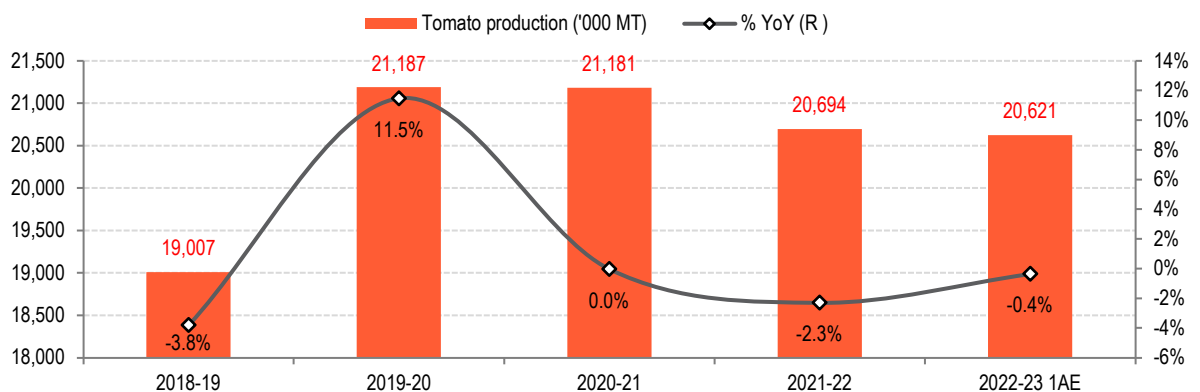


The reason behind spike in tomato prices

Tomato prices are again on a spiral. On sequential basis, the average retail price of tomato went up by 38.5% in Jun'23. On wholesale basis as well, tomato prices rose by 45.3% in the same period. Against this backdrop, we attempt to capture the underlying demand supply dynamics.

- The production data shows that tomato production have moderated by 0.4% from 20,694 ('000 MT) in 2021-22 to 20,621 ('000 MT) as per 1st Advance estimates of 2022-23. State wise data reveal that Madhya Pradesh, Karnataka, Andhra Pradesh, Gujarat and Odisha comprise 51.5% of total production of tomato. *For States such as Gujarat, production has fallen by 23.9%, and for Tamil Nadu and Chhattisgarh drop in production is ~20%.*
- *The Rabi harvest season of tomato is Dec-Jun. Thus that crop might be impacted due to heat wave or erratic rainfall, hence there is a sudden upward blip in prices. But with the Jul-Nov arrival of crop, some easing of the trajectory might be seen.*

Fig 1. Production data of tomato shows moderation in 2022-23



Source: AGRICOOP, Bank of Baroda Research

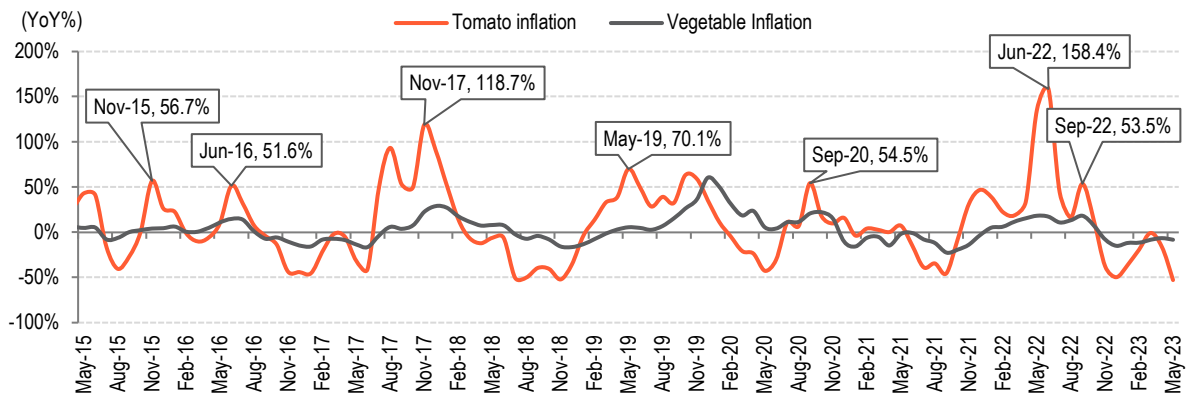
Table 1: State wise picture of production

