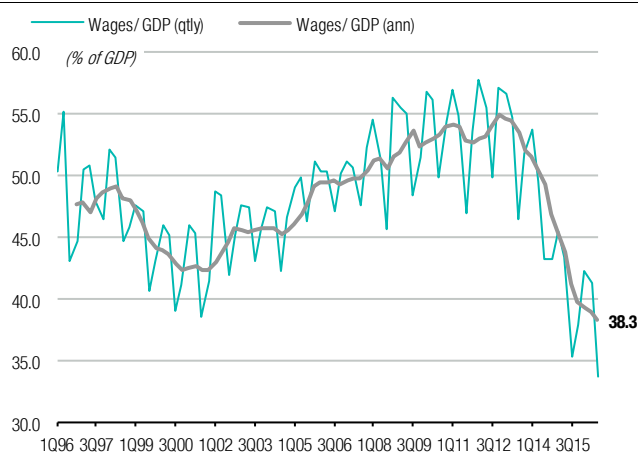
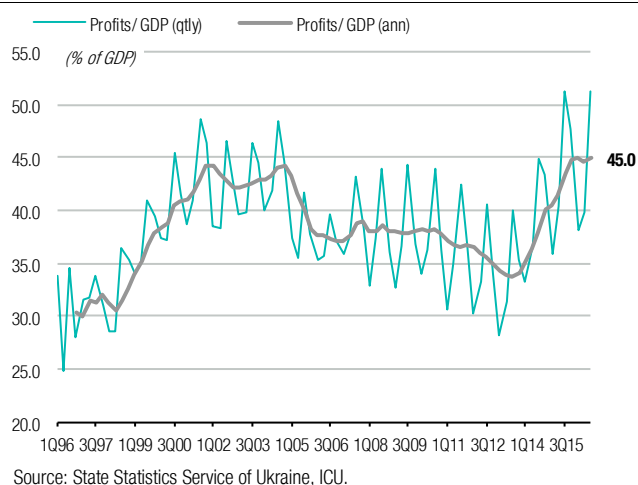


Chart 31. Share of wages component in GDP (% of total)

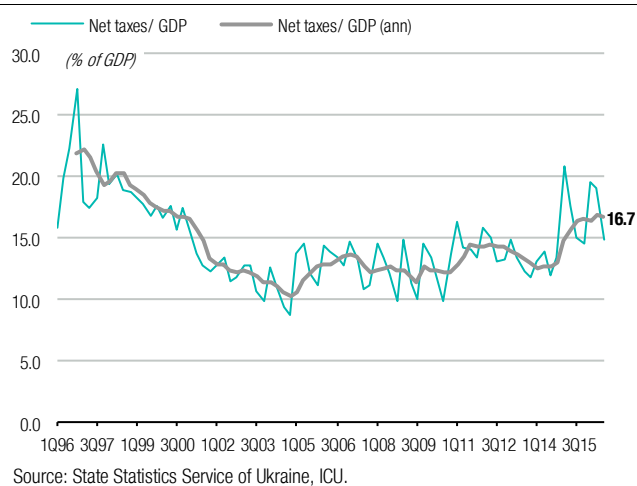
Quarterly history from 1Q of 1996 through 3Q of 2016

**Chart 32. Share of incomes component in GDP (% of total)**

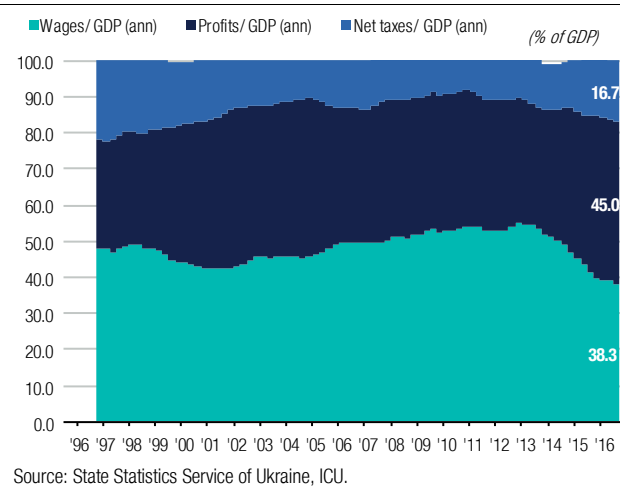
Quarterly history from 1Q of 1996 through 3Q of 2016

**Chart 33. Share of the net wages component in GDP (% of total)**

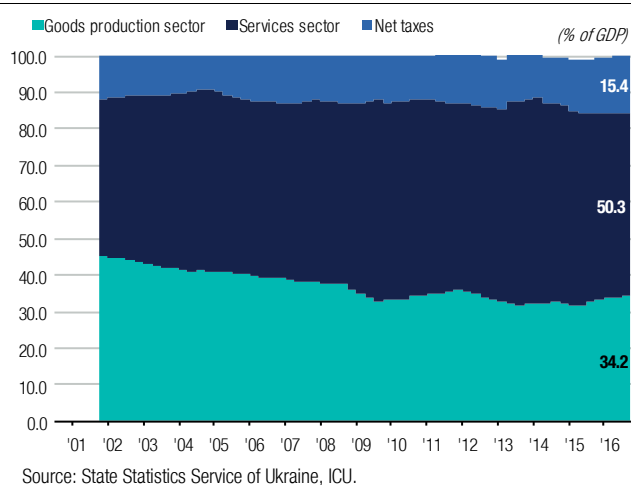
Quarterly history from 1Q of 1996 through 3Q of 2016

**Chart 34. Breakdown of GDP by incomes (% of total)**

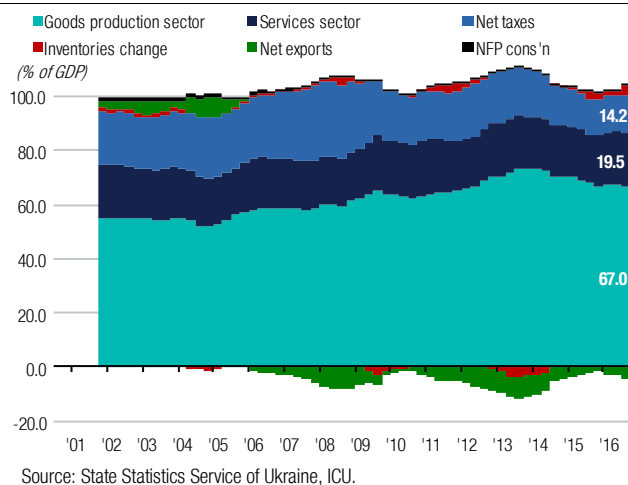
Quarterly history from 1Q of 1996 through 3Q of 2016

**Chart 35. Breakdown of GDP by production (% of total)**

Quarterly history from 1Q of 1996 through 3Q of 2016

**Chart 36. Breakdown of GDP by expenditures (% of total)**

Quarterly history from 1Q of 1996 through 3Q of 2016



Fixed investments: Upswing set to extend

The contribution of fixed investments to overall real growth rates in Ukraine in 2016 was quite significant.

In 2Q alone, it was up by 9.0% SA QoQ and 17.6% YoY. Similarly, in 3Q, it was up 4.7% SA QoQ and 24.8% YoY.

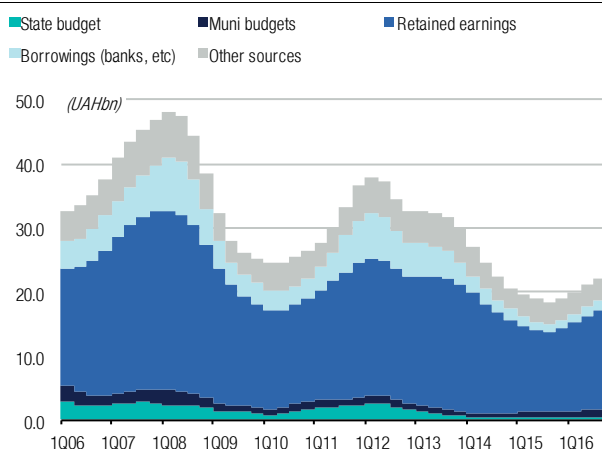
Fixed investments, meanwhile, were counterweighted by the negative impact on growth by net exports, due to a faster rise of imports over exports. This suggests that to some extent, fixed investments were made with foreign capital goods.

However, as depicted below, the data indicate that fixed investments funded by local governments were the fastest-rising among other components. Albeit from a low base, it suggests that the central government carried out infrastructure works in the oblasts using the regional governments' surpluses. The latter appeared thanks to fiscal reform that allowed some tax revenues to stay at the regional level, hence, on the books of the regional authorities. This will continue, as the central government will further encourage local authorities to use the surplus funds for infrastructure purposes (roads and other civil construction works), which fuels additional employment of relatively low-skilled labour and eventually supports local communities and household demand.

Also, there is the promise of a relative revival of bank lending in the economy, which will support fixed investments, too, as top banks have cleared recapitalisation hurdles (the largest private bank was successfully nationalised in December, in a way that did not disrupt the banking system or financial markets). Bank loans as a funding source for fixed investments declined over the past three years, to as low as 7% in late 2016 from 19% of total spending back in 2012.

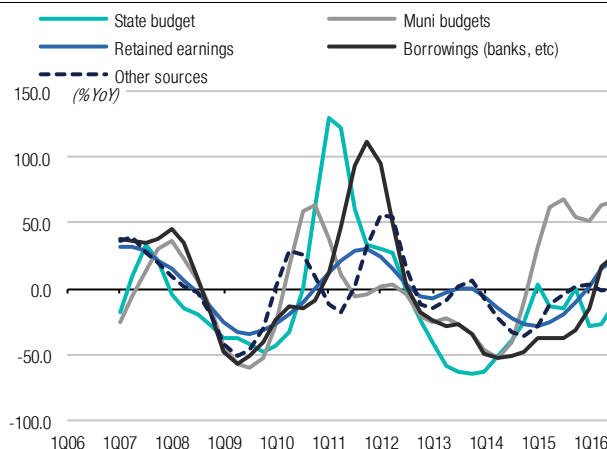
In our view, fixed investments are able to support real growth of the economy by adding about 3-5% every quarter in seasonally-adjusted and over-previous-quarter terms. Still, overall growth of the entire economy will be dragged down by the trade deficit, and its negative impact on growth.

Chart 37. Fixed investments by source of funding (UAHbn, seasonally-adjusted, at constant prices of December 2005)



Source: State Statistics Service of Ukraine, ICU.

Chart 38. Change in the fixed investments by source of funding (UAHbn, seasonally-adjusted, at constant prices of December 2005)



Source: State Statistics Service of Ukraine, ICU.

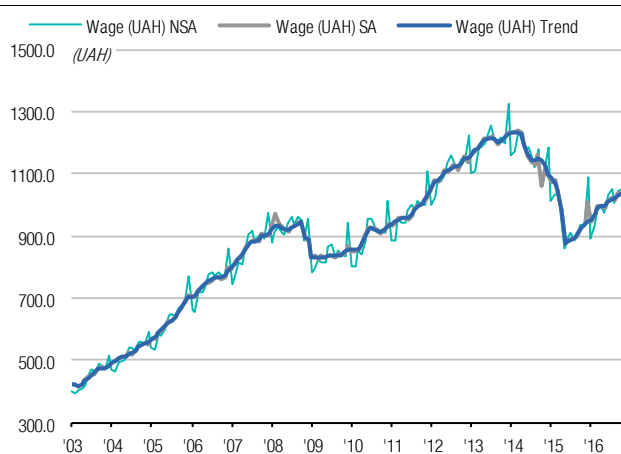
Inflation: Consumer vs. producer prices

Inflation conditions were variable in the past year. On the consumer-prices side, core inflation eased substantially, to 5.8% YoY in December last year, down from 34.7% YoY in 2015. This comes on the back of quite weak domestic household demand, which, albeit in recovery, still remains substantially short of pre-2014 levels. Thus, judging by retail sales adjusted for the consumer price index, the current level is well below December 2013, (see Chart 19 on p.21). If judged by the price-adjusted, average wage size, then the current level is about 16% short of where it was in December 2013, (see Chart 39 on p.33). Despite the return of wage growth in inflation-adjusted terms, which reached 15% in mid-2016 (and then subsided to 12% in December (see Chart 40 on p.31), after a nearly two-year period when real wage growth was negative, its impact on consumer inflation proved to be only modest. Aside from core CPI landing in single-digit territory, headline consumer inflation, too, declined substantially over 2016, to 12.4% by year end from 43.3% YoY in previous December. This was due, first of all, as mentioned above, to weak household demand. However, state-directed increases of regulated tariffs on home utilities (natural gas, heating, electricity) over 2016 prevented headline CPI from even faster disinflation than what occurred, allowing the index to end the past year above the 12% threshold.

If there were no state-directed increases in the utilities tariff, then headline inflation—an indicator that NBU has been officially targeting since early 2016—would have ended the year in the single-digits, as core CPI did. However, a reverse development took place in producer prices (see Chart 42 and Chart 44 on p.32), which ended last year higher than at the end of 2015. It was at 25.5% YoY in December 2015, then crawled downward over the course of 1Q16 to hit a bottom of 10.2% YoY in April, before heading ever upward for the remainder of the year to 35.8% YoY last December. The major contributor to this development was the mining sector, where coal and iron ore producers raised prices to the tune of 19% MoM in December alone. Over 2016, average monthly price increases by iron ore miners was 6.3%; oil and natural gas producers by 4.8%; and coal miners 2.9%. In our view, price increases in the global commodities markets (coal, iron ore, oil) fuelled domestic PPI.

