

Türkiye: Lower than expected February CPI

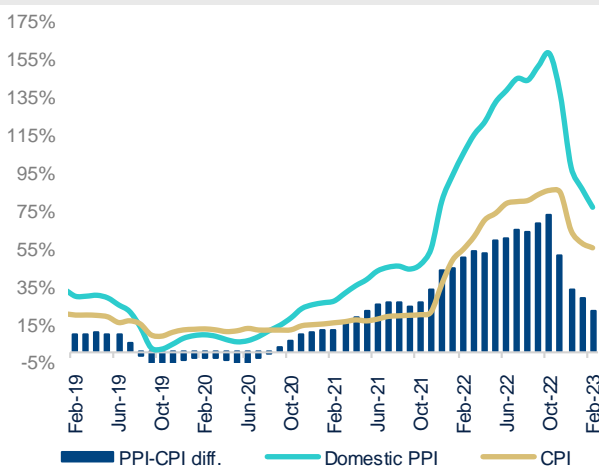
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03/03/2023

Consumer prices rose by 3.15% in January, lower than both our expectations (4.2%) and market consensus (3.5%) while annual inflation continued to come down to 55.2% from 57.7% the month before. The main deviation in our forecast was mainly due to food inflation, which remained significantly higher than its seasonal average. Meanwhile, domestic producer prices rose by 1.6% m/m and annual PPI declined to 76.6% from 86.5%, helped by weaker energy prices and almost stable currency. Nevertheless, strong consumption, continuing cost push factors, second round effects and high inertia keep underlying inflation trends worsening. Additionally, uncertainties about supply side factors due to the latest quakes particularly in food-related items and upcoming increase in fiscal spending raise upside risks on inflation. Led by our expectations of a gradually depreciating currency before elections, we expect base effects to help annual CPI to fall to near 45% in May. Inflation outlook thereafter will depend on the adjustment in economic policies and consequently the exchange rate. We forecast year-end inflation to be 45% with risks tilted to the upside.

Continuing pressure from high food and services inflation

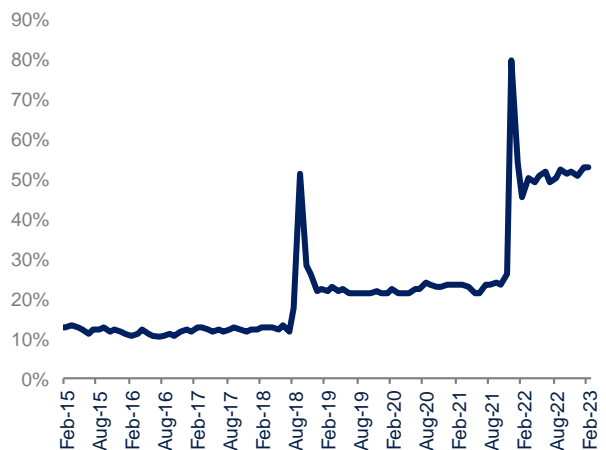
Core prices (C index) inflation retreated significantly to 2.1% m/m from 7.7% m/m in January, mainly helped by a weaker increase in basic good prices (1.2% m/m). Accordingly, annual core inflation decelerated to 50.6% y/y, down from 53% y/y in January. Seasonal effects continued to help with a contraction in clothing and footwear prices (-1.9 m/m), which was one of the main drivers of the deceleration in basic good prices together with other basic goods (1.1% m/m). However, services inflation remained strong with an increase of 3.1% m/m, following a sharp monthly rise (12.7% m/m) in January, which signals further strengthening in inflation inertia. The strong realizations in restaurants and hotels (4.1% m/m) and rent prices (2.7% m/m) were the main reasons of high monthly services inflation. However, annual services inflation still geared down to 61.6% m/m from 62.4% the month before, thanks to the high base of last year. All in all, despite almost stable currency, robust demand and moderating but continuing cost push factors keep inflationary pressures, which turn out to feed second round effects and reinforce inertia further.

Figure 1. CPI vs Domestic PPI, YoY



Source: Garanti BBVA Research, Turkstat

Figure 2. Exchange Rate Pass-thru on Core D, recursive



Source: Garanti BBVA Research, Turkstat

Food inflation remained significantly higher than its seasonal average (7.6% m/m vs. 2.4% in the current 2003 series), which resulted in an annual figure of 68.6% but still slowed down limitedly on favourable base effects. The main driver of the sharp increase in monthly food inflation was unprocessed food prices, particularly fresh fruit and vegetable prices, recording the highest monthly increase (18% m/m) since April 2022, and the high trend in other unprocessed food prices (6.8% m/m) due to the recent price hikes in meat and dairy products. Besides, processed food inflation continued to remain high with 4.6% m/m. Logistical problems due to the latest earthquakes might have already added

