Quickonomics

September 28, 2021

Three-year twitch no more

Prices of pulses are known to swing capriciously, influencing what ordinary Indians put on their plates. But interestingly, these swings have followed a pattern. CRISIL observed in a 2017 report[1] that inflation in pulses, as measured by the wholesale price index (WPI), shot up every three years. There were four such cycles between 2005 and 2017 (see chart 1).

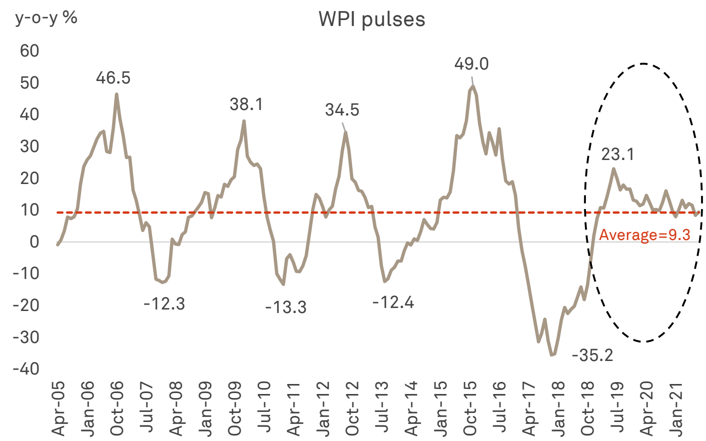
Within each cycle, price changes varied widely. In the last cycle, WPI inflation ranged from 46.2% at its peak in November 2015 to -35.5% at the trough in November 2017.

Delving deeper, we found the price cycles were triggered by negative (under production) and positive (excess production) supply shocks. This has to do with the fact that farmers base their sowing decisions on price expectations pegged to prices observed in the previous season. Low past prices would lead them to under-produce this season and vice versa, triggering a price cyclicality that moves with production over time much in the pattern of a 'cobweb'. This cobweb theory explains how incorrect price signalling affects farmers' sowing decisions, production and profitability.

Going by this trend, the next peak should have occurred in 2019. Well, it did, but the peak inflation was lower compared with past peaks, at 20% in July 2019. Since then, the volatility in inflation has reduced. However, inflation itself continues to average at a stubbornly high level of over 9%. This compares with average WPI inflation at 8.5% over 2005 to 2018.

What gives? Is 9% the 'new normal' for pulses inflation? How does lower volatility yet stubborn inflation augur for farmers and consumers? Read on for answers.

Chart 1: Pulses inflation is far less volatile of late



Source: CEIC, CRISIL

Why has volatility cooled?

1. **Our farmers are producing more:** Production of pulses has increased in the latest inflation cycle (2019-2021) vs the previous one (2015-2017). Annual production[2] rose to 23.6 million tonne (MT), on average, in crop years[3] 2019 to 2021, from 21.6 MT in the preceding three-year period. Between crop years 2006 and 2015, this was only 16.2 MT.

2. **Government procurement is higher:** High government procurement at minimum support prices (MSPs) has worked as an effective price signal for cereals. But procurement has historically been low for pulses. That has changed in recent years. Procurement increased from 7.7% of production in crop year 2017 to 13.6% in 2021. This has lent support to prices of pulses and helped reduce the volatility. The rise in procurement followed the government's move to set up a price stabilisation fund in fiscal 2015 to reduce price volatility in food commodities, including pulses, through building and using buffer stocks. Government spending under this fund rose from Rs 48.5 crore in fiscal 2016 to Rs 996 crore in fiscal 2021.

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[1]For details, refer to Pulses & rhythms: Analysing volatility, cyclicality and cobweb phenomenon in prices (2017)
[2]Includes kharif and rabi crops
[3]Refers to July of one year to June of next year. So crop year 2019 would be July 2018 to June 2019

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3. **Active government intervention in imports:** Pulses imports rose significantly from 18.8% of domestic production in fiscal 2014 to 31% in fiscal 2017, leading domestic prices to slide as supply expanded. To arrest the fall in prices, the government hiked import duties on key pulses from 2017. Duty on gram was raised from 0% earlier to 30% in 2017 and further to 60% in 2018. In addition, quantitative restrictions were imposed on imports of tur, moong and urad in 2017. This tightened domestic supply and raised prices. By fiscal 2021, imports fell to 9.4% of domestic production.

   In the current year, the government reversed some of these measures to reduce pressure on retail inflation. It slashed import duty on lentils to 0% and removed quantitative restrictions on other pulse imports for May-October 2021.

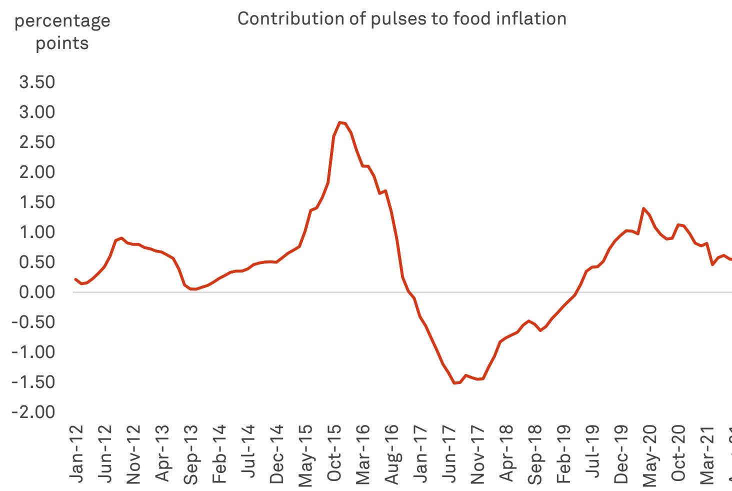
4. **Weather has also influenced supply:** In 2020, kharif harvest was somewhat affected by unseasonal rains in October and November, whereas high temperatures hurt rabi sowing in some key pulses growing areas. This kept prices from slipping too low, though output was healthy for the country as a whole, on account of increase in area under production.

Implications for the consumer

For majority of Indian households, pulses are a key source of protein. In line with WPI inflation, consumer price index-linked, or CPI, inflation for pulses is also settling around the long-term average of 8.8% (from 2007 till present). This implies that pulses continue to remain a key contributor to food inflation for households (see chart 2).

Thus, sustained increase in pulses production remains critical to bring down its share in food inflation over the long run.

Chart 2: But it has stayed stubborn, contributing a high share to retail food inflation the past year



Implications for the farmer

WPI inflation for pulses is settling at ~9%, which is higher than that seen for cereals and vegetables. Nevertheless, stabilisation of pulses inflation aids better price signalling. Consistent increase in government procurement can help smoothen price volatility through cycles of surplus and deficit production, encouraging farmers to increase production over the long run.

CRISIL also observes pulses profitability is on an improving trend. That said, cost of pulses production remains higher than that of cereals. On average, cereals profitability tends to be 3-6 times higher than pulses'. Lower government procurement of the latter also acts as a dampener.

According to the Commission for Agricultural Costs and Prices, while wholesale prices have been above MSP, market prices realised by farmers still remain below it for key pulses. This shows that farmers are still not receiving the full market value of their produce. Government procurement need to be strengthened further and market inefficiencies reduced, to truly incentivise farmers to increase pulses production.

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