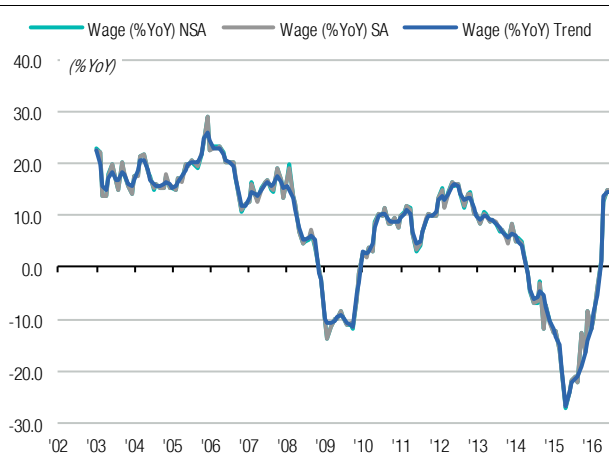
In 2017, this upward trend should subside; hence, we expect PPI in the area of 10-15%. Headline CPI is expected around 10% by year-end 2017, despite the doubling of the minimum wage.

Chart 39. Average wage size in the economy (UAH*)



Notes: * adjusted for consumer inflation index started as 100 points as of December 2002; NSA – non seasonally adjusted; SA – seasonally adjusted.
Source: State Statistics Service of Ukraine, ICU.

Chart 40. Change of average wage size (%YoY)



Notes: * adjusted for consumer inflation index started as 100 points as of December 2002; NSA – non seasonally adjusted; SA – seasonally adjusted.
Source: State Statistics Service of Ukraine, ICU.

Chart 41. Change of headline CPI (%YoY)

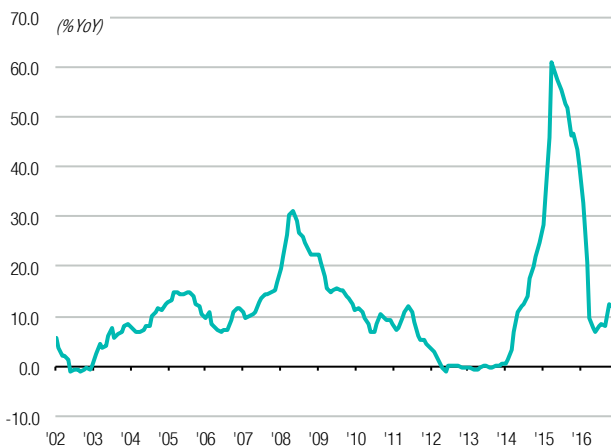


Chart 42. Change of PPI (%YoY)

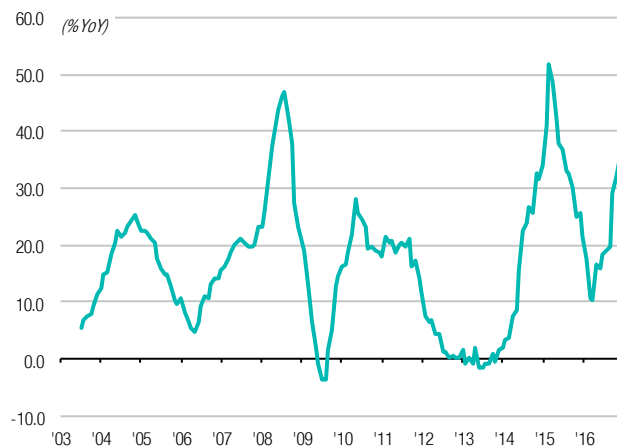


Chart 43. Change of key components of headline CPI (%YoY)

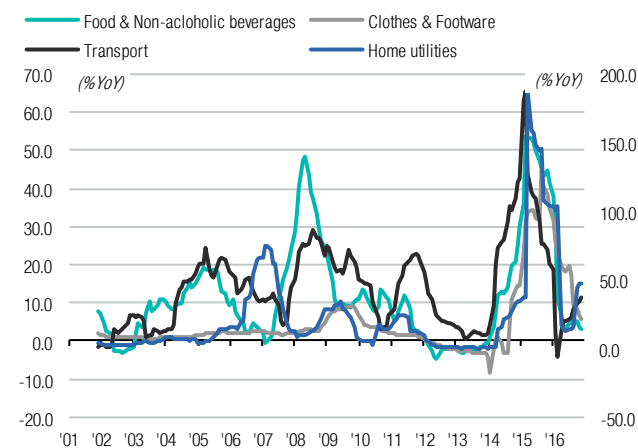
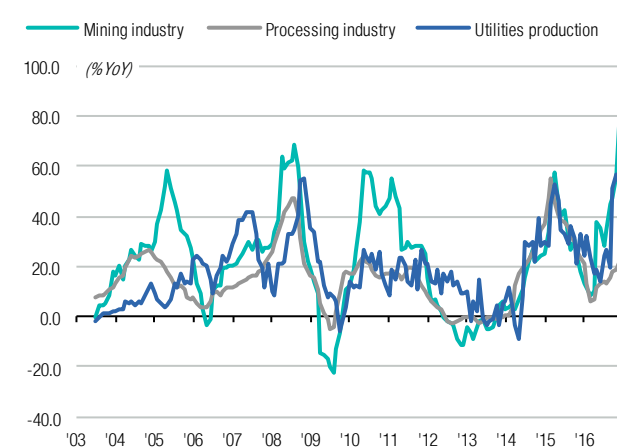
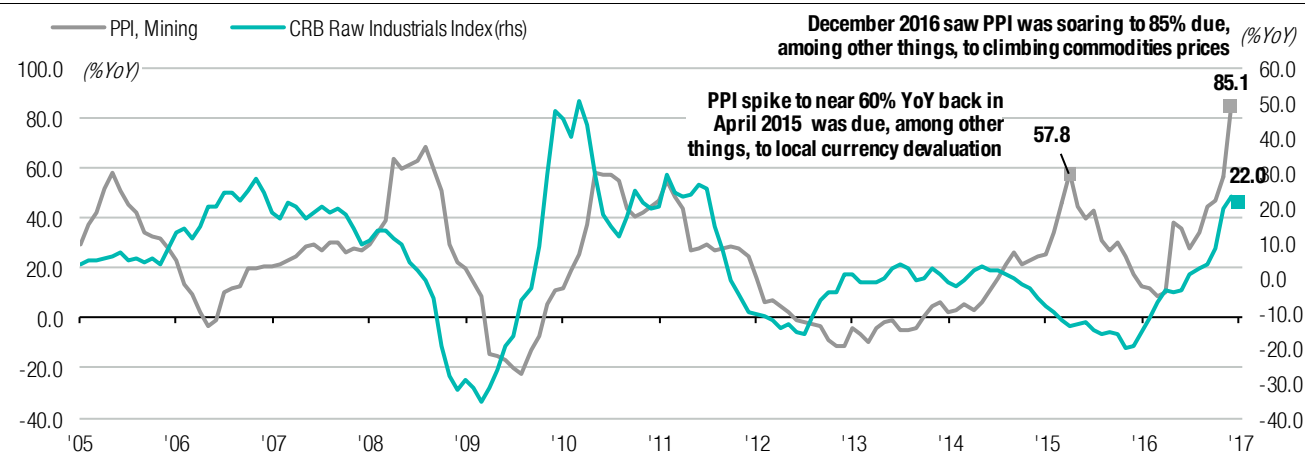


Chart 44. Change of key components of PPI (%YoY)

Chart 45. A year-on-year change of Ukraine's mining sector producers price index, a PPI sub-component, plotted against growth in the CRB Raw Industrials index¹ (%YoY)

Money: Domestic and foreign flows

The government supported domestic money flow in 2016 by running a sizable budget deficit, as it has been in the past couple of years (in fact, the government's fiscal stance was softened last year). Since 2H16, aggregate bank lending turned positive, as credit creation by banks prevailed over credit redemptions by non-bank businesses.

In 2016, the government's credit flow was restrained, as it was in the past (2014–15) by a deficit limit agreed to with the IMF (3.7% of GDP). Bank credit flow has been restrained, too, albeit for a different reason—because of recapitalisation requirements from the central bank. Bank credit flow (net positive) reappeared in 3Q16, for the first time since 1Q14, and remained steady for the next quarter. All this helped sustain the economic recovery over 2016.

In 2017, we expect greater credit flow from the banking sector, as top banks have been recapitalised (the two-year process culminated last December by nationalisation of largest private bank, PrivatBank). It is expected that credit flow by government deficit spending will taper, as the government targets a small primary surplus in the coming years in order to further reduce the public debt level, in accordance with the IMF programme's aims to reduce Ukraine's sovereign debt level toward 70% by 2020. The fiscal balance is seen to be gradually reduced from the 3.7% targeted for 2016 toward 3.0% in 2017, and further down to 2.0% over the next couple of years. These levels of overall budget deficit imply continued surpluses in the primary balance.

The external balance data indicate a recovery is taking place from both domestic demand (reflected in imports growth) as well as from external demand (exports are heading up too, albeit with a lag from imports). This resulted in an increase in the current account deficit from US\$0.2bn in 2015 toward US\$3.0bn in 2016. Net FDI flow over 2015-16 amounted to US\$3.0bn and US\$4.5bn, respectively. This supported the local currency, as the sum of the current account balance and net FDI was positive, at US\$2.9bn and US\$1.4bn (see Chart 49 on p.34).

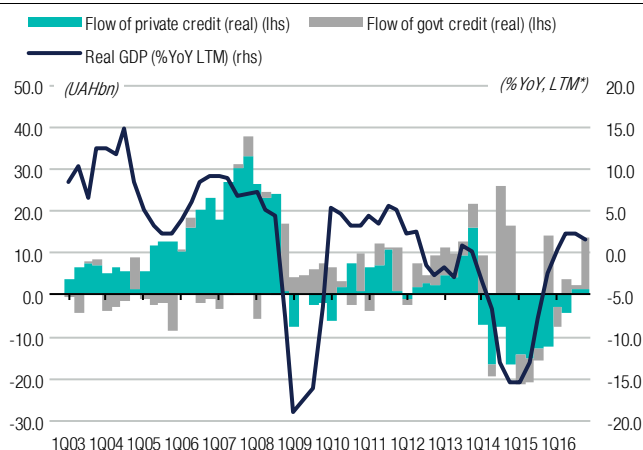
If this relationship between the current account balance and net FDI inflow is positive, then a smooth functioning of the domestic FX market is expected, where a managed float of the Ukrainian hryvnia is allowed, while the main operating target for the central bank has become the two-week deposit rate (ie, applied by withdrawing excess banks' reserves via 2-week certificates of deposit).

The central bank reduced the key operating rate over most of 2016, thanks to weak domestic demand and fast disinflation. In 2017, the NBU's decision on the key operating rate will be decided by two factors—inflation and risks associated with FX rate decline. In 1Q17, both factors are expected to play out in such a way as to prevent the NBU from making a cut.

Thus, the path of headline consumer inflation trended up in 4Q16, and is expected to stay above 12%, eventually subsiding, by our estimates toward the 10-11% range in 2Q17. Also, FX risks are to stay active in 2017, in a bumpy start to the year in the FX proved. However, there is another area of concern (at least for us) regarding the future path of UAH's FX rate, and it is derived from the UAH's real trade-weighted index analysis (see "View on UAH: Again, dollar strength and relative inflation spell a weaker currency" on pp.35). Our data indicates that the UAH's misalignment grew into positive territory (meaning a dear currency) due to headline CPI that is relatively high versus inflation rates in trading-partner countries, but a more profound misalignment developed on the back of last year's spike of PPI, due to global commodities markets, where prices for coal and iron ore were increasing.

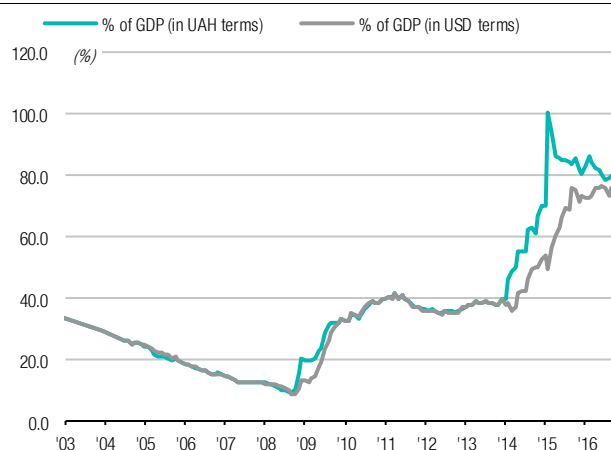
Hence, we conclude that the NBU will proceed with cuts to its policy rate in 2017, starting in 2Q17, and it will bring its key policy rate down to 10% in the latter part of 2017 via several cuts spread over 2Q17–4Q17, where it will remain throughout 2018–19.

Chart 46. Quarterly volumes of domestic credit flows, i.e. government deficit spending* and bank credit creation (UAHbn, price adjusted)**



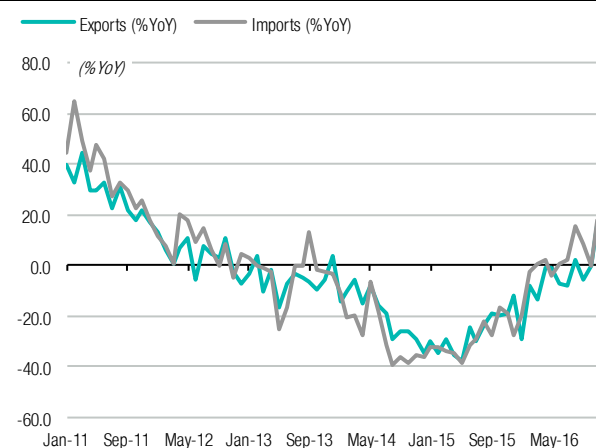
Notes: * positive bars mean state budget deficit, negative ones mean state budget surplus; ** adjusted for CPI, at constant prices of December 2002; record government credit flow in 3Q14 was designed to assist Ukraine's natural gas state-run company Naftogaz to repay its Eurobond in September 2014, this local currency credit flow was counterweighted by reduction of official FX reserves, the move that caused heightened devaluation expectations and eventually ended up with a wave of currency devaluation spread from 3Q14 into 1Q15.
Source: National Bank of Ukraine, ICU.

