

ECONOMIC COMMENT

21 June 2018

Scorching heat not enough to end inflation freeze

High temperatures and low rainfall in April, May and June of this year caused an agricultural drought in Poland, which affected cereals and fruit shrubs and trees. In our view, it will have a negative impact on their output and will push up fruit prices, but negligibly from the perspective of the CPI path this year. The risk for the impact of the drought on consumer prices is, however, skewed to the upside. If the dry spell remains in the weeks to come, the vegetable output, unharmed by now, may be damaged, which would have a meaningful positive impact on CPI growth rate this year, potentially keeping it close to 2% y/y for the remaining part of the year. We maintain our assumption that the first hike of 25bp will be implemented at the end of 2019, with two more to follow in 2020.

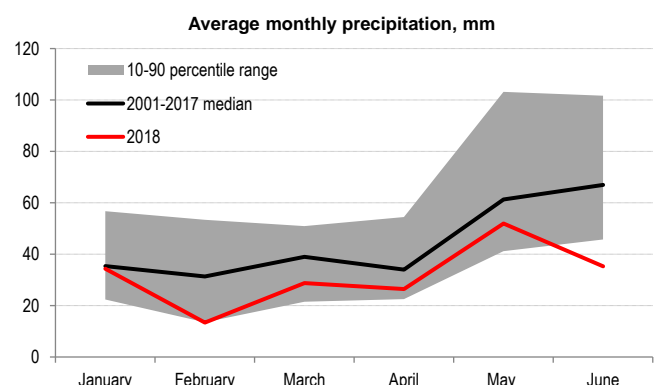
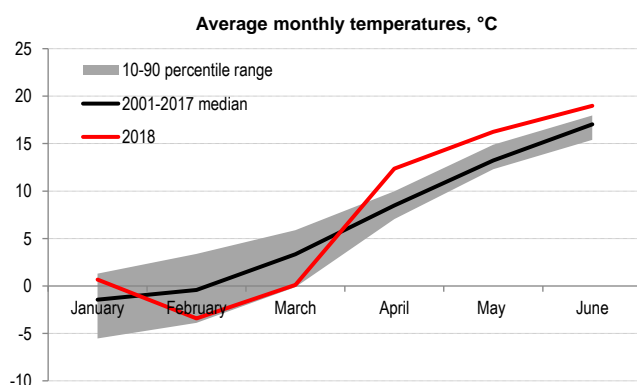
Marcin Luziński
tel. 22 534 18 85
marcin.luzinski@bzwbk.pl

Grzegorz Ogonek
tel. 22 534 19 23
grzegorz.ogonek@bzwbk.pl

Inflation at the start of 2018 withered, and its oil-stimulated rebound in April and May was bleak. One of the factors that have hampered rather than helped lift inflation this year, is the food prices, which is a consequence of the high base from 2017. Last year saw a conjunction of many factors push the food price inflation higher: disturbed supply of fruits and vegetables imported from Southern Europe in February, severe ground frost, highly damaging to fruit crops, globally elevated prices of butter. Eggs prices also rose heavily in 2017 due to fipronil contamination in Western Europe and so did the prices of pork (in the whole Europe). On top of that, this year winter ended relatively early, and the weather conditions were favourable for the abundant and early fruit and vegetable crops, which had an adverse impact on their pricing.

2018 drought

The historically high temperatures were accompanied by scarce rainfall. In April, May and June, the average temperature in Poland was 2-4°C higher than the median in 2001-2017; even higher than 90 percentile of temperatures observed in those months (this means temperature as high as that is observed once in ten years). The rainfall, in turn, has since the beginning of the year stayed below the 2001-2017 average. Over the first 20 days of June, the rainfall dropped below 10 percentile (this means that rainfall as low as this comes only once in ten years).