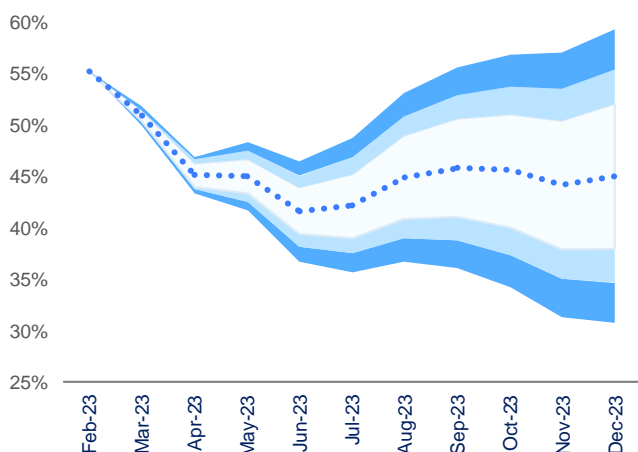
pressure on food prices, which we expect to continue with additional supply-side problems and implications of a potential drought this year, thereby limiting the expected correction in food prices especially from May to July.

Energy prices increased slightly by 0.6% m/m due to some ease in fuel prices, resulting in an annual energy inflation of 50% y/y, the lowest level since the beginning of 2022. Finally, 1.6% monthly increase in domestic producer prices signaled a somewhat reduced pressure from cost push factors with an annual inflation of 76.6%. Therefore, the gap between annual CPI and domestic PPI continued to narrow and reached 21.4pp. The recent natural gas price reduction in industry could enable annual producer prices to decline further in addition to the base effects.

Trend inflation in services and food would prevent a fast deceleration in inflation

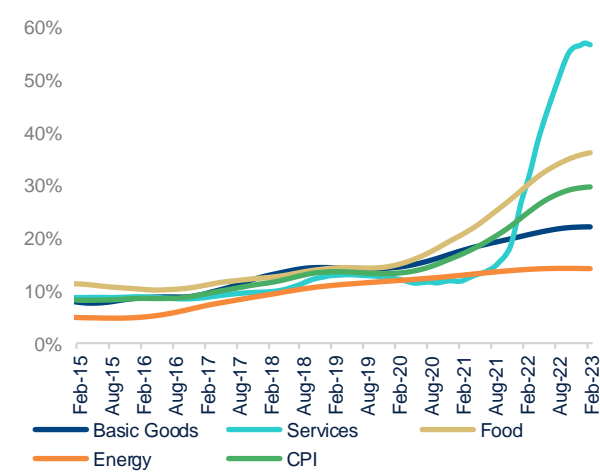
The trend or permanent inflation, excluding seasonal and temporary factors, is crucial to have a clearer picture on the deterioration of inflation. In addition, trend inflation calculations obtained directly from the headline prices could miss the underlying dynamics in prices outlook. Therefore, we calculate the trend of each of the 12 sub-items (2-digits) in the consumer basket with a moving average unobserved component stochastic volatility model¹. Following this, we obtain a permanent inflation rate for the headline inflation by weighting the trends of each sub-item with their corresponding weight in the basket. In Figure 4, we show our results for the trends of sub-items and the overall consumer inflation derived from sub-items. Historically, the high trend in services and food prices seems to prevent serious gains in inflation. However, the main trends in core goods prices and energy prices had a downward impact on inflation in some periods. Our model implies that the permanent inflation has reached 30% in February, but the trends in services and food prices indicate stickiness so that it will not be easy to reduce inflation.

Figure 3. **CPI Forecast Path* (YoY)**



Source: Garanti BBVA Research, Turkstat, *Confidence bands are 50%, 65% and 80%.

Figure 4. **Trend Inflation, YoY**



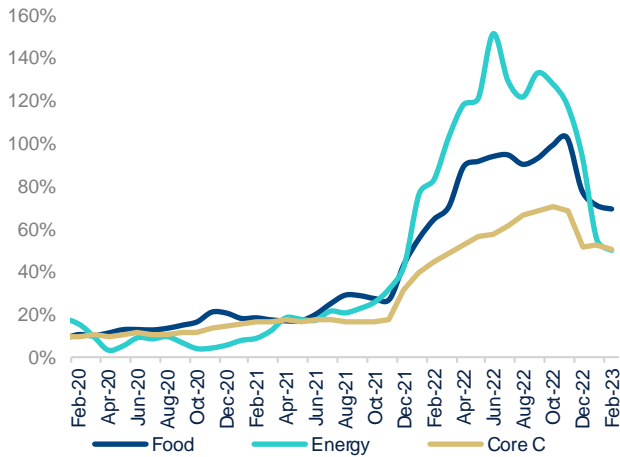
Source: Garanti BBVA Research

Risks tilted to the upside on inflation outlook

As confirmed by our trend estimation in services prices, we expect inertia to remain strong without a clear change in inflation expectations. Second, exchange rate pass-thru stays much higher (above 50%) compared to historical levels. Third, there are supply side risks on food inflation because of both quakes and a potential drought season. Last not but least, cost push factors continue at elevated levels despite some moderation in recent months. All in all, based on our expectations of a gradual depreciation path in currency, consumer inflation will likely remain above 45% till the elections in May. The inflation outlook thereafter will depend on the adjustment in economic policies and the exchange rate, which we expect to be very gradual. In absence of a significant shock in the currency, we expect year end consumer inflation to be 45%. Though, risks remain tilted to the upside.