Chart 47. Ukraine's public debt size* (% of GDP)



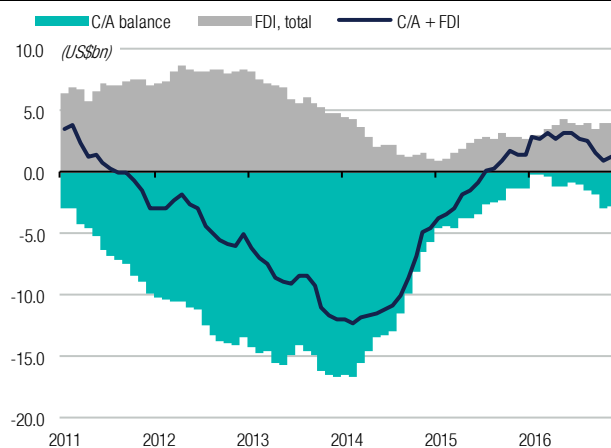
Note: * in local currency terms and in US dollar terms.
Source: National Bank of Ukraine, ICU.

Chart 48. Change of monthly volume of exports and imports of goods and services (%YoY)



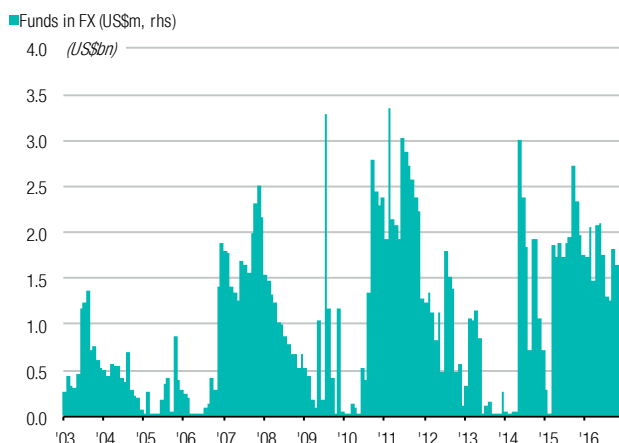
Source: National Bank of Ukraine, ICU.

Chart 49. Current account balance and FDI (US\$bn, last 12-month rolling volumes)



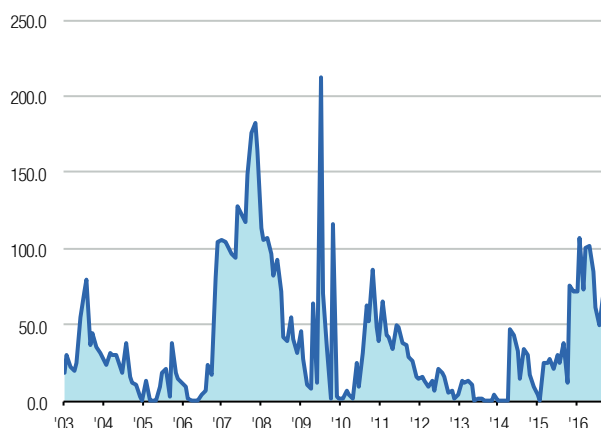
Source: National Bank of Ukraine, ICU.

Chart 50. Government's balance of FX funds (US\$m)
US\$1.5bn as of November 2017



Source: National Bank of Ukraine, ICU.

Chart 51. Coverage ratio of FX government debt due next 12 months by government's FX funds again (%)



Source: National Bank of Ukraine, ICU.

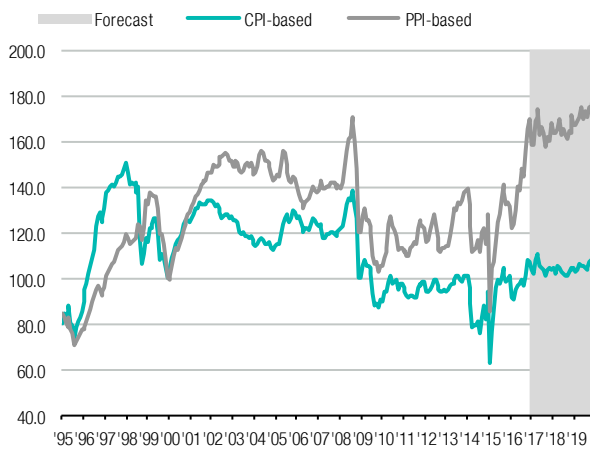
View on UAH: Again, dollar strength and relative inflation spell a weaker currency

Our in-house analysis of the currency valuation is based on trade-weighted data, comprised of past and expected FX and inflation rates of Ukraine's key trading partners, and Ukraine's own set of data, yielding us the following:

- High domestic inflation hinders hryvnia's future valuation.** This equally concerns Ukraine's domestic headline consumer inflation as well as producer price inflation rates. The former (headline CPI), albeit slowing quite remarkably from the high double digits seen in 2015, is still above 12% YoY. We projected that it will gradually subside toward 10% by year-end 2017. With regard to PPI, last year was unfortunate for Ukraine's economy, as foreign prices for commodities like coal, oil, natural gas and iron ore were mirrored by Ukraine's producers in that they raised them in like terms. This sent producer prices through the roof (see Chart 44, p.32), resulting in a spike that bloated the UAH's PPI-based real trade-weighted index over 2H16 (see Chart 52, p.36). Both price metrics are well ahead of all trade partners' inflation situations. Even in Belarus, a neighbouring economy that normally struggles with trade deficits, inflation has been relatively muted recently. Possibly, a period of active adjustment of regulated tariffs and deregulation of prices generally was behind the above-mentioned. Going forward, our price projections envisage these inflation metrics calming down.
- Dear US dollar as minor factor.** Compared with inflation, a dear US dollar has much less impact on UAH's valuation. But, it matters in the sense that going forward, the past appreciation of the dollar will not be repeated, in our view. At some point, the Trump administration may come to realise that its pro-jobs, exports business agenda requires a bit weaker dollar.
- Ukraine's authorities will continue to heavily manage FX market.** There is strong political sentiment against future FX rate adjustments. Hence, we rule out any meaningful relaxation of capital controls; realistically, we see only a very gradual one.
- Our UAH's FX rate projections:** The UAH's adjustment according to TWI-implied range will be quite gradual. See Chart 55, 32, and "Forecast for 2017-19" on pp.338.

Chart 52. UAH's CPI- and PPI-based real trade-weighted indices, rebased at 100 points as of December 1999

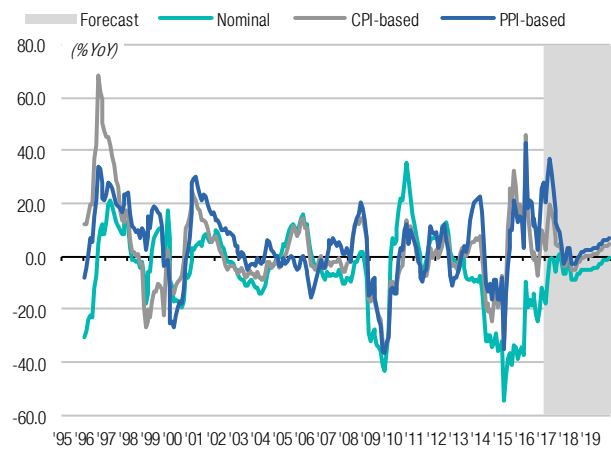
Monthly history from Jan-95 through Dec-16. Forecast for 2017-19



Source: ICU.

Chart 53. Percentage change over previous year of the UAH's nominal and real* trade-weighted indices (% YoY)

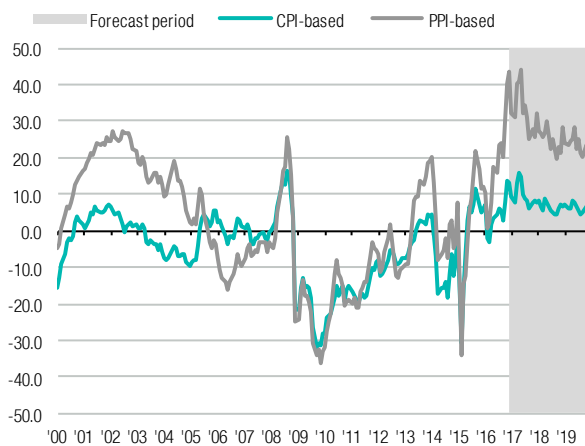
Monthly history from Jan-95 through Dec-16. Forecast for 2017-19



Note: * CPI- and PPI-based indices. Source: ICU.

Chart 54. Misalignment of Ukrainian hryvnia (UAH) as measured by its CPI- and PPI-based real trade-weighted indices

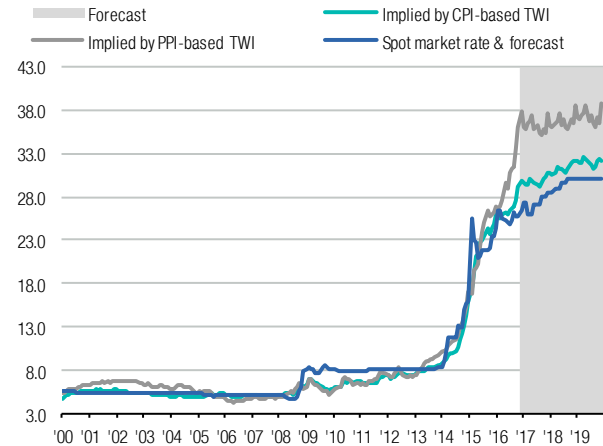
Monthly history from Jan-00 through Dec-16. Forecast for 2017-19



Source: ICU.

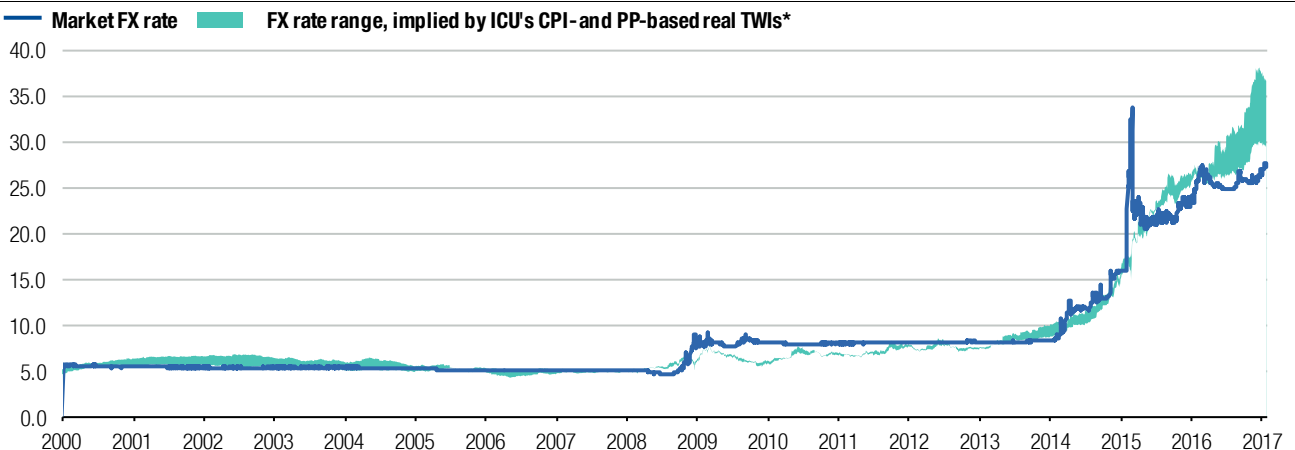
Chart 55. Current account balance and FDI (US\$bn, last 12-month rolling volumes)

Monthly history from Jan-00 through Dec-16. Forecast for 2017-19



Source: ICU.

Chart 56. Daily data on UAH's market rate and ICU's real TWI-implied fair-value range (UAH per USD)



Source: ICU.

Forecast for 2017-19

The following two pages of statistics are our yearly and quarterly key macroeconomic indicators with forecasts through 2019.