The unusual meteorological conditions brought about a drought already in mid-April. According to the Institute of Soil Science and Plant Cultivation (IUNG-PIB), in the period ranging from April 11 to June 10, 64.67% of summer cereals sowing area, 49.44% of fruit shrubs, 48.97% of winter cereals, 47.67% of strawberry fields, and 17.33% of fruit trees were at risk of drought. In case of

ECONOMIC ANALYSIS DEPARTMENT:

al. Jana Pawła II 17, 00-854, Warszawa fax +48 22 586 83 40
email: ekonomia@bzwbk.pl Web site: <http://www.bzwbk.pl>
Piotr Bielski +48 22 534 18 87
Marcin Luziński +48 22 534 18 85
Grzegorz Ogonek +48 22 534 19 23
Konrad Soszyński +48 22 534 18 86
Marcin Sulewski +48 22 534 18 84

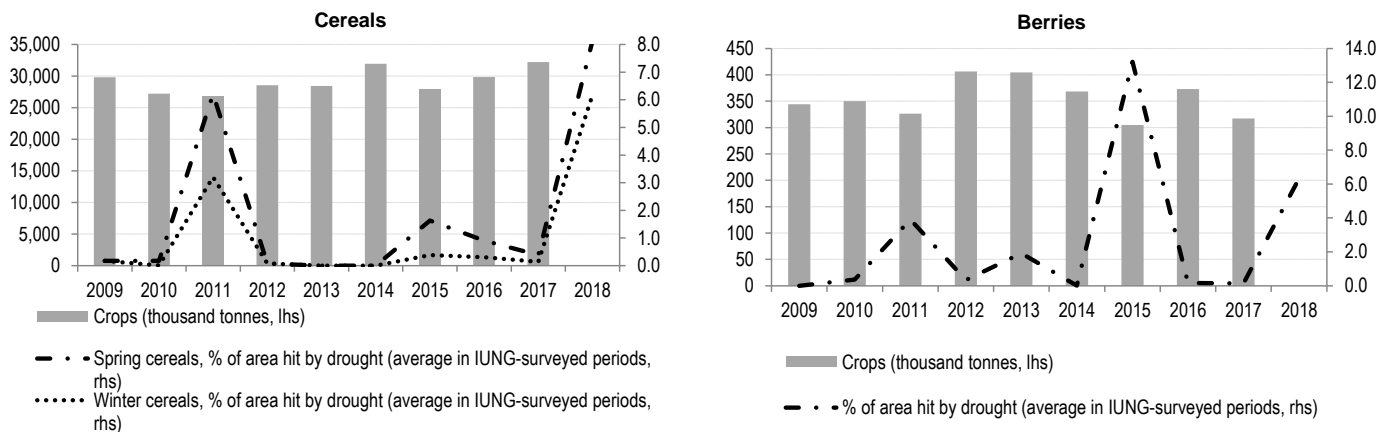
TREASURY SERVICES:

Poznań +48 61 856 5814/30
Warszawa +48 22 586 8320/38
Wrocław +48 71 369 9400

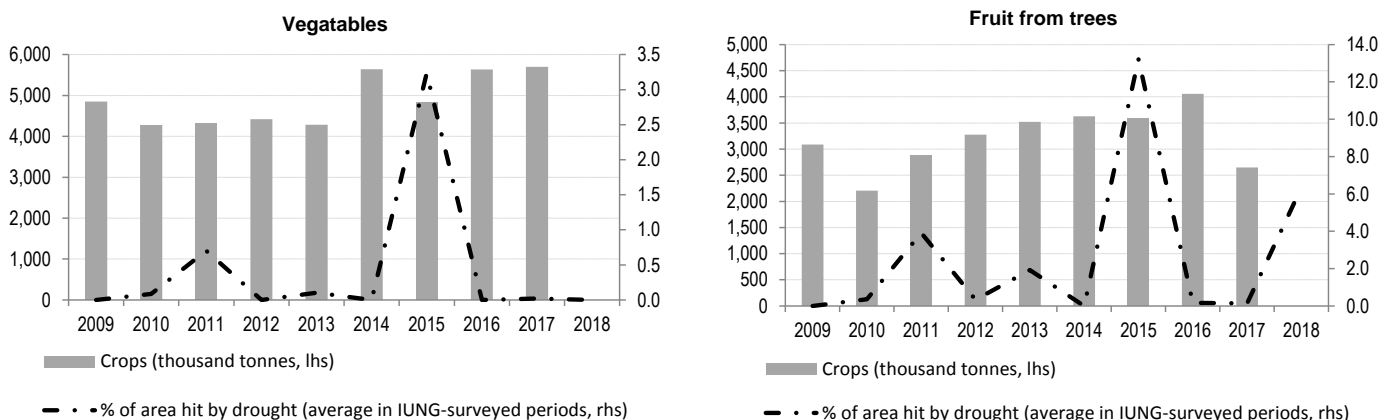
summer cereals and strawberries, the recorded values were the highest observed since the monitoring began in 2009.

