



NATIONAL BANK OF UKRAINE

March 2015 Inflation Review

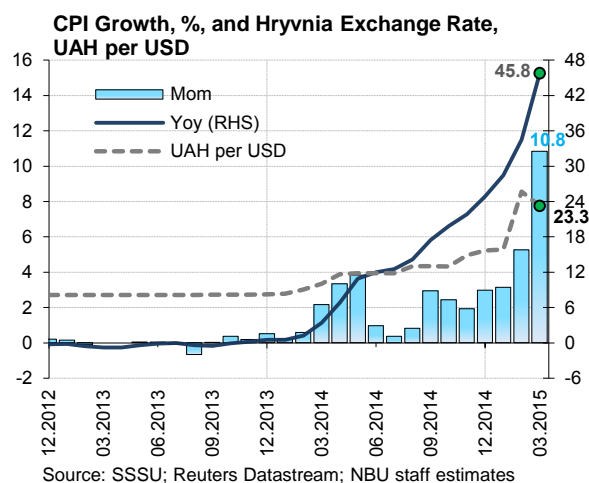
In March, consumer inflation sharply accelerated and reached 10.8% mom (10.1% mom on a seasonally adjusted basis and 45.8% in annual terms) on account of a massive hryvnia devaluation at the end of February, which was reflected in the March price statistics due to peculiarities of data collection (see Annex 1), accompanied by tax changes and feverish consumer demand.

Industrial price index grew by 10.5% mom and 51.7% yoy. Increase in marginal gas prices for industrial enterprises by 56.1% mom in March (by 185.9% yoy) was a strong driver of industrial price inflation.

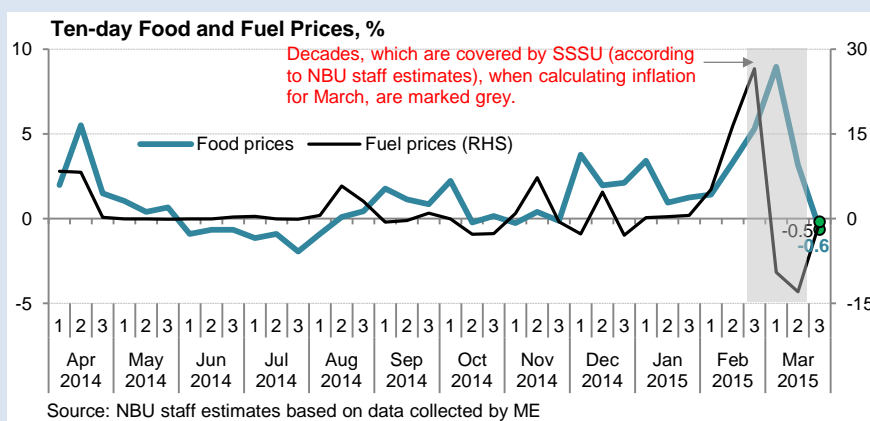
Consumer Price Index (CPI) growth accelerated in March to reach 10.8% mom. After seasonal adjustment, CPI rose by 10.1% mom.

Unexpectedly high inflation rate suggests that the March price statistics reflected exchange rate overshooting in late February when the interbank exchange rate reached UAH 30 per US dollar (on February 26). The subsequent hryvnia appreciation against US dollar that followed proactive NBU measures to stabilize foreign exchange market was only marginally reflected in the price data due to peculiarities of the data collection procedure of the State Statistics Service of Ukraine (SSSU).

Officially, the SSSU collects raw prices (tariffs) between the 1st and 25th day of each month (and during the whole month for select commodities). But according to the NBU findings (see Annex 1) data collection by the SSSU is undertaken between the 21st day of the previous month and the 20th day of the month under review.



A Ten-Day Analysis of Select CPI Components



Data collected by the Ministry of Economy of Ukraine on a 10-day basis allow saying that the strongest impact of hryvnia depreciation on prices has passed its peak. In particular, according to the NBU estimates, over the last ten days of March, a period that was only partially taken into account by SSSU for calculation of the March inflation rate, showed a decrease in food prices (by 0.6% in 10 days).