Yearly forecast 2017-19, base-case scenario

Table 3. Forecast of key macroeconomic indicators for 2016-18 (annual)

	Historical data for 2007-16										Forecast by ICU		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016E	2017F	2018F	2019F
Activity													
Real GDP (%YoY)	7.9	2.3	-14.8	4.1	5.2	0.2	-0.1	-6.4	-10.3	1.4	2.2	2.9	2.1
Nominal GDP (UAHbn)	721	948	913	1,083	1,302	1,409	1,465	1,567	1,957	2,377	2,827	3,250	3,682
Nominal GDP (US\$bn)	143	184	114	136	163	174	180	131	89	93	98	108	123
GDP per capita (US\$, ann)	3,091	3,986	2,474	2,978	3,572	3,823	3,962	3,057	2,077	2,184	2,308	2,552	2,893
Unemployment rate (%)	6.4	6.4	8.8	8.1	7.9	7.5	7.2	9.3	9.1	9.3	8.9	8.6	8.3
Prices													
CPI headline (%YoY, eop)	16.6	22.3	12.3	9.1	4.6	-0.2	0.5	24.9	43.3	12.4	8.2	9.4	9.4
CPI headline (%YoY, average)	12.8	25.3	16.0	9.4	8.0	0.6	-0.3	12.1	48.5	14.9	10.3	9.4	9.4
PPI (%YoY, eop)	23.2	21.1	15.3	18.8	17.4	0.4	1.7	31.8	24.0	32.3	10.1	9.0	9.0
PPI (%YoY, average)	20.5	33.6	7.4	21.4	19.9	6.0	-0.1	17.0	36.5	18.0	20.8	10.6	9.0
Fiscal balance													
Consolidated budget bal. (UAHbn)	-6.1	-11.3	-34.4	-63.3	-18.3	-46.9	-63.0	-67.1	-27.8	-23.4	-101.2	-81.0	-97.1
Consolidated budget bal. (% of GDP)	-0.8	-1.2	-3.8	-5.9	-1.4	-3.3	-4.3	-4.3	-1.4	-1.0	-3.6	-2.5	-2.6
Budget balance (UAHbn)	-9.8	-12.5	-35.5	-64.3	-23.6	-53.4	-64.7	-78.1	-45.2	-60.8	-102.0	-86.1	-101.6
Budget balance (% of GDP)	-1.4	-1.3	-3.9	-5.9	-1.8	-3.8	-4.4	-5.0	-2.3	-2.6	-3.6	-2.7	-2.8
External balance													
Exports (US\$bn)	61.4	82.5	52.1	65.6	83.7	86.5	81.7	65.4	47.6	44.9	50.2	50.8	56.5
Imports (US\$bn)	69.5	96.8	54.0	69.6	93.8	100.9	97.4	70.0	49.0	50.3	54.6	57.2	62.8
Trade balance (US\$bn)	-8.1	-14.4	-2.0	-4.0	-10.1	-14.3	-15.6	-4.6	-1.5	-5.4	-4.3	-6.4	-6.3
Trade balance (% of GDP)	-5.7	-7.8	-1.7	-2.9	-6.2	-8.2	-8.7	-3.5	-1.6	-5.8	-4.4	-5.9	-5.1
Current account balance (US\$bn)	-5.3	-12.8	-1.7	-3.0	-10.2	-14.3	-16.5	-4.6	-0.2	-3.5	-2.7	-4.6	-4.4
Current account balance (% of GDP)	-3.7	-6.9	-1.5	-2.2	-6.3	-8.2	-9.2	-3.5	-0.2	-3.8	-2.7	-4.2	-3.6
Net FDI (US\$bn)	9.2	9.9	4.7	5.8	7.0	7.2	4.1	0.3	2.9	3.7	4.3	4.3	4.3
Net FDI (% of GDP)	6.4	5.4	4.1	4.2	4.3	4.1	2.3	0.2	3.3	4.0	4.3	3.9	3.5
C/A bal. + net FDI (% of GDP)	2.8	-1.6	2.6	2.0	-2.0	-4.1	-6.9	-3.3	3.1	0.3	1.6	-0.3	-0.1
External debt (US\$bn, eop)	80.0	101.7	103.4	117.3	126.2	134.6	142.1	126.3	118.7	122.1	124.2	126.8	129.3
External debt (% of ann'd GDP, eop)	55.8	55.3	91.0	86.1	77.4	77.3	79.1	96.2	133.7	131.3	126.6	117.1	105.4
FX reserves (US\$bn, eop)	32.5	31.5	26.5	34.6	31.8	24.5	20.4	7.5	13.3	15.0	17.0	17.5	18.0
FX reserves (% of ann'd GDP, eop)	22.6	17.2	23.3	25.4	19.5	14.1	11.4	5.7	15.0	16.1	17.3	16.2	14.7
External debt / FX reserves (x, eop)	2.5	3.2	3.9	3.4	4.0	5.5	7.0	17.7	10.4	9.4	8.4	8.3	8.2
FX reserves imports cov (months)	5.6	3.9	5.9	6.0	4.1	2.9	2.5	1.3	3.3	3.6	3.7	3.7	3.4
Interest rates													
Central bank key rate (% eop)	8.00	12.00	10.25	7.75	7.75	7.50	6.50	14.00	22.00	14.00	10.00	10.00	10.00
3-month rate (% eop 4Q)	7.58	21.60	17.59	6.12	19.72	25.52	11.71	18.37	23.86	23.34	21.67	18.65	18.24
Exchange rates													
UAH trade-weighted index (nominal)	88.22	62.35	62.62	72.39	77.27	74.23	67.38	43.88	28.69	24.54	22.83	21.64	21.44
UAH trade-weighted index (real)	120.06	100.21	90.26	97.73	98.76	94.72	100.84	85.40	99.38	107.32	103.80	103.76	108.41
UAH/US\$ (eop)	5.05	7.80	8.00	7.94	8.00	8.05	8.24	15.82	24.03	25.91	29.50	30.00	30.00
UAH/US\$ (average)	5.03	5.25	8.03	7.94	7.99	8.08	8.16	12.01	21.96	25.54	28.75	30.00	30.00
UAH/€ (eop)	7.36	10.90	11.45	10.63	10.37	10.62	11.32	19.14	26.10	27.85	32.45	33.90	36.00
UAH/€ (average)	7.32	7.10	11.70	10.51	10.50	10.60	11.17	14.79	23.92	28.24	31.34	33.45	34.65
US\$/€ (eop)	1.46	1.40	1.43	1.34	1.30	1.32	1.37	1.21	1.09	1.07	1.10	1.13	1.20
US\$/€ (average)	1.46	1.35	1.46	1.32	1.32	1.31	1.37	1.23	1.09	1.11	1.09	1.12	1.16
Population													
Population (million, eop)	46.4	46.1	46.0	45.8	45.6	45.6	45.3	42.9	42.8	42.6	42.5	42.5	42.4
Population (%YoY)	-0.6	-0.5	-0.4	-0.4	-0.3	-0.2	-0.5	-5.3	-0.4	-0.4	-0.2	-0.1	0.0

Notes: eop – end of period; cov – coverage; con'd – consolidated; ann – annualised. Sources: State Statistics Service of Ukraine, NBU, ICU.

Quarterly forecast 2017-19, base-case scenario

Table 4. Forecast of key macroeconomic indicators for 2017-19 (quarterly)

	3Q16	4Q16E	Forecast by ICU											
			1Q17F	2Q17F	3Q17F	4Q17F	1Q18F	2Q18F	3Q18F	4Q18F	1Q19F	2Q19F	3Q19F	4Q19F
Activity														
Real GDP (%YoY)	1.8	2.4	3.8	2.2	1.3	1.4	2.8	3.0	3.0	3.0	2.2	2.2	2.1	1.8
Nominal GDP (UAHbn)	664.7	727.8	578.6	638.2	786.6	823.2	660.4	736.0	906.5	947.4	749.2	834.7	1,027.7	1,070.9
Nominal GDP (US\$bn)	26.2	28.1	20.7	22.4	27.1	27.9	22.0	24.5	30.2	31.6	25.0	27.8	34.3	35.7
GDP per capita (US\$, ann)	2,117	2,181	2,253	2,285	2,308	2,305	2,338	2,389	2,462	2,549	2,619	2,697	2,792	2,890
Unemployment rate (%)	9.2	9.3	9.2	9.1	9.0	8.9	8.9	8.8	8.7	8.6	8.5	8.4	8.4	8.3
Prices														
CPI headline (%YoY, eop)	7.9	12.4	12.3	10.5	10.8	8.2	8.2	10.0	9.7	9.4	9.4	9.4	9.4	9.4
CPI headline (%YoY, average)	8.0	12.3	12.0	10.3	10.7	8.3	8.2	10.0	9.8	9.5	9.4	9.4	9.4	9.4
PPI (%YoY, eop)	15.2	32.3	28.2	19.9	18.2	10.1	10.7	10.7	10.7	9.0	9.0	9.0	9.0	9.0
PPI (%YoY, average)	14.4	27.8	31.6	21.2	19.3	11.2	10.5	10.7	10.7	10.7	9.0	9.0	9.0	9.0
Fiscal balance														
Consolidated budget bal. (UAHbn)	-20.5	8.1	-14.2	-38.4	-6.8	-41.8	-10.9	-35.0	1.4	-36.4	-13.3	-40.0	-0.7	-43.1
Consolidated budget bal. (% of GDP)	-3.1	1.1	-2.4	-6.0	-0.9	-5.1	-1.6	-4.8	0.2	-3.8	-1.8	-4.8	-0.1	-4.0
Budget balance (UAHbn)	-28.1	2.6	-15.1	-36.6	-9.6	-40.7	-12.5	-34.0	-3.0	-36.6	-14.9	-38.7	-5.1	-42.8
Budget balance (% of GDP)	-4.2	0.4	-2.6	-5.7	-1.2	-4.9	-1.9	-4.6	-0.3	-3.9	-2.0	-4.6	-0.5	-4.0
External balance														
Exports (US\$bn)	11.8	12.1	11.2	12.3	13.4	13.3	12.2	12.3	12.4	13.9	12.9	13.1	14.9	15.7
Imports (US\$bn)	13.6	13.9	13.2	12.1	14.4	14.9	13.4	13.9	14.8	15.0	14.6	15.0	16.1	17.2
Trade balance (US\$bn)	-1.9	-1.8	-2.0	0.2	-1.0	-1.5	-1.3	-1.6	-2.4	-1.1	-1.7	-1.9	-1.3	-1.5
Trade balance (% of GDP)	-7.1	-6.4	-9.8	0.7	-3.5	-5.5	-5.7	-6.6	-8.0	-3.5	-6.7	-6.8	-3.7	-4.2
Current account balance (US\$bn)	-1.7	-1.2	-1.7	0.5	-0.5	-1.0	-0.9	-1.2	-2.0	-0.6	-1.2	-1.4	-0.8	-1.0
Current account balance (% of GDP)	-6.4	-4.2	-8.4	2.4	-1.9	-3.5	-4.0	-4.9	-6.5	-1.8	-4.9	-5.1	-2.2	-2.7
Net FDI (US\$bn)	1.0	0.6	1.2	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.1	1.1
Net FDI (% of GDP)	3.8	2.1	5.8	4.5	4.0	3.5	5.1	4.2	3.6	3.3	4.4	3.8	3.2	3.0
C/A bal. + net FDI (% of GDP)	-2.6	-2.0	-2.7	7.0	2.1	0.0	1.1	-0.6	-2.9	1.5	-0.6	-1.3	0.9	0.3
External debt (US\$bn, eop)	119.9	120.5	121.0	119.5	118.9	118.9	118.7	118.8	119.7	119.2	119.4	119.7	119.4	119.3
External debt (% of ann'd GDP, eop)	132.7	129.5	126.0	122.7	121.0	121.2	119.3	117.0	114.3	110.0	107.2	104.5	100.6	97.2
FX reserves (US\$bn, eop)	14.6	15.0	15.5	16.0	16.5	17.0	17.1	17.2	17.4	17.5	17.6	17.7	17.9	18.0
FX reserves (% of ann'd GDP, eop)	16.1	16.1	16.1	16.4	16.8	17.3	17.2	17.0	16.6	16.2	15.8	15.5	15.1	14.7
External debt / FX reserves (x, eop)	9.6	9.4	9.2	8.9	8.6	8.4	8.2	8.1	8.1	8.0	0.0	0.0	0.0	0.0
FX reserves imports cov (months)	3.5	3.6	3.6	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.6	3.6	3.5	3.4
Interest rates														
Central bank key rate (% eop)	15.00	14.00	14.00	14.00	12.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3-month rate (% eop 4Q)	18.65	18.24	18.00	18.00	18.00	15.00	12.00	12.00	12.00	12.00	13.00	14.00	15.00	16.00
Exchange rates														
UAH trade-weighted index (nominal)	22.97	24.54	24.77	23.87	23.10	22.83	22.53	22.24	21.91	21.64	21.60	21.62	21.58	21.44
UAH trade-weighted index (real)	96.51	107.32	107.59	104.99	101.32	103.80	102.11	102.44	100.94	103.76	103.23	104.98	104.87	108.41
UAH/US\$ (eop)	25.94	27.10	28.00	28.50	29.00	29.50	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
UAH/US\$ (average)	25.37	25.91	28.00	28.50	29.00	29.50	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
UAH/€ (eop)	29.14	29.13	30.24	30.78	31.90	32.45	33.00	33.30	33.60	33.90	33.90	34.20	34.50	36.00
UAH/€ (average)	28.46	28.48	30.17	30.78	31.61	32.45	33.00	33.15	33.45	33.75	33.90	34.05	34.35	35.25
US\$/€ (eop)	1.12	1.07	1.08	1.08	1.10	1.10	1.10	1.11	1.12	1.13	1.13	1.14	1.15	1.20
US\$/€ (average)	1.12	1.10	1.08	1.08	1.09	1.10	1.10	1.11	1.12	1.13	1.13	1.14	1.15	1.18
Population														
Population (million, eop)	42.65	42.61	42.61	42.56	42.54	42.50	42.55	42.50	42.49	42.45	42.53	42.48	42.47	42.43
Population (%YoY)	-0.4	-0.4	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0

Notes: eop – end of period; cov – coverage; con'd – consolidated; ann – annualised. Sources: State Statistics Service of Ukraine, NBU, ICU.

Appendices: Research details, thematic charts & tables

The following pages contain the data charts and tables as referenced in this report.