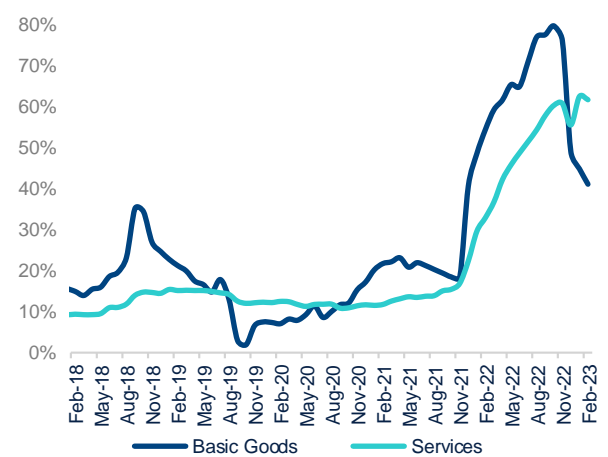
¹ Chan, J. C. (2013). Moving average stochastic volatility models with application to inflation forecast. *Journal of Econometrics*, 176(2), 162-172.

Figure 5. **CPI Main Subcomponents, YoY**



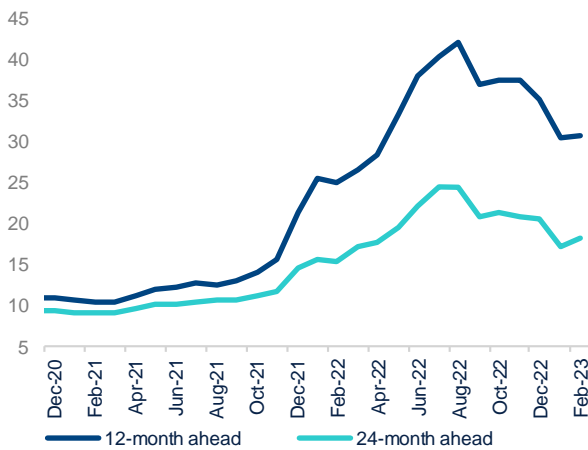
Source: Garanti BBVA Research, TURKSTAT

Figure 6. **Basic Goods and Services Inflation, YoY**



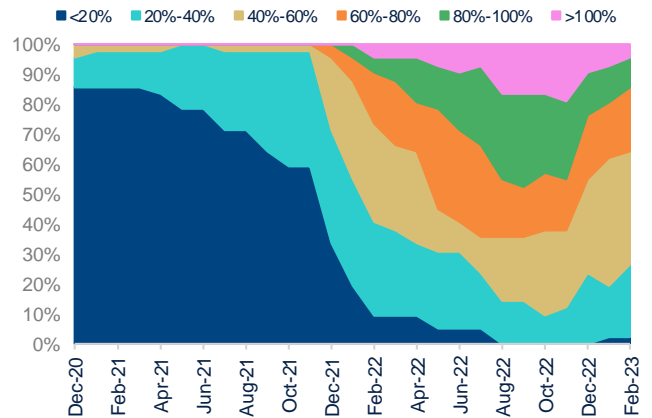
Source: Garanti BBVA Research, TURKSTAT

Figure 7. **Survey Based Inflation Expectations, YoY**



Source: Garanti BBVA Research, TURKSTAT

Figure 8. **CPI Diffusion Analysis, YoY**



Source: Garanti BBVA Research, TURKSTAT

Figure 9. **CPI Subcomponents**

	MoM	YoY
Total	3.15%	55.18%
Food & Non-alcoholic beverages	7.4%	69.3%
Beverage & Tobacco	-0.4%	49.3%
Clothing & Textile	-1.8%	21.7%
Housing	1.3%	55.9%
Household Equipment	1.9%	54.1%
Health	2.1%	70.1%
Transportation	2.6%	44.9%
Communication	0.5%	36.4%
Recreation & Culture	0.9%	47.2%
Education	5.7%	44.1%
Restaurants & Hotels	4.1%	74.3%
Misc. Goods & Services	1.7%	50.4%

Source: Garanti BBVA Research, Turkstat

Figure 10. **Domestic PPI Subcomponents**

	MoM	YoY
Total	1.56%	76.61%
Mining & Quarrying	2.4%	93.9%
Manufacturing	2.6%	65.7%
Food Products	3.6%	98.9%
Textiles	1.0%	47.1%
Wearing Apparel	1.4%	60.2%
Coke & Petroleum Products	-1.5%	45.6%
Chemicals	1.3%	53.3%
Other Non-Metallic Mineral	4.3%	128.7%
Basic Metals	1.1%	29.4%
Metal Products	2.3%	56.5%
Electrical Equipment	6.9%	58.1%
Electricity, Gas, Steam	-6.8%	152.1%

Source: Garanti BBVA Research, Turkstat

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