According to SSSU, fuel prices grew by 9.3% mom in March. However, a 10-day price analysis shows a significant rise in fuel prices only in the last decade of February (by 26.6% compared to the previous decade), whereas in March fuel prices went down (by 21.6% mom in total).

Apart from the direct impact of the exchange rate movements, the price growth was driven by:

changes in tax legislation enforced at the end of February – the introduction of special import duties (except critical imports) of 10% for foods and 5% for other commodities¹;

feverish consumer demand kindled by the panic during the exchange rate overshooting;

high inflation expectations. In particular, since the beginning of last year, inflation expectations of enterprises for the next 12 months have been surging (27.3% in February²). The representatives of enterprises mentioned that prices have been rising amid expected growth in the cost of production (or purchase value) of their goods.

Core and non-core CPIs were growing at almost the same pace in March – 10.8% mom and 10.9% mom respectively. In annual terms, core inflation accelerated to 44.6%, non-core inflation – to 47.6%.

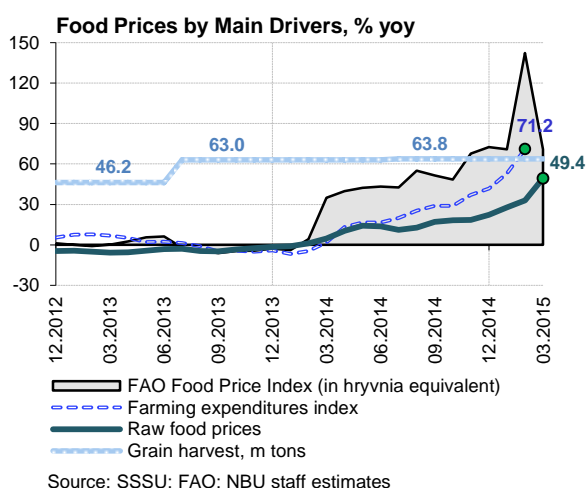
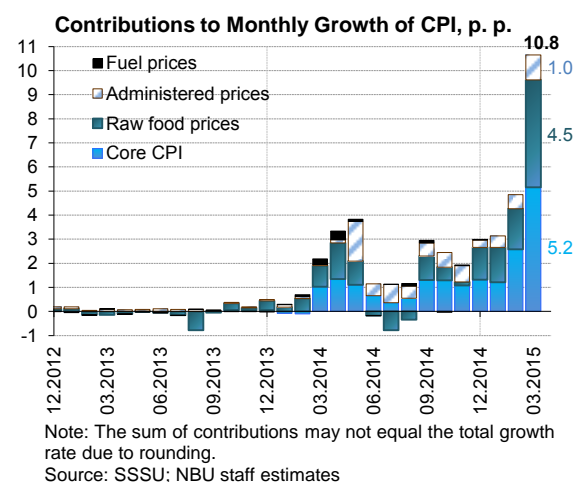
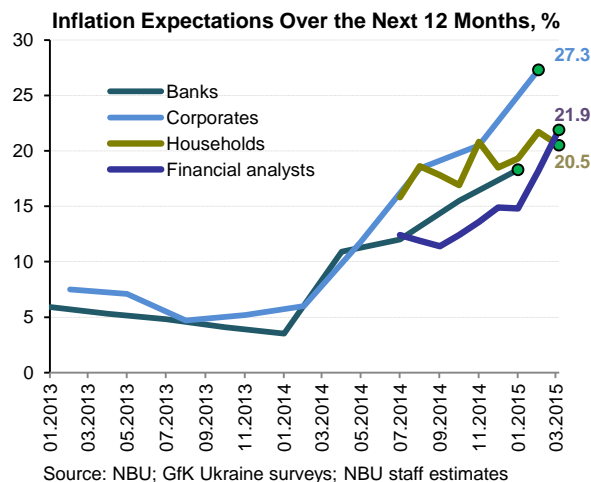
Prices for foods included in the core CPI (primarily processed-food products) grew by 13.1% mom (54.0% yoy) due to second-round effects of energy, fuel and raw product price increase.