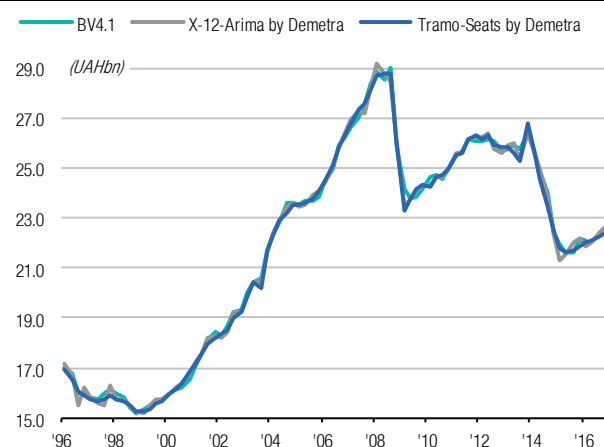
Quarterly GDP: Reported statistics and ICU's calculations

Chart 57. Ukraine's economy from the perspective of quarterly GDP volumes (left) and on-quarter growth rates (right)

1Q96-4Q16

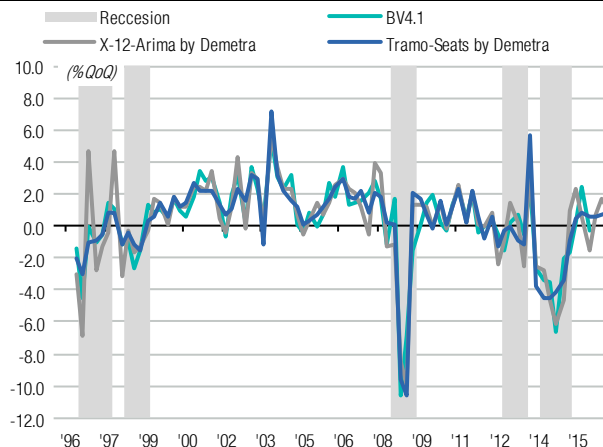
Data is adjusted for inflation and seasonal factors; seasonally adjusted by three methods BV4.1, X-12 Arima and Tramo-Seats

Quarterly GDP size in constant prices of Dec-95



Sources: State Statistics Service of Ukraine, ICU.

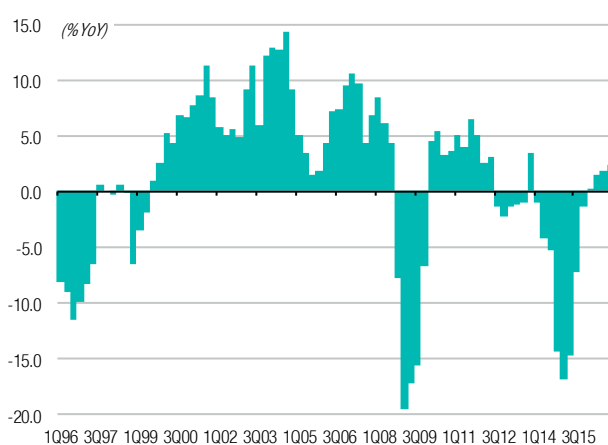
Quarterly GDP growth rates (% QoQ)



Sources: State Statistics Service of Ukraine, ICU.

Chart 58. Reported on-year quarterly GDP growth (% YoY)

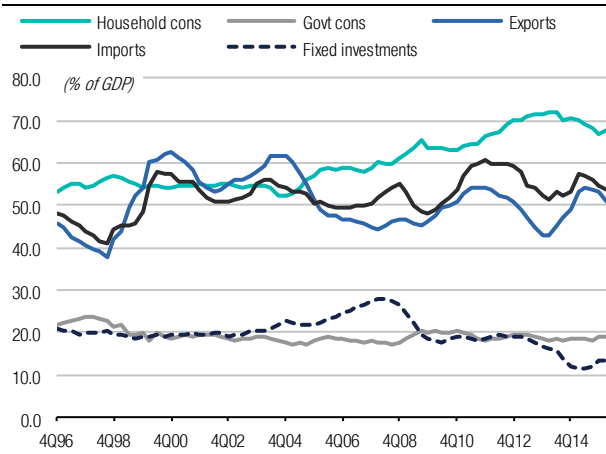
1Q96-4Q16



Source: State Statistics Service of Ukraine.

Chart 59. Demand-side components of GDP (% of total, LTM)

1Q96-3Q16



Sources: State Statistics Service of Ukraine, ICU.

Table 5. Ukraine quarterly GDP size: History from 4Q96 till 4Q15 (UAHm, if not otherwise indicated)

Reported statistics and ICU calculations of quarter-on-quarter growth in real and seasonally adjusted terms

Period	Reported statistics on quarterly GDP					ICU calculations						
	GDP at current prices (UAHm)	Real growth (% YoY, qtlly)	Real growth (% QoQ, SA)	Deflator (% YoY)	Real growth (% YoY, ann'd)	GDP at cons prices ¹ (UAHm, NSA)	GDP at cons prices ¹ (UAHm, SA)			Real GDP growth (%QoQ, SA)		
							BV4.1	X-12-Arima by Demetra	Tramo-Seats by Demetra	BV4.1	X-12-Arima by Demetra	Tramo-Seats by Demetra
4Q96	24,454	-10.0		40.1	-9.7	17,404	16,075	16,228	15,824	0.8	4.6	0.8
1Q97	18,728	-8.3		22.3	-9.8	14,114	15,777	15,780	15,779	-1.9	-2.8	-0.3
2Q97	20,485	-6.6		22.7	-9.1	14,117	15,758	15,586	15,750	-0.1	-1.2	-0.2
3Q97	26,076	0.5		15.3	-6.2	17,544	16,049	15,531	15,687	1.8	-0.4	-0.4
4Q97	28,076	0.0		14.8	-3.7	17,405	16,122	16,258	15,984	0.5	4.7	1.9
1Q98	20,871	-0.3		11.8	-1.6	14,068	16,011	15,744	15,762	-0.7	-3.2	-1.4
2Q98	23,367	0.5		13.5	0.2	14,188	15,795	15,701	15,724	-1.4	-0.3	-0.2
3Q98	28,908	-0.1		10.9	0.0	17,538	15,379	15,435	15,479	-2.6	-1.7	-1.6
4Q98	29,447	-6.6		12.3	-1.7	16,256	15,177	15,236	15,165	-1.3	-1.3	-2.0
...
4Q08	244,113	-7.8		23.3	+2.6	27,233	25,953	26,044	26,015	-10.6	-8.5	-9.7
1Q09	189,028	-19.6		22.8	-4.8	21,148	24,161	23,434	23,251	-6.9	-10.0	-10.6
2Q09	214,103	-17.3		9.7	-10.6	22,181	23,784	23,738	23,739	-1.6	+1.3	+2.1
3Q09	250,306	-15.7		7.4	-15.2	26,886	23,814	24,054	24,147	+0.1	+1.3	+1.7
4Q09	259,908	-6.7		14.1	-15.0	25,412	24,147	24,335	24,331	+1.4	+1.2	+0.8
1Q10	217,286	+4.5	+0.7	10.7	-9.2	21,959	24,625	24,329	24,281	+2.0	-0.0	-0.2
2Q10	256,754	+5.4	+1.4	15.1	-3.5	23,110	24,685	24,673	24,674	+0.2	+1.4	+1.6
3Q10	301,251	+3.3	+0.4	17.5	+1.5	27,539	24,600	24,630	24,686	-0.3	-0.2	+0.0
4Q10	307,278	+3.7	+0.7	15.6	+4.2	25,989	24,943	24,933	24,972	+1.4	+1.2	+1.2
1Q11	257,682	+5.1	+2.0	12.9	+4.4	23,066	25,524	25,576	25,547	+2.3	+2.6	+2.3
2Q11	311,022	+3.9	+0.3	16.6	+4.0	24,009	25,644	25,631	25,599	+0.5	+0.2	+0.2
3Q11	369,818	+6.5	+2.5	15.2	+4.8	29,347	26,175	26,194	26,159	+2.1	+2.2	+2.2
4Q11	363,557	+5.0	+0.3	12.6	+5.1	27,309	26,084	26,208	26,309	-0.3	+0.1	+0.6
1Q12	293,493	+2.5	-0.8	11.4	+4.5	23,584	26,090	26,202	26,118	+0.0	-0.0	-0.7
2Q12	349,212	+3.1	+0.5	9.0	+4.3	24,731	26,192	26,423	26,279	+0.4	+0.8	+0.6
3Q12	387,620	-1.3	-1.5	6.2	+2.3	28,963	26,053	25,793	25,940	-0.5	-2.4	-1.3
4Q12	378,564	-2.3	-0.8	6.6	+0.5	26,681	25,668	25,567	25,870	-1.5	-0.9	-0.3
1Q13	303,753	-1.3	+0.2	4.9	-0.5	23,277	25,737	25,930	25,846	+0.3	+1.4	-0.1
2Q13	354,814	-1.2	-0.7	3.8	-1.5	24,208	25,911	26,000	25,610	+0.7	+0.3	-0.9
3Q13	398,000	-1.1	+2.3	4.0	-1.5	28,595	25,759	25,357	25,307	-0.6	-2.5	-1.2
4Q13	408,631	+3.4	-1.5	4.3	-0.1	27,612	26,414	26,359	26,753	+2.5	+3.9	+5.7
1Q14	313,568	-1.0	-3.3	4.5	+0.0	22,994	25,719	25,690	25,748	-2.6	-2.5	-3.8
2Q14	375,903	-4.3	-4.2	11.1	-0.8	23,084	24,848	24,991	24,589	-3.4	-2.7	-4.5
3Q14	434,166	-5.3	-4.7	15.4	-1.9	27,031	23,986	23,848	23,485	-3.5	-4.6	-4.5
4Q14	443,091	-14.4	-4.1	27.2	-6.4	23,538	22,392	22,375	22,524	-6.6	-6.2	-4.1
1Q15	367,577	-17.0	-3.5	41.5	-10.4	19,049	21,951	21,324	21,770	-2.0	-4.7	-3.3
2Q15	449,575	-14.7	-1.4	40.1	-13.0	19,706	21,583	21,537	21,583	-1.7	+1.0	-0.9
3Q15	555,044	-7.2	+1.1	37.8	-13.4	25,077	21,636	22,027	21,681	+0.2	+2.3	+0.5
4Q15	584,781	-1.4	+1.4	32.7	-10.3	23,410	22,172	22,159	21,864	+2.5	+0.6	+0.8
1Q16	453,185	+0.1	-0.7	20.5	-6.0	19,490	22,120	21,829	21,985	-0.2	-1.5	+0.6
2Q16	531,838	+1.4	+0.6	15.2	-1.8	20,236	N/A	21,997	22,116	N/A	+0.8	+0.6
3Q16	664,717	+1.8	+1.0	15.5	+0.5	26,002	N/A	22,381	22,274	N/A	+1.7	+0.7
4Q16	727,757	+2.4	+0.7	21.5	+1.4	23,972	N/A	22,621	22,449	N/A	+1.1	+0.8

Notes: [1] at constant prices of December 1995; SA – seasonally adjusted data; NSA --- non-seasonally adjusted data; [E] estimated by ICU.

Sources: State Statistics Service of Ukraine, Investment Capital Ukraine LLC.

ICU consumer basket: Observation of Kyiv, New York and Moscow prices

Table 6. ICU consumer basket as of end of December 2016

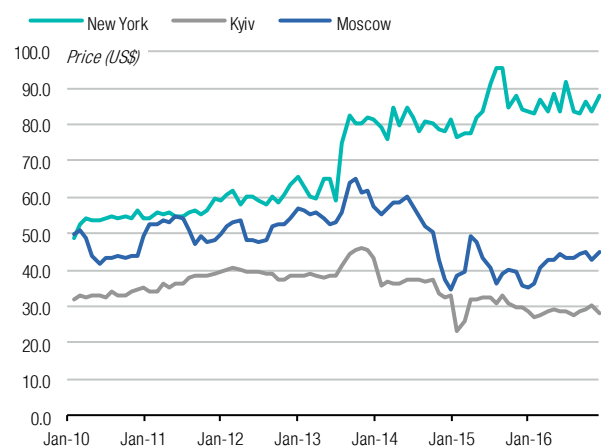
Prices of consumer goods in Kyiv, New-York, and Moscow

Item of the basket	Description	Kyiv, central district 28-Dec-16 Price (UAH)	New York metro- politan area 28-Dec -16 Price (US\$)	Moscow, central district 28-Dec -16 Price (RUB)
Consumer goods				
Coca-cola (0.5 litre, plastic bottle)	Non-alcohol beverages	8.55	1.75	53.80
Beer Corona Extra (0.33 litre, glass bottle)	Alcoholic beverages	24.22	1.83	143.00
Bunch of fresh bananas (1 kg)	From Ecuador	26.90	1.94	69.90
Pack of milk (1 litre)	Locally produced, soft package, i.e., not glass bottle	20.04	1.58	82.50
Chicken meat (1 kg pack)	Locally produced and branded package, boneless breast	59.95	10.98	202.00
Canned pineapple (0.85 kg, can)	Pineapple circles, Dole brand	72.13	3.28	218.74
Pasta (0.5 kg)	Soft package, produced in Italy	49.51	1.75	96.40
Sugar (1 kg)		22.03	3.07	49.90
Package of table salt (0.5 kg)		13.59	0.81	20.80
Chicken eggs (10 units pack)	White eggs, standard size	26.89	3.32	96.80
Chocolate (100 g)	Made by Craft Foods Corp, Milka brand	23.33	2.50	59.00
Toothpaste (100ml package)	Colgate	38.99	2.64	155.00
Shampoo (200ml package)	Head & Shoulders brand, for normal hair	50.27	3.18	198.00
Toilet paper (4 rolls package)	Kleenex Cottonelle brand, white paper, Regular toilet tissue	38.60	3.33	139.00
Magazine	Men's Health, local edition, A4 format (standard one, not a pocket book format)	44.71	4.15	106.00
Gasoline (1 litre)	Lukoil, regular	23.67	0.69	39.80
Batteries (AA x 4 pack)	A 4-pack of AA Duracell batteries, Alkaline	62.04	4.99	214.00
Coffee (250 g, vacuum pack)	Jacobs Monarch, brick-like vacuum pack	75.72	15.87	268.75
Services				
Underground commute ticket	Within the central part of the city	4.00	2.75	50.00
Cinema ticket	Thursday's night price for the seat with good location, Hollywood film	70.00	17.49	450.00
Total basket value (in local currency)		755.14	87.90	2,713.39
Exchange rate versus US dollar at spot market as of date of observation		27.100	1.000	60.484
Total basket value (in US\$)		27.86	87.90	44.86
Overvalued "+" / undervalued "-" (%)				
UAH vs. USD		-68.30		
UAH vs. RUB		-37.89		
Fair value in the long-run as of observation date				
UAH per USD		8.591		
UAH per RUB		0.278		

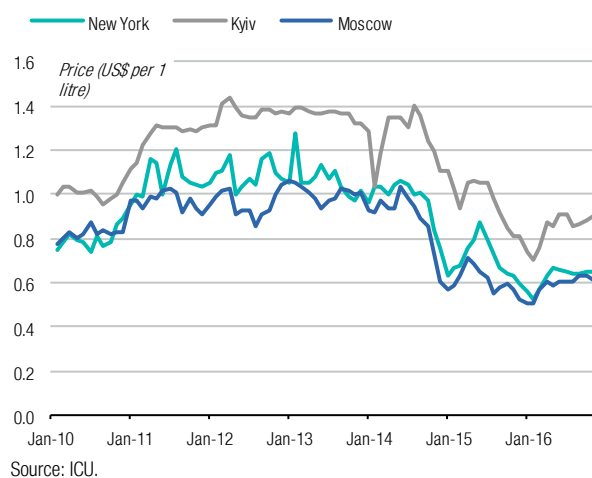
Source: ICU.