Supply of agriculture products can go down

Supply of some agriculture products may be limited because of the drought. IUNG-PIB reports mention a loss of crops of at least 20% in the stricken regions compared to a situation of normal soil hydration. The institute's remark covered summer and winter cereals, fruit shrubs and trees, strawberries, rape and turnip rape. COCERAL, the European association of cereal traders, estimates that this year's cereal crops could decrease by 1.1% in Poland.

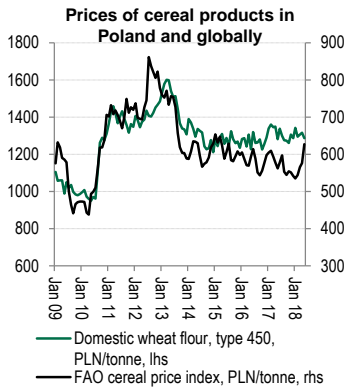


Droughts hit Poland before in 2011 and 2015. Cereal production decreased back then by 1.7% y/y and 12.3% y/y, respectively. Note, however, that 2010 crops were poor because of the heavy showers in May, which flooded farmlands and prevented spraying, leading to more plant diseases. If we compare 2011 crops to 2009 instead of 2010 we will see a decline by 10.3%. In the same years, fruit shrubs suffered from drought, yielding 6.7% y/y and 17.2% y/y less fruits. Based on historical data, we estimate that this year's drought may decrease the output of cereals and fruit shrubs by c10-15%. In case of fruit shrubs, the base period for comparison should be 2016, as in 2017 the crops were damaged by ground frost. In other words, we expect cereals production to reach 27.5-29mn tonnes (with annual domestic demand at c27-28mn tonnes, according to the Agency for Agriculture Market (ARR) and berries production (ex strawberries) to reach 320-335k tonnes (so most likely more than in 2017). We do not expect a radical drop in strawberry supplies; harvest for retail sale ended before the drought. Also, we do not expect that there was a big impact on fruit trees, as the drought is affecting them to a lesser extent. What is more, in 2017 fruit trees suffered heavily from ground frost (production down by 35%) and this year's crops are most likely to go to beat the previous year's result. The first assessment of 2018 crops will be released by Statistics Poland on July 30.

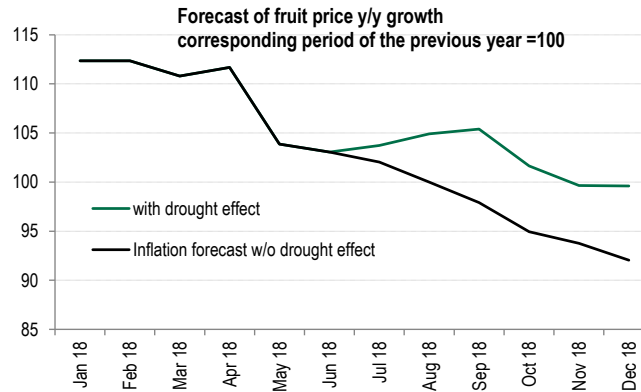


Drought's impact on prices

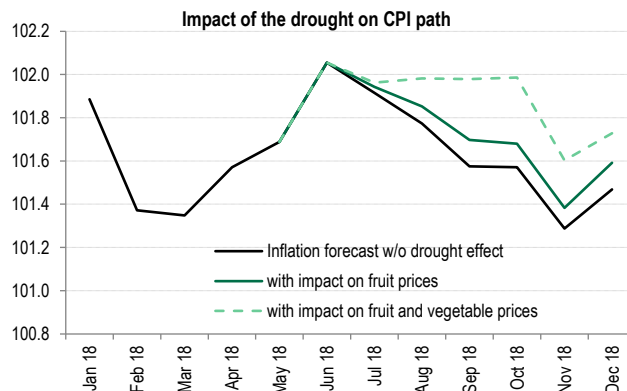
Economic intuition suggests that lower supply of agriculture products should be price-positive. According to IUNG-PIB, spring cereals are in the biggest danger, but they are less meaningful for the domestic supply than winter cereals (according to Statistics Poland, winter cereals make up c65% of total cereal output and are better fitted to resist droughts). Additionally, cereal output in 2018 should be enough to cover the domestic demand, even despite drought-related losses. Additionally, cereals are globally-traded goods and their price is not vulnerable to local supply



disruptions. For example, correlation of domestic prices of wheat, rye and flour with FAO cereal price index falls into 0.8-0.9 range. Thus, we are not expecting the drought to affect cereal prices in Poland. According to the Institute of Meteorology and Water Management, grasses succumbed to negative weather conditions and this may be negative for animal feed, so also for animal-related output.