Narrow core inflation, which tracks prices of non-food non-energy items (which are mostly imported), was 11.8% mom in March, driving annual increase to 47.3%. Prices for clothes and footwear grew by 13.5% mom due to retailers' selling new season goods imported during the period of the strongest hryvnia depreciation.

Prices for services grew at the slowest rate (3.2% mom and 17.2% yoy) as they are the least dependent on the exchange rate developments.

In March, raw food prices showed the highest growth - by 15.8% mom (49.4% yoy). Fruits, being largely represented by imports, rose in price by 31.9% mom contributing 1.1 p.p. to monthly growth of CPI. Prices for vegetables increased (by 17.1% mom) due to rising cost of their storage and anticipated growth of production expenditures, in particular during spring sowing campaign (index of farming expenditures rose by 15.4% mom and 71.2% yoy in February).

Feverish consumer demand for foods with a long shelf life was a potent driver for a surge in prices of flour (by 52.6% mom), sugar (by 39.2% mom) and grains (by 18.7% mom) in March. In annual terms, the price growth for these commodities accelerated to 134.3%, 64.4% and 148.6%, respectively.



¹ According to the NBU estimates on the basis of SSSU data, the share of imports within the goods sold through the distribution network was 14.5% for foods and 61% for non-foods in 2013 (the latest available data).

² According to the NBU Business Outlook Survey, Q1, 2015.

Sugar Prices

Sugar prices have resumed their growth in early 2015 after a slight decline during sugar refining season. Given the domestic-market-oriented sugar production and virtually absent imports, the devaluation of hryvnia had no direct impact on sugar prices. At the same time, energy comprises a significant part of the sugar production costs. Thus, natural gas accounts for 42–45%³ of the production costs, the cost of which grew sharply amid hryvnia devaluation. In addition, a rise in sugar prices may reflect an expected increase in future production costs.

At the same time, due to high crop of sugar beets, sugar production amounted to 2.08 million tons in 2014/2015 marketing year (2014/2015 MY) and was 71.7% higher than in the previous marketing year. As a result, taking into account beginning sugar stocks (344 thousand tons), Ukraine has abundant supplies of sugar in 2014/2015 MY - i.e. 2.43 million tons, which is way above the domestic sugar use, estimated at 1.68 million tons.

Thus, **March's surge in sugar prices (by 39.2% mom) may be principally attributed to feverish population demand for foods with a long shelf life** as well as to an expected increase in future production costs.

Wheat Flour Prices

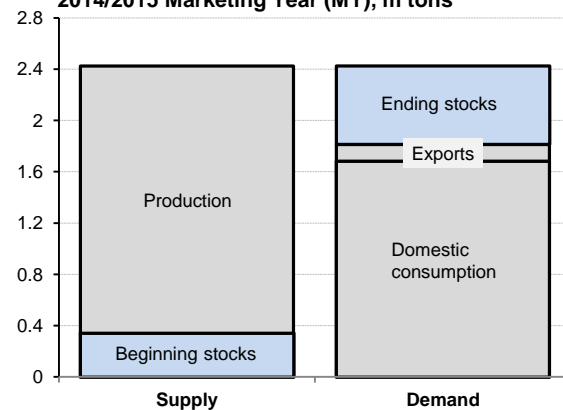
There is a strong correlation with a one-month lag between domestic wheat flour and grain prices. In February, domestic prices for wheat increased 2.3 times in annual terms. Given that a substantial part of wheat is exported (exports are forecast at 11.7 million tons in 2014/2015 MY), changes in global commodity prices and movements in the exchange rate have a significant impact on domestic prices.

Rising costs of fertilizers, pesticides and fuels was also an important driver of domestic wheat prices.

Thanks to the high crop, domestic supply of wheat in 2014/2015 MY is high. Wheat production in the current marketing year was 8.2% higher than in the previous year and amounted to 24.1 million tons. Taking into account the beginning stocks in the amount of 3.7 million tons, the supply of wheat in 2014/2015 MY is estimated at 27.8 million tons, which exceeds domestic needs (12 million tons) and the projected exports.