Chart 60. ICU consumer basket value (US\$)

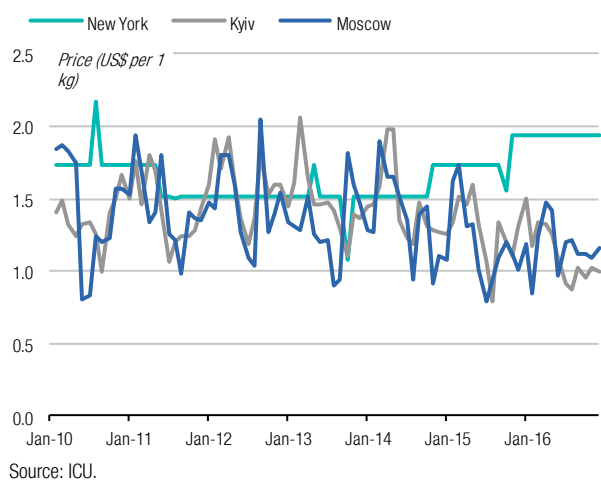
Price history February 2010 - December 2016

**Chart 61. Gasoline A95 equivalent 1 litre (US\$)**

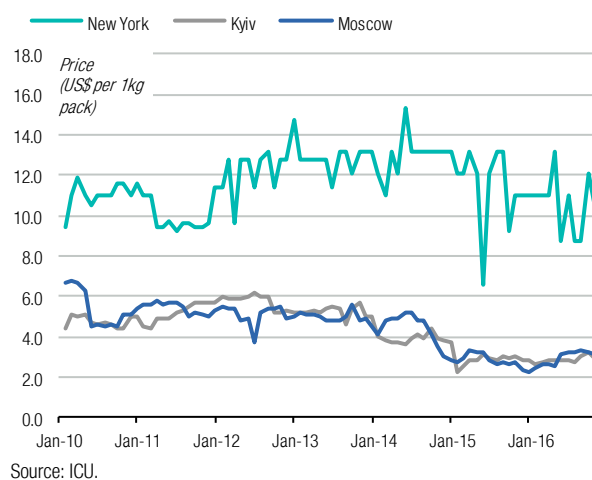
Price history February 2010 - December 2016

**Chart 62. Fresh banana 1 kg bunch (US\$)**

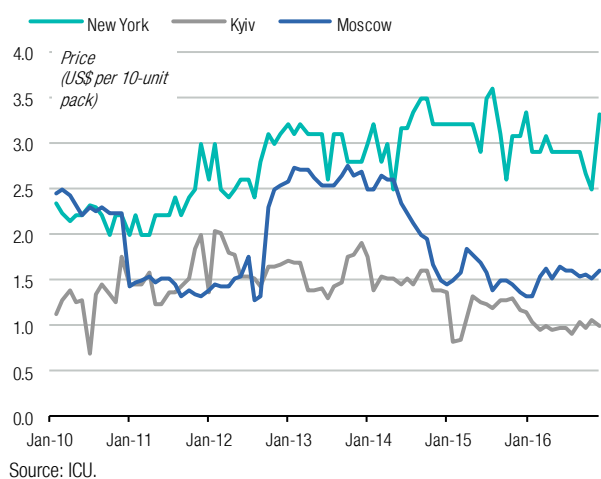
Price history February 2010 - December 2016

**Chart 63. Chicken meat 1 kg pack of boneless breast (US\$)**

Price history February 2010 - December 2016

**Chart 64. Chicken eggs 10-unit pack (US\$)**

Price history February 2010 - December 2016

**Chart 65. Pasta 0.5 kg soft package Italy-made (US\$)**

Price history February 2010 - December 2016

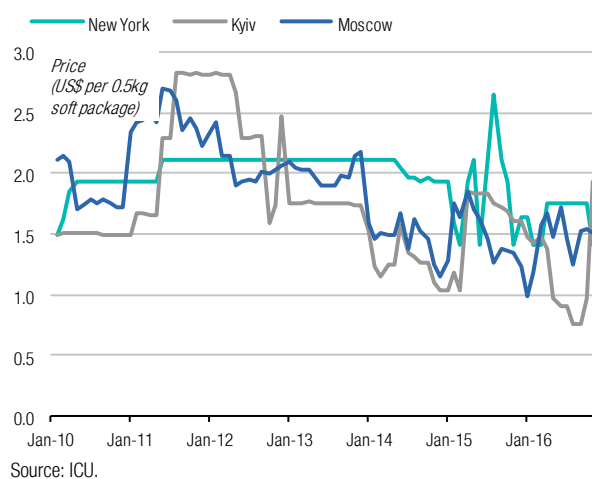
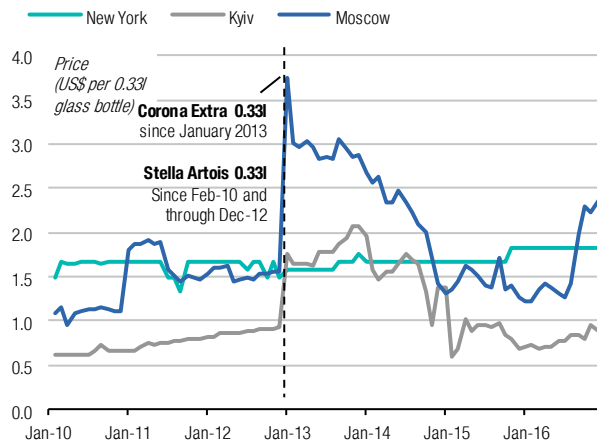


Chart 66. Beer Corona Extra 0.33 litre glass bottle (US\$)

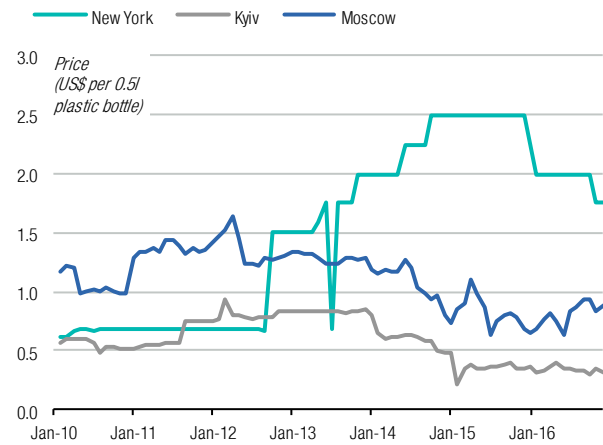
Price history February 2010 - December 2016



Source: ICU.

Chart 67. Coca-Cola 0.5 litre plastic bottle (US\$)

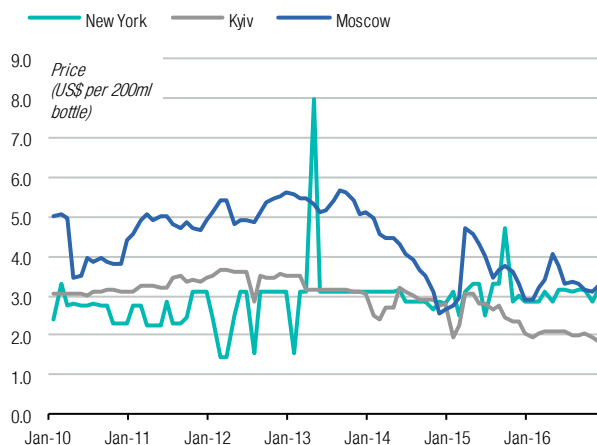
Price history February 2010 - December 2016



Source: ICU.

Chart 68. Shampoo 200ml bottle Head & Shoulders (US\$)

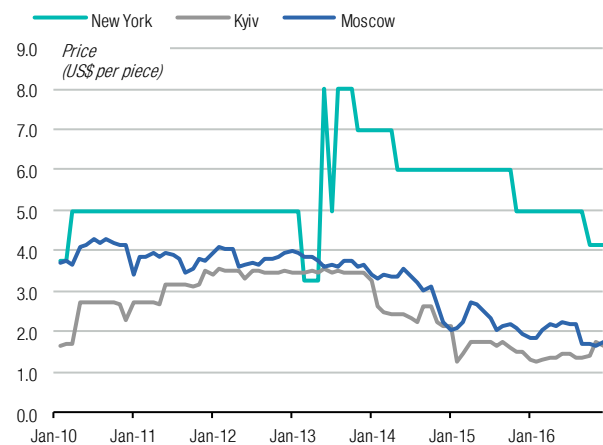
Price history February 2010 - December 2016



Source: ICU.

Chart 69. Magazine Men's Health, A4 format (US\$)

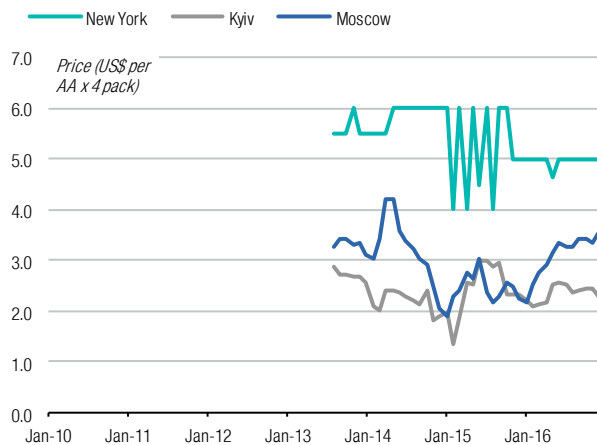
Price history February 2010 - December 2016



Source: ICU.

Chart 70. Duracell batteries (AA x 4 pack) (US\$)

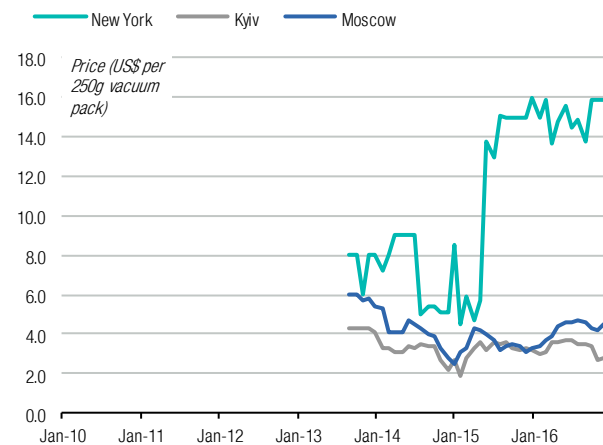
Price history February 2010 - December 2016



Source: ICU.

Chart 71. Jacobs Monarch coffee, 250 g vacuum pack (US\$)

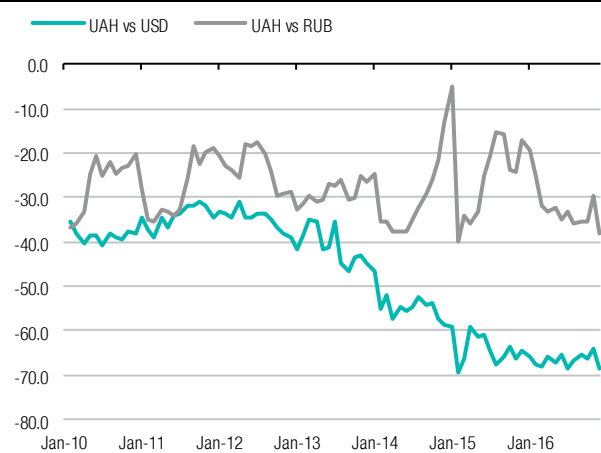
Price history February 2010 - December 2016



Source: ICU.

Chart 72. Value gap of ICU basket in UAH vs. USD and RUB (%)

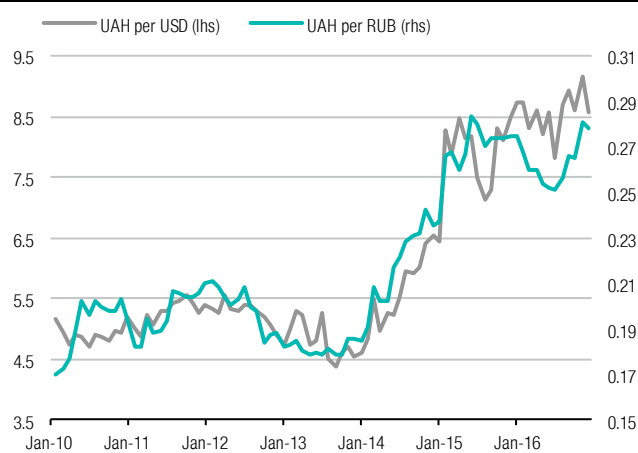
Price history February 2010 - December 2016



Source: ICU.