On the other hand, we expect the weaker output will translate into higher fruit prices. In our view, the drought will add up to 2-3 percentage points to the average fruit prices growth in 2018 and a bit more than 7 percentage points in December 2018. This is a rather aggressive estimate, assuming that fruit prices will fall by 6.5% between July and December. In 2010-2017, prices fell by 13.3% on average in the same period. In 2015, year hit by a drought, fruit prices fell by 8.8% and in 2017, year hit by ground frost, by 3.3%. Thus, our estimate falls between results of 2015 and 2017 and is markedly above the average. Fruit price growth assumed by us will add 0.18pp to food prices on average in 2018 and 0.5pp in December 2018. Total impact on inflation will be negligible (about 0.1pp).



However, if the drought continues, it might affect other agriculture products, especially vegetables, which weigh by a factor of 1.5 more than fruit in the CPI basket. This category has been historically vulnerable to droughts with volatility ranging even 20 percentage points. If we assume that vegetables will follow path similar to 2015, CPI would be marching close to 2% in the months to come (with the final readings of the year should be lower than 2%).

Market impact

Is such an increase in inflation likely to affect the MPC? Even though the Council is behind other EM central banks, which have hiked rates already more than 20 times this year, in Poland the hawkish camp is in full retreat, and the NBP President, Adam Glapiński, pursues a dovish policy with support of most MPC members. What is more, inflation data so far support the MPC's patient approach and reluctance to raise rates. If in the coming months wage growth finally translated to higher prices, leading to a gradual rise of core CPI, then a simultaneous growth of food prices might theoretically increase the fears of some MPC members about inflation prospects. However, let us note that the MPC did not tighten its wording when inflation projection showed CPI escaping above the target in mid-2019, or when oil prices started a decisive march upwards. It seems that the surprising weakness of core inflation this year had elevated the tolerance for developments in food and energy prices. Apart from that, in the negative scenario about the drought's impact we described above, CPI path goes below 2% in late 2018, so it is not the scale of changes that could cause a headache to the central bank.

We do not change our assumption that the first hike of 25bp will be implemented at the end of 2019.

Conclusions

High temperatures and low rainfall in April, May and June of this year caused an agricultural drought in Poland, which affected cereals and fruit shrubs and trees. In our view, it will have a negative impact on their output and will push up fruit prices, but negligibly from the perspective of the CPI path this year. The risk for the impact of the drought on consumer prices is, however, skewed to the upside. If the dry spell remains in the weeks to come, the vegetable output, unharmed by now, may be damaged, which would have a meaningful impact on CPI growth rate this year, potentially keeping it close to 2% y/y in the months to come (but in late 2018 it should decline somewhat).

This publication has been prepared by Bank Zachodni WBK S.A. for information purposes only. It is not an offer or solicitation for the purchase or sale of any financial instrument. Information presented in the publication is not an investment advice. All reasonable care has been taken to ensure that the information contained herein is not untrue or misleading. But no representation is made as to its accuracy or completeness. No reliance should be placed on it and no liability is accepted for any loss arising from reliance on it. Forecasts or data related to the past do not guarantee future prices of financial instruments or financial results. Bank Zachodni WBK S.A. its affiliates and any of its or their officers may be interested in any transactions, securities or commodities referred to herein. Bank Zachodni WBK S.A. or its affiliates may perform services for or solicit business from any company referred to herein. This publication is not intended for the use of private investors. Clients should contact analysts at and execute transactions through a Bank Zachodni WBK S.A. entity in their home jurisdiction unless governing law permits otherwise. Copyright and database rights protection exists in this publication. Additional information is available on request. Please contact Bank Zachodni WBK S.A. Financial Management Division, Economic Analysis Department, al. Jana Pawła II 17, 00-854, Warsaw, Poland, phone +48 22 534 18 87, email ekonomia@bzwbk.pl, <http://www.bzwbk.pl>.