Thus, the spike in domestic wheat flour prices in March (by 52.6% mom) was the result of a consumers' rush of buying and a 32.6% mom increase in the hryvnia equivalent of world wheat in February. At the same time, hryvnia strengthening during March and, consequently, lower world

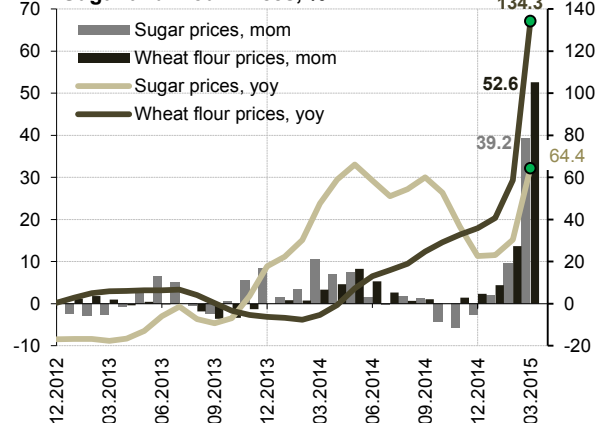
Ukraine's Sugar Supply-Demand Balance in the 2014/2015 Marketing Year (MY), m tons*



* Excluding Crimea and Sevastopol (included to exports).

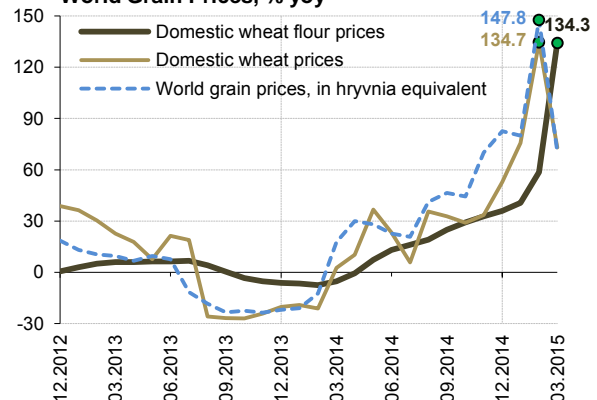
Source: Interagency Working Group under ME

Sugar and Flour Prices, %



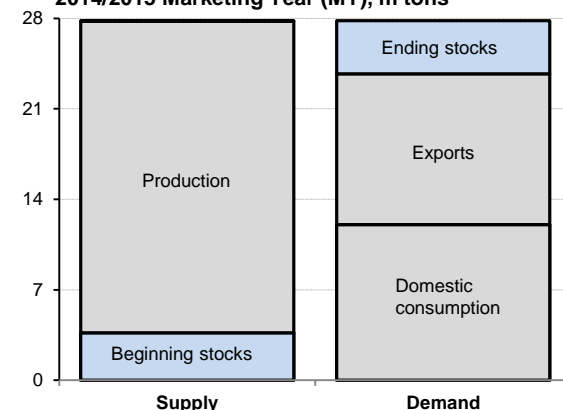
Source: SSSU; NBU staff estimates

Domestic Wheat and Wheat Flour Prices and World Grain Prices, % yoy



Source: SSSU; Reuters Datastream; FAO; NBU staff estimates

Ukraine's Wheat Supply-Demand Balance in the 2014/2015 Marketing Year (MY), m tons*



* Excluding Crimea and Sevastopol (included to exports).

Source: Interagency Working Group under ME.

³ Based on SC "Derzhzovnishinform" estimates.

wheat prices in hryvnia equivalent (by 4.6% mom) is a prerequisite for a downward correction of domestic wheat flour prices in April.

Administered prices, despite further acceleration to 4.7% mom (41.5% yoy) in March, grew at a moderate pace compared to other CPI components. Prices for bread rose the most – by 22.7% mom, due to the increase in its production costs.