Chart 73. An exchange rate level of UAH per USD and UAH per RUB, which would eliminate the value gap of ICU basket

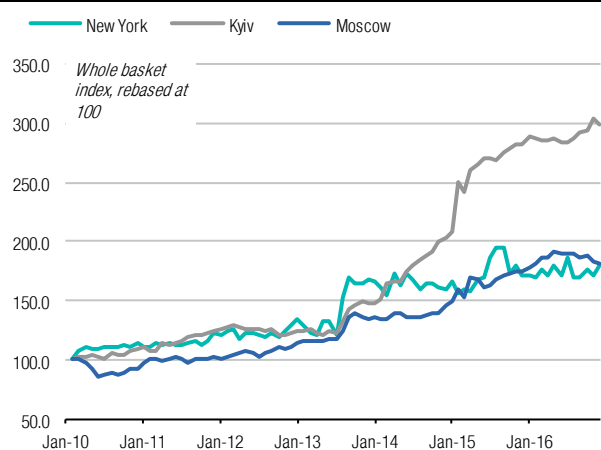
Price history February 2010 - December 2016



Source: ICU.

Chart 74. Index of the ICU consumer basket value in local currency (points, rebased at 100 as of February 2010)

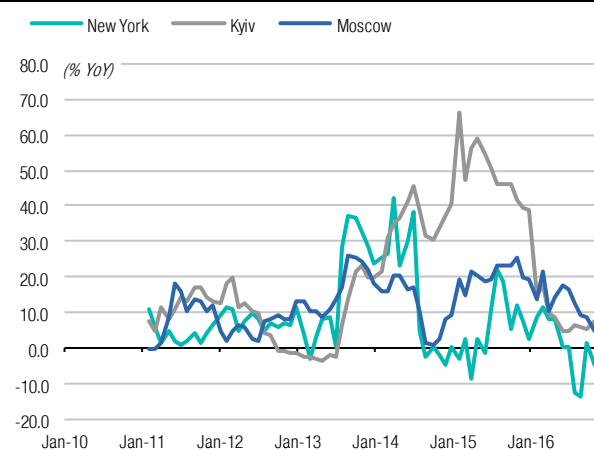
Price history February 2010 - December 2016



Source: ICU.

Chart 75. Growth rate of the index of the ICU consumer basket value in local currency (% YoY)

Price history February 2010 - December 2016

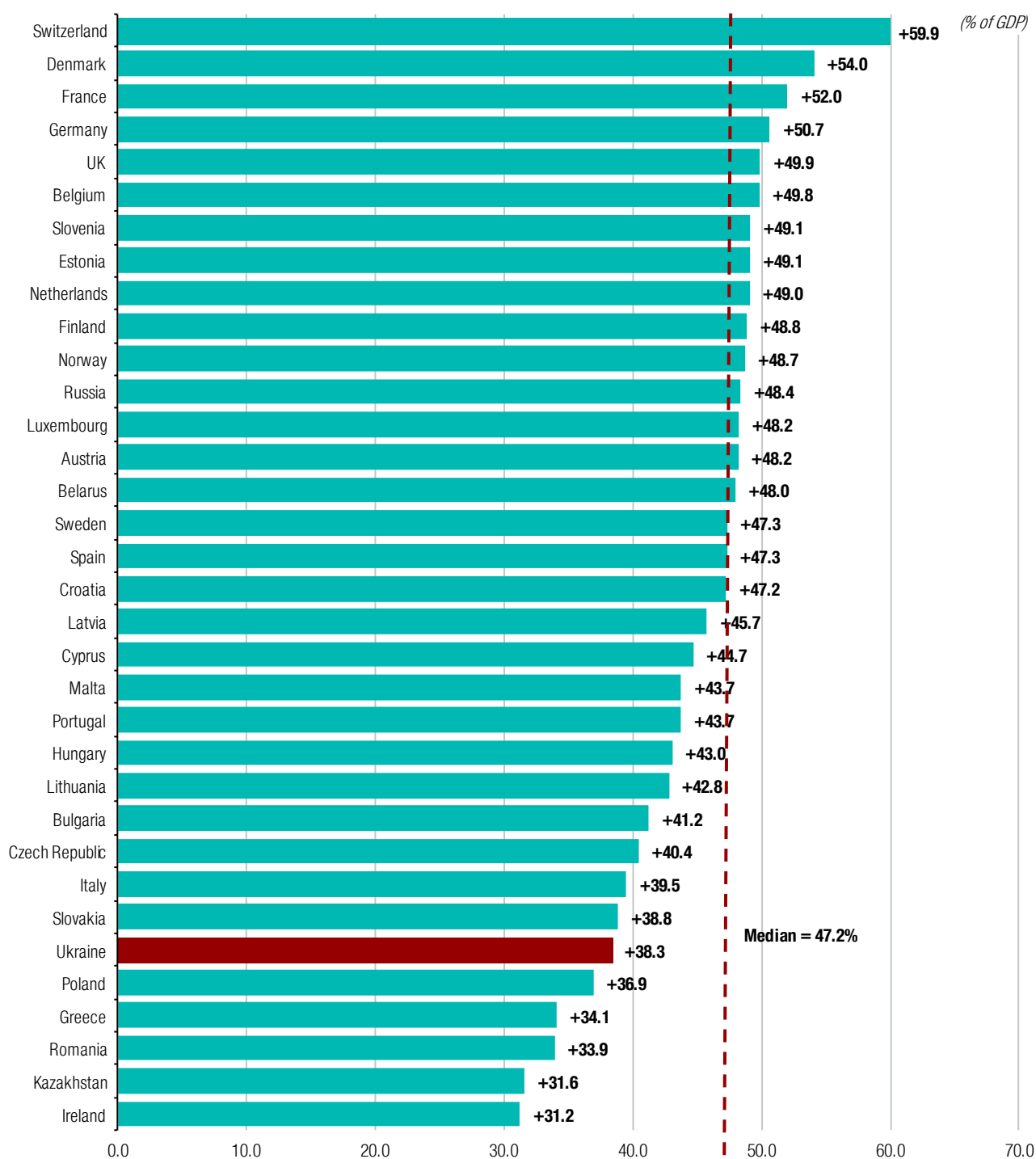


Source: ICU.

Ukraine vs. other economies: Change of GDP structure by income over 2014-15 and 9M16

Chart 76. Share of wages in GDP (% of total): Ukraine versus other economies (developed and emerging)

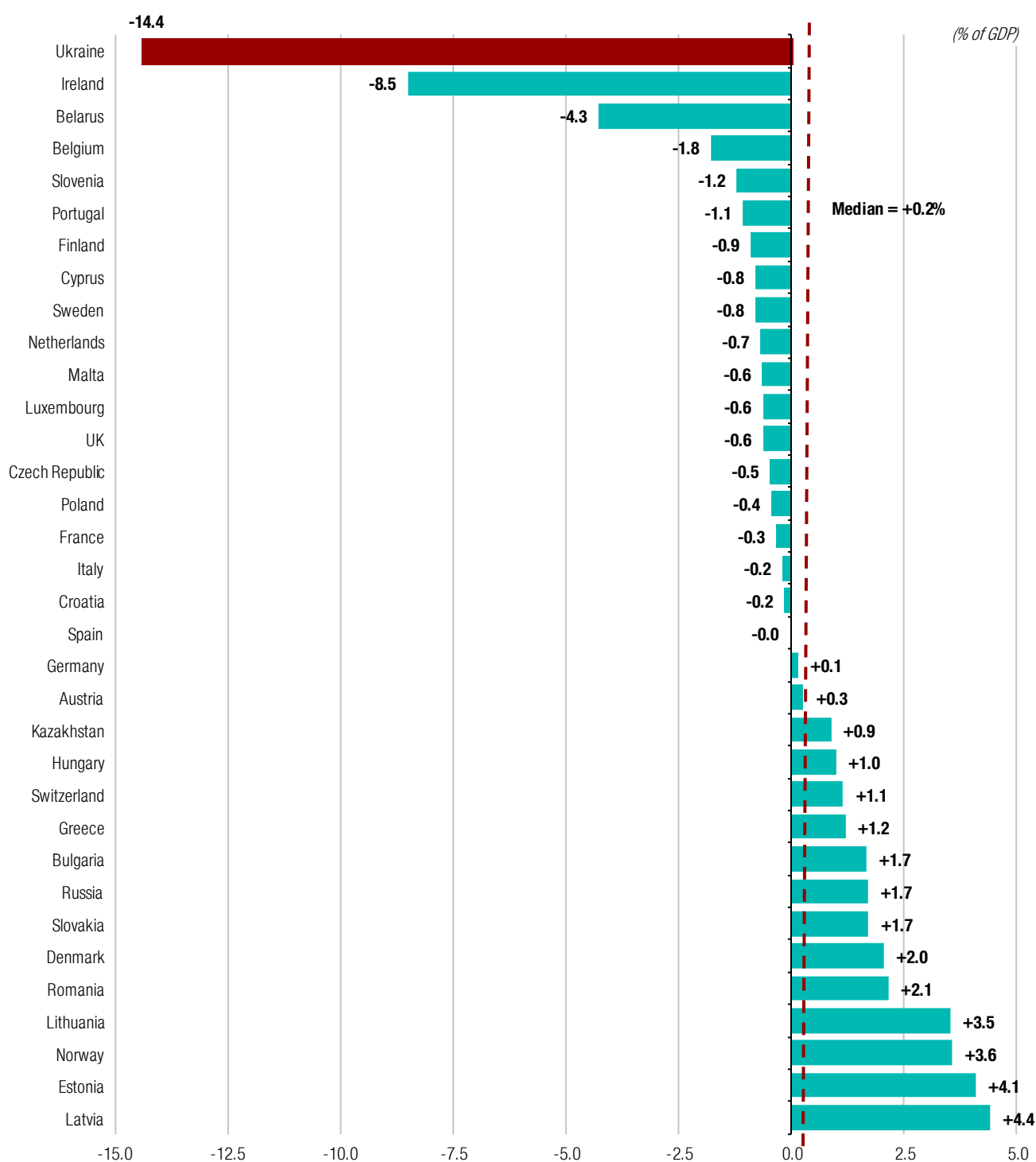
Last four-quarter period from 4Q of 2015 through 3Q of 2016



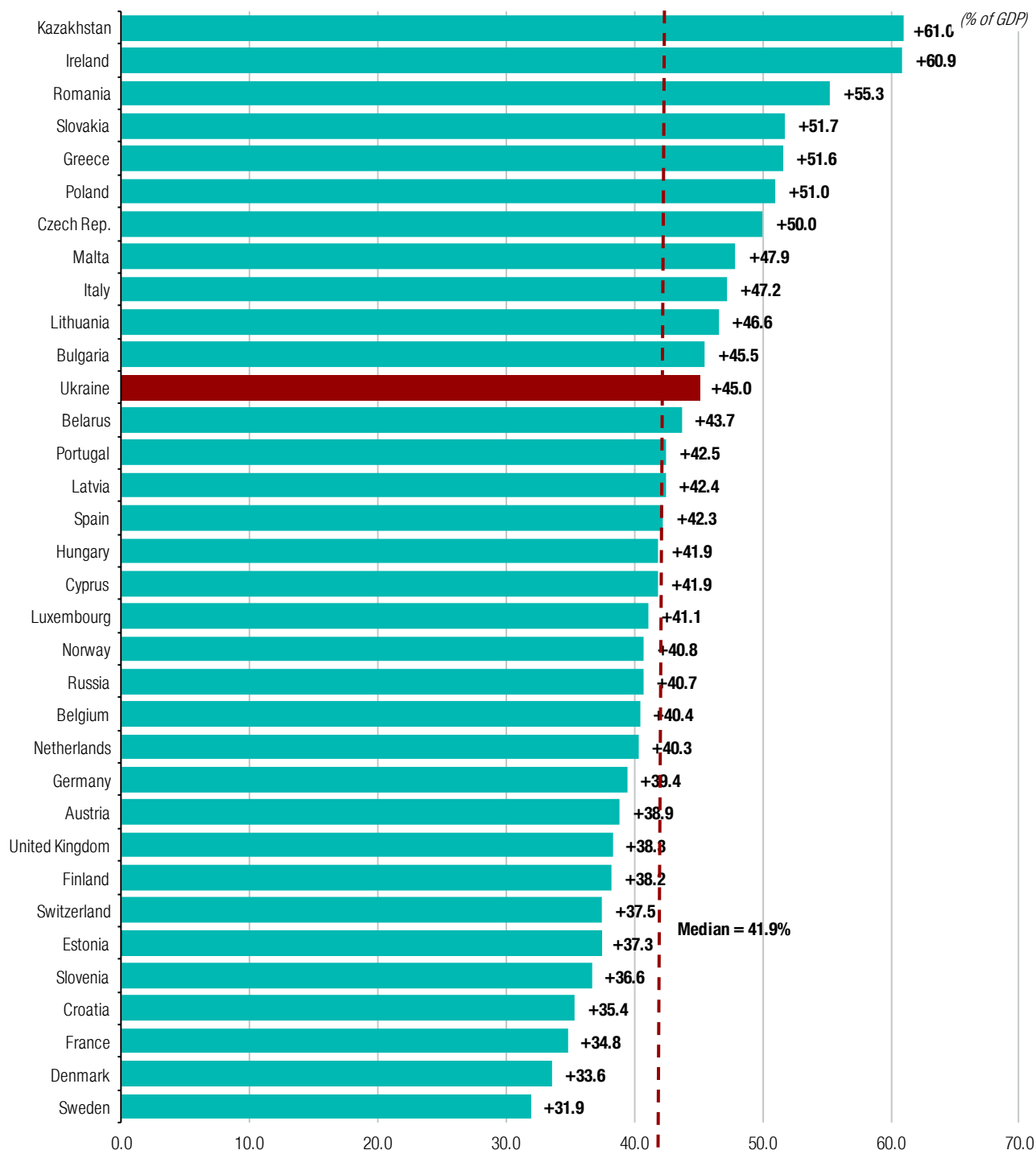
Source: State Statistics Service of Ukraine, national statistics agencies, ICU.