Fuel prices increased by 9.3% mom in March. There was a significant increase in prices for liquefied gas for vehicles (by 54.6% mom) after the decline in the previous three months (by 8.6% in total). In annual terms, fuel prices slowed slightly in March (to 80.8%), but their rate of increase exceeded those of other major CPI components. The increase in fuel prices was an important driver of rising prices on other consumer basket components through their direct impact on transportation costs.

Producer price index (PPI) rose by 10.5% mom and 51.7% yoy in March.

The main drivers of PPI inflation in March were:

A surge in energy prices, particularly for natural gas: the marginal price (the maximum price) of natural gas for industrial consumers was increased by 56.1% mom in March, which drove the annual growth to 185.9%;

Disruptions in production links and raw materials supplies from enterprises in the eastern regions of Ukraine to the processing enterprises in other regions;

Direct impact of hryvnia devaluation on prices of import-dependent and export-oriented industries (prices of the latter are usually linked to the hryvnia equivalent of external prices).

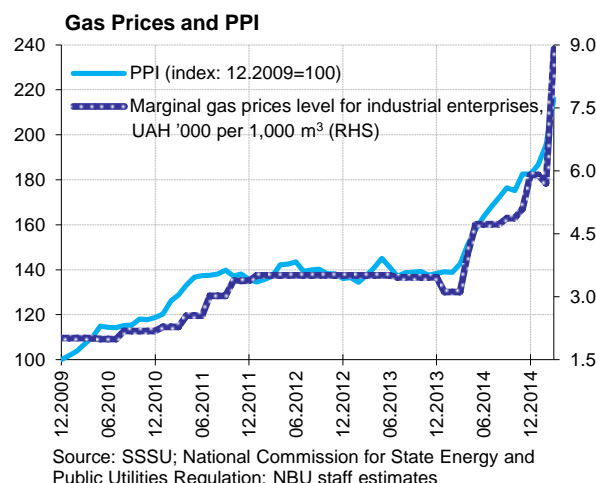
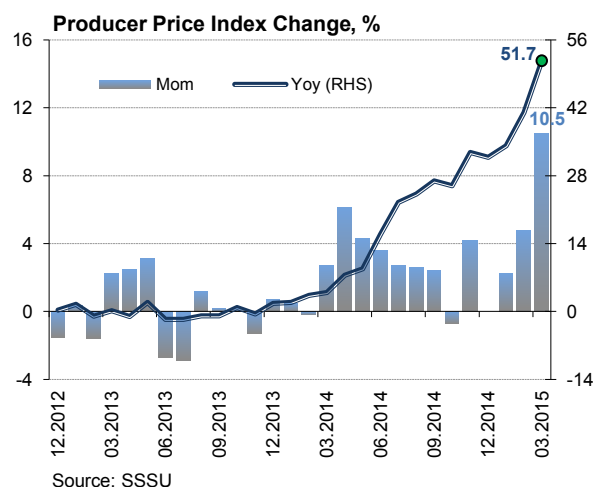
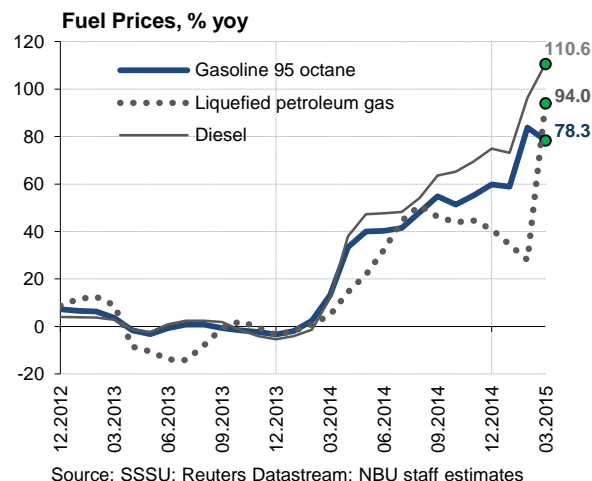
In March global steel and iron ores prices (in US dollars) continued to fall (by 3.6% mom and 7.9% mom respectively), while ammonia prices remained almost unchanged (+0.8% mom). In annual terms, the respective prices kept declining: for steel products – by 19.6%, for metal ores – by 48.2%, for ammonia – by 13.1%.