**Chart 77. Change of the level of wages in GDP from 4Q of 2013 through 3Q of 2016 (% of total):
Ukraine vs. other economies (developed and emerging)**

Based upon the historical last four-quarter rolling data



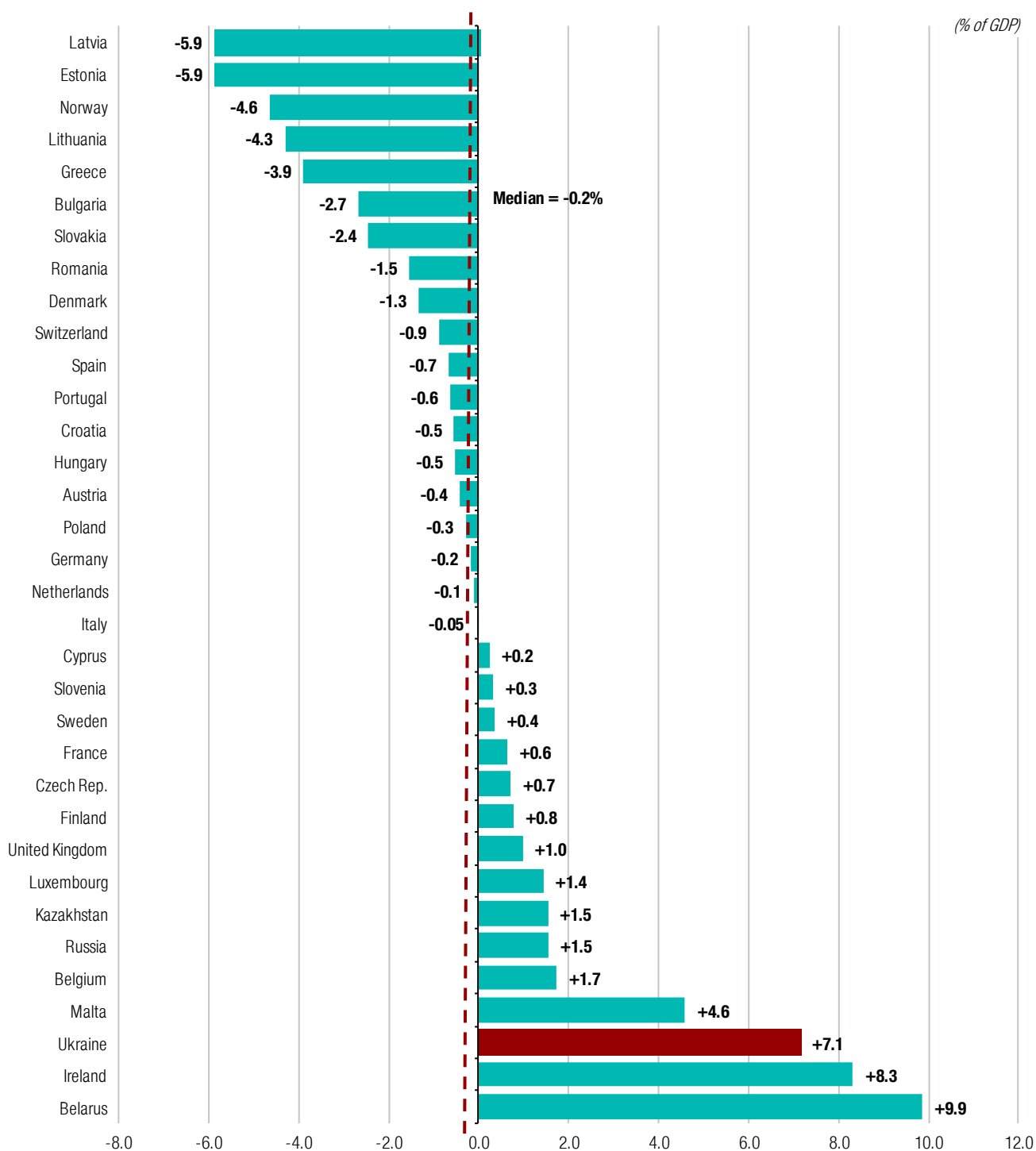
Source: State Statistics Service of Ukraine, national statistics agencies, ICU.

Chart 78. Share of incomes in GDP (% of total): Ukraine versus other economies (developed and emerging)*Last four-quarter period from 4Q of 2015 through 3Q of 2016*

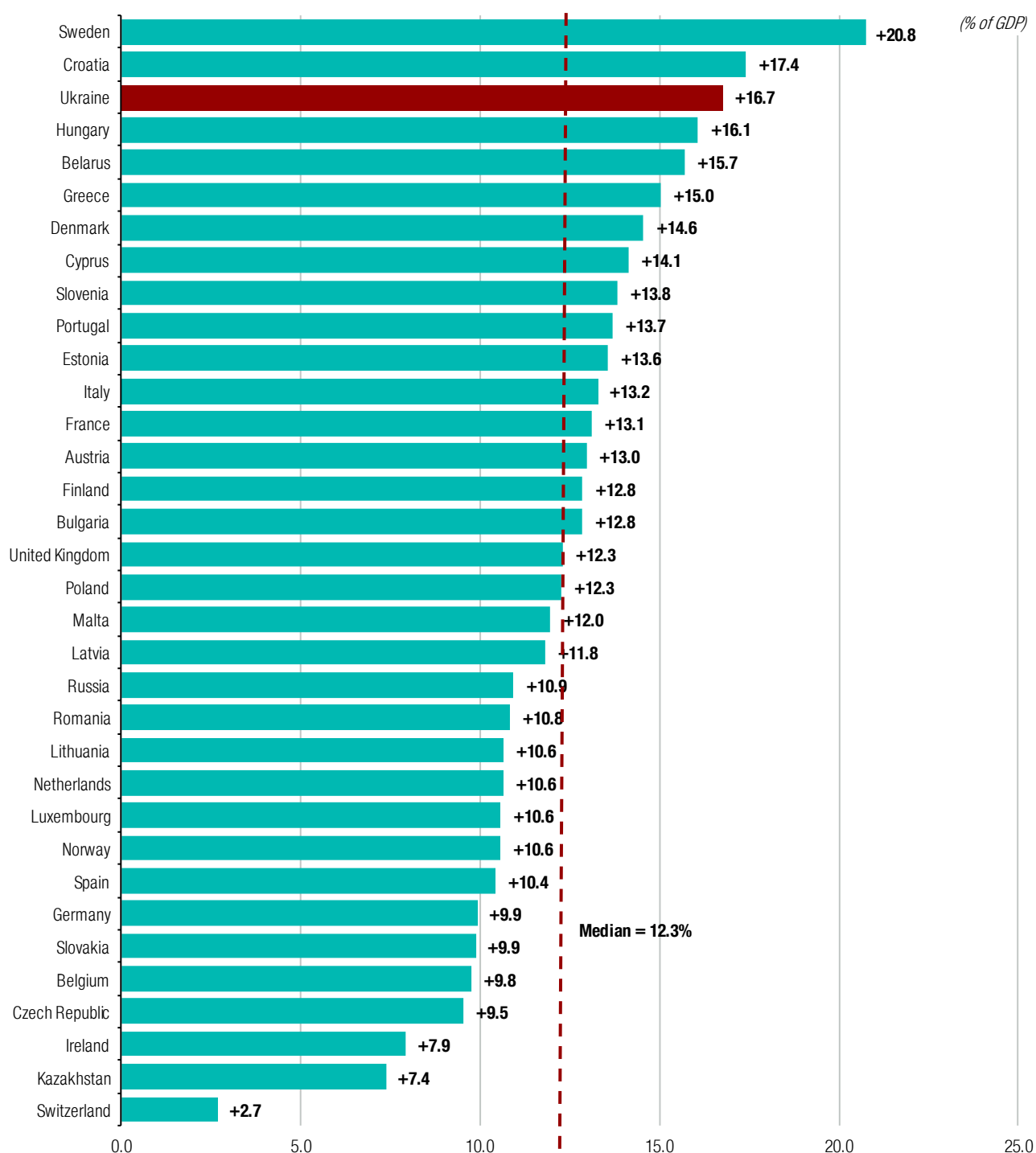
Source: State Statistics Service of Ukraine, national statistics agencies, ICU.

Chart 79. Change of the level of incomes in GDP from 4Q of 2013 through 3Q of 2016 (% of total): Ukraine versus other economies (developed and emerging)

Based upon the historical last four-quarter rolling data



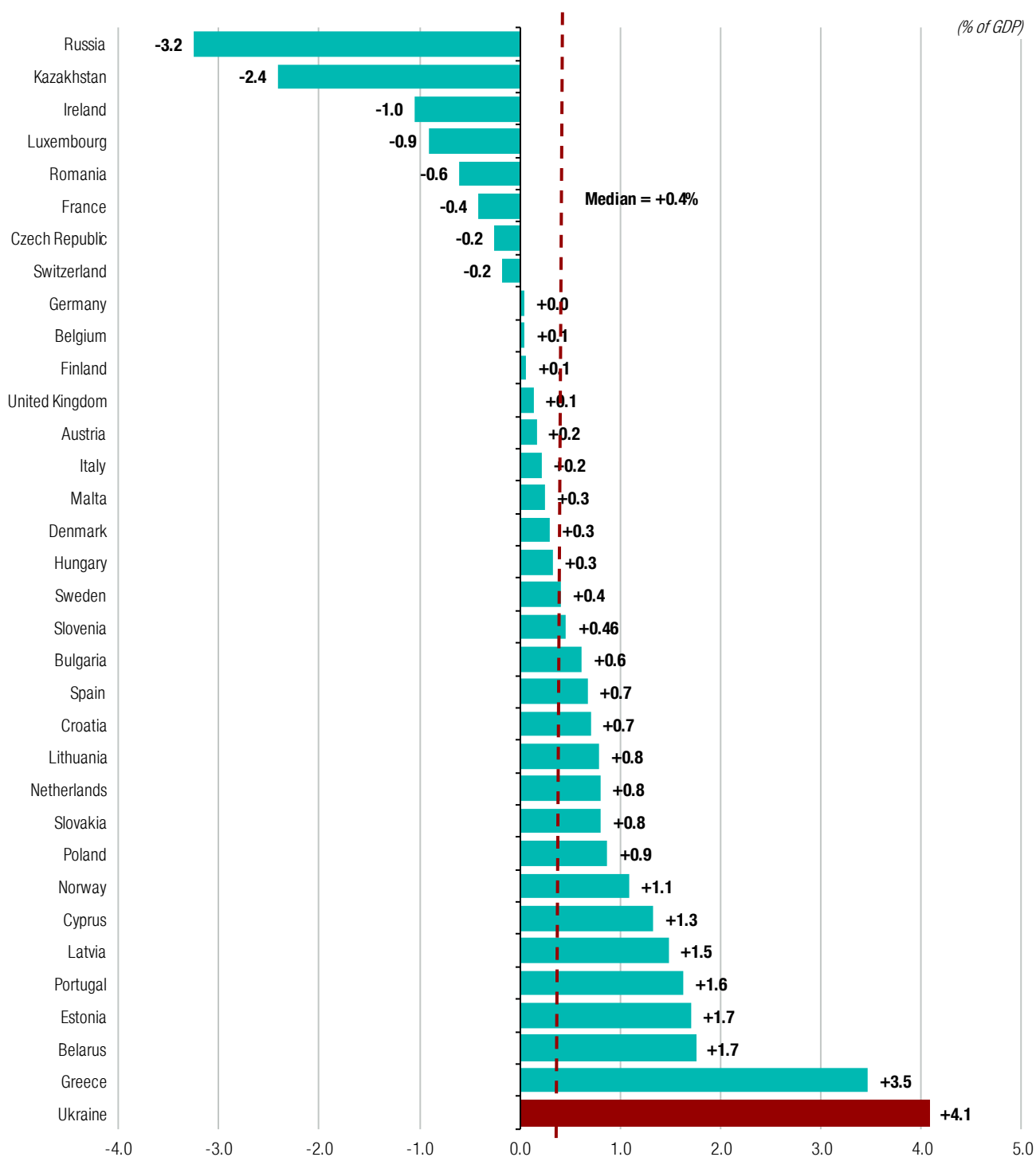
Source: State Statistics Service of Ukraine, national statistics agencies, ICU.

Chart 80. Share of taxes in GDP (% of total): Ukraine versus other economies (developed and emerging)*Last four-quarter period from 4Q of 2015 through 3Q of 2016*

Source: State Statistics Service of Ukraine, national statistics agencies, ICU.

Chart 81. Change of the level of incomes in GDP from 4Q of 2013 through 3Q of 2016 (% of total): Ukraine versus other economies (developed and emerging)

Based upon the historical last four-quarter rolling data



Source: State Statistics Service of Ukraine, national statistics agencies, ICU.

Disclosures

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Hold: Forecasted 12-month total return 0% to 20%

Sell: Forecasted 12-month total return less than 0%

Note: total return is share price appreciation to a target price in relative terms plus forecasted dividend yield.

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