However, domestic prices of corresponding industries were under direct and indirect (via the cost of inputs) pressure of hryvnia devaluation. As a result, producer prices continued to rise:

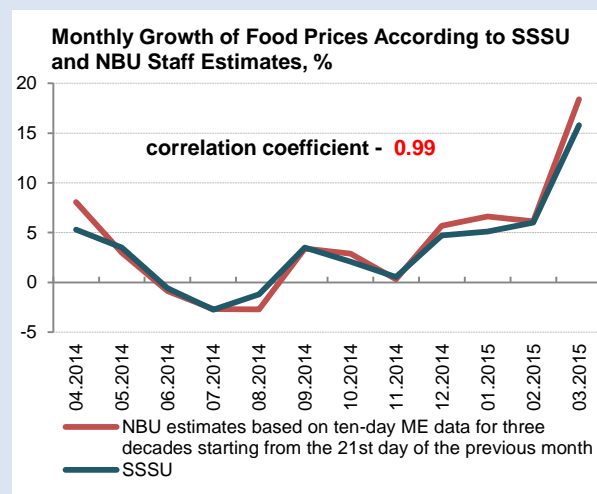
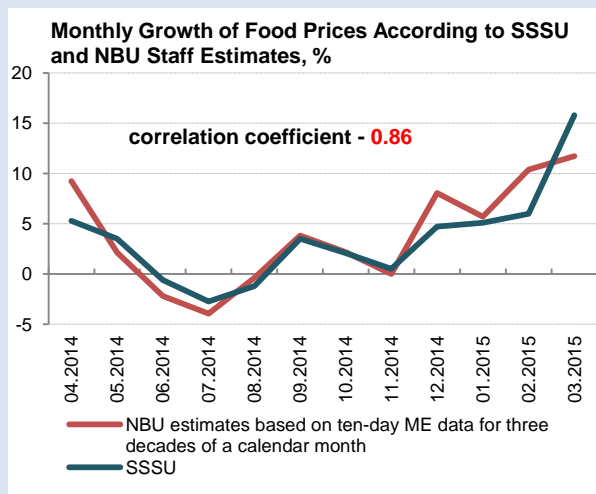
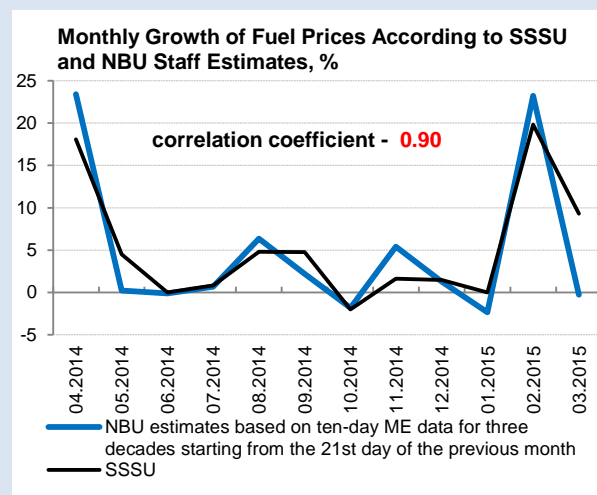
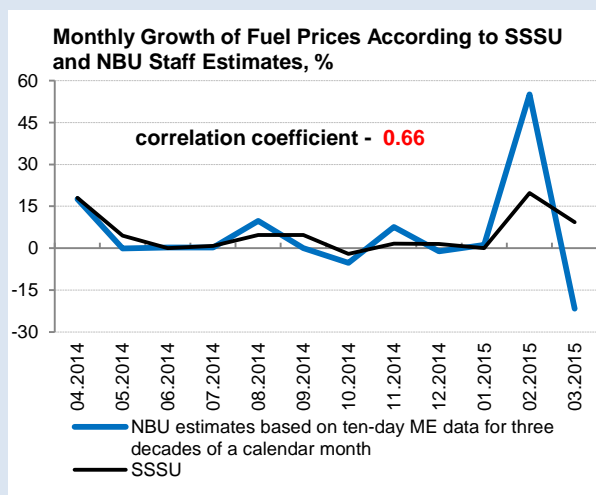
in metallurgical industry - by 14.6% mom and 70.5% yoy;

in metal ore mining - by 12.7% mom and 41.8% yoy;

in manufacture of chemicals and chemical products– by 5.9% mom and 83.5% yoy.



High food price inflation in March, reported by SSSU, was a result of SSSU covering the period of peak increase in food prices after hryvnia devaluation. According to its methodological provisions (the respective extract is provided below), SSSU undertakes price registration from the 1st to the 25th day of a month or during the entire month (prices of goods which shares exceed 0.5% in the consumer basket). However, the NBU used the 10-day data from the Ministry of Economic Development and Trade of Ukraine to show that price changes for three decades starting from the 21st day of the previous month have higher correlation with SSSU data than price changes for three decades of the calendar month (this is proved by both graphic comparison and correlation analysis⁴).



The abovementioned calculations allow suggesting that SSSU data on monthly price changes do not include price developments at the end of each reporting month but they are included in the calculation of the next month inflation.

Extract from the SSSU methodology on price statistics

Price (tariff) registration in all urban settlements shall be done every month from the 1st to the 25th day. The price registration of select goods shall be done during the entire month. These are the goods with the share of expenditures on their purchase exceeding 0.5% of total household spending on goods and services, and the prices for which fluctuate considerably during a month (such as: beef, pork, poultry, frozen fish, sunflower oil, pasteurized milk, eggs, sugar, wheat flour, bread, rice, buckwheat grains, pasta of soft wheat flour, gasoline A-76, A-80, A-92, A-93, A-95).

⁴ The correlation ratio between the change in food prices for three decades (according to the Ministry of Economic Development and Trade of Ukraine data) starting from the 21st day of the previous month and the monthly price change reported by SSSU was 0.99 (while the correlation ratio between the price change for three decades of a calendar month and the monthly change reported by SSSU was 0.86), and between the fuel price change for three decades starting from the 21st day of the previous month and the monthly price change according to SSSU - 0.90 (0.66 respectively).

Annex 2

| CPI and PPI growth by components* | | | | | |
|---|--------------------|----------------|--------------------------------------|---------------|--------------------------------------|
| CPI (NBU classification) | | | | | |
| | share in CPI, % | monthly change | | annual change | |
| | | change, % | contribution to CPI change, p. p. | change, % | contribution to CPI change, p. p. |
| Consumer Price Index | 100.0 | 10.8 | 10.8 | 45.8 | 45.8 |
| Core inflation | 47.7 | 10.8 | 5.2 | 44.6 | 21.1 |
| Non-core inflation | 52.3 | 10.9 | 5.7 | 47.6 | 24.7 |
| Raw food | 28.2 | 15.8 | 4.5 | 49.4 | 13.9 |
| Administered prices and tariffs | 22.0 | 4.7 | 1.0 | 41.5 | 9.1 |
| Fuel | 2.1 | 9.3 | 0.2 | 80.8 | 1.6 |
| CPI (SSSU classification) | | | | | |
| Food and non-alcoholic beverages incl.: | 50.7 | 15.6 | 7.9 | 53.4 | 27.1 |
| Bread and cereals | 7.7 | 21.7 | 1.7 | 78.0 | 6.0 |
| Bread | 2.9 | 22.7 | 0.7 | 68.7 | 2.0 |
| Wheat | 0.5 | 52.6 | 0.3 | 134.3 | 0.7 |
| Meat | 12.1 | 6.2 | 0.7 | 38.1 | 4.6 |
| Fish | 3.6 | 20.7 | 0.8 | 86.8 | 3.2 |
| Milk | 1.9 | 5.5 | 0.1 | 20.2 | 0.4 |
| Eggs | 1.2 | 1.2 | 0.0 | 50.6 | 0.6 |
| Oil and fats | 4.8 | 16.2 | 0.8 | 50.6 | 2.4 |
| Edible animal fats | 1.1 | 4.5 | 0.1 | 39.8 | 0.4 |
| Fruits | 3.5 | 31.9 | 1.1 | 120.2 | 4.2 |
| Vegetables | 4.1 | 17.1 | 0.7 | 19.6 | 0.8 |
| Potatoes | 1.1 | 10.2 | 0.1 | -34.2 | -0.4 |
| Sugar | 1.1 | 39.2 | 0.4 | 64.4 | 0.7 |
| Alcoholic beverages, tobacco | 6.9 | 3.3 | 0.2 | 36.9 | 2.5 |
| Clothing and footwear | 7.0 | 13.5 | 0.9 | 31.2 | 2.2 |
| Housing, water, electricity, gas and other fuels incl.: | 11.1 | 1.1 | 0.1 | 37.7 | 4.2 |
| Imputed rentals for housing | 1.4 | 0.1 | 0.0 | 2.6 | 0.0 |
| Hot water | 0.4 | 0.0 | 0.0 | 47.6 | 0.2 |
| Natural gas | 2.0 | 0.0 | 0.0 | 62.8 | 1.3 |
| Central heating | 1.8 | -0.2 | 0.0 | 44.6 | 0.8 |
| Transport | 4.9 | 7.4 | 0.4 | 65.5 | 3.2 |
| Fuels and lubricants | 2.1 | 9.3 | 0.2 | 81.0 | 1.7 |
| Passenger transport by railway | 0.2 | 4.9 | 0.0 | 23.2 | 0.1 |
| Passenger transport by road | 1.6 | 10.5 | 0.2 | 42.8 | 0.7 |
| Communication | 3.4 | 1.7 | 0.1 | 5.6 | 0.2 |
| Education | 1.4 | 2.0 | 0.0 | 13.4 | 0.2 |
| <i>Others</i> | 14.6 | - | 1.2 | - | 6.2 |
| PPI | | | | | |
| | share in PPI, % | monthly change | | annual change | |
| | | change, % | contribution to PPI change, p. p. | change, % | contribution to PPI change, p. p. |
| Producer Price Index | 100.0 | 10.5 | 10.5 | 51.7 | 51.7 |
| Mining and quarrying | 13.0 | 10.8 | 1.4 | 46.5 | 6.0 |
| Manufacturing of coal | 3.2 | 1.1 | 0.0 | 49.6 | 1.6 |
| Extraction of crude petroleum and natural gas | 2.6 | 31.2 | 0.8 | 50.7 | 1.3 |
| Mining of metal ores | 6.1 | 12.7 | 0.8 | 41.8 | 2.6 |
| Manufacturing | 68.2 | 9.5 | 6.5 | 55.3 | 37.4 |
| Manufacture of food products, beverages and tobacco | 21.5 | 10.7 | 2.3 | 52.6 | 11.3 |
| Manufacture of coke, and refined petroleum products | 3.7 | 2.4 | 0.1 | 63.8 | 2.4 |
| Manufacture of chemicals and chemical products | 3.9 | 5.9 | 0.2 | 83.5 | 3.3 |
| Manufacture of rubber and plastics products, and other non-metallic mineral products | 4.8 | 9.4 | 0.4 | 49.4 | 2.3 |
| Manufacture of basic metals and fabricated metal products, except machinery and equipment | 19.2 | 14.6 | 2.8 | 70.5 | 13.5 |
| Manufacture of transport equipment | 3.2 | 1.6 | 0.1 | 16.4 | 0.5 |
| Electricity, gas, steam and air-conditioning supply | 18.8 | 13.4 | 2.5 | 44.6 | 8.3 |

* NBU estimates based on SSSU data. The sum of contributions, given in the tables, may not equal the total growth rate due to data rounding.