States	Share in production	Production Growth (YoY)					Status of rainfall
		2018-19	2019-20	2020-21	2021-22	2022-23 1AE	
Madhya Pradesh	13.4%	4.0%	8.8%	9.7%	-8.0%	0.1%	Normal
Karnataka	12.6%	-2.5%	35.0%	-24.2%	1.3%	23.1%	Deficient
Andhra Pradesh	11.3%	-8.8%	12.2%	-12.8%	-6.0%	1.5%	Deficient
Gujarat	7.2%	0.7%	4.4%	11.1%	23.7%	-23.9%	Excess Rainfall
Odisha	7.0%	-0.6%	-7.5%	18.7%	-20.0%	25.2%	Deficient
West Bengal	6.1%	0.2%	0.2%	1.1%	-2.0%	0.0%	Normal
Maharashtra	6.0%	-20.8%	20.8%	14.4%	4.5%	-1.2%	Deficient
Tamil Nadu	5.8%	-8.2%	95.5%	-8.8%	11.7%	-26.1%	Normal
Bihar	5.4%	2.4%	0.0%	20.5%	-13.3%	11.2%	Deficient
Chhattisgarh	4.8%	0.9%	9.2%	-5.0%	8.2%	-19.7%	Normal

Source: AGRICOOP, Bank of Baroda Research, States having notable drop in production have been marked in red

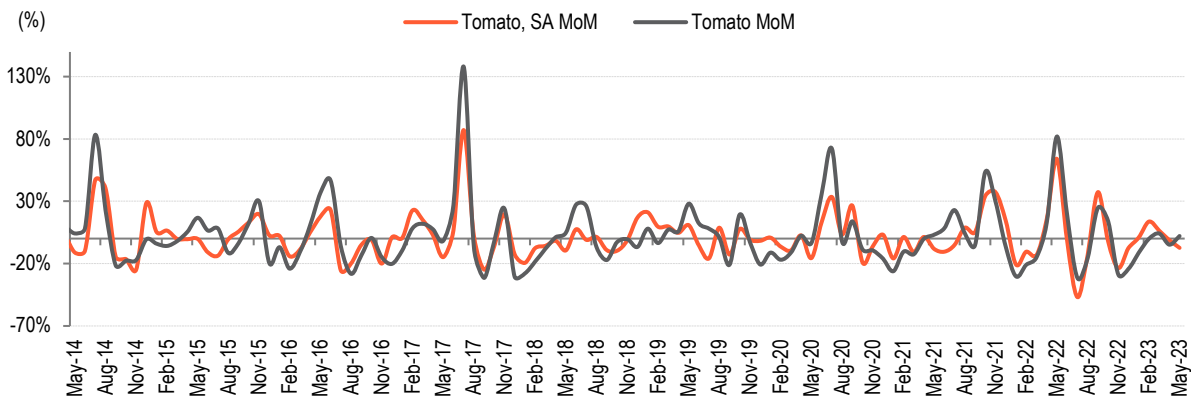
- Analyzing the tomato inflation series in CPI shows that unanticipated price shock has resulted in an upswing in vegetable inflation as seen in **Fig 2**. Further the tomato price spiral is visible in months such as Jun, Sep and Nov; hence there is a seasonal trend (**Fig 3**) in tandem with the harvesting and arrival of the vegetable. *The cycles of price increase are also short lived not exceeding 4-5 months generally*. Hence what comes as a comfort in this case is that, the current upswing may soon see a reversal.

Fig 2. Tomato price shock corroborated with vegetable inflation



Source: AGRICOOP, Bank of Baroda Research, Note: CPI: Tomato has been used

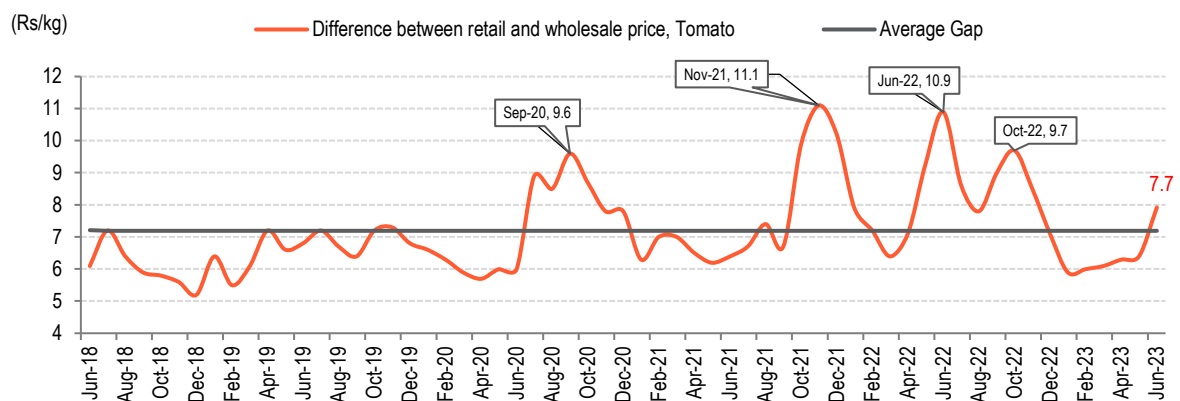
Fig 3. Tomato price shock more of a seasonal phenomenon



Source: CEIC, Bank of Baroda Research, Note: SA: Seasonally Adjusted series of CPI: Tomato

- As per Department of Consumer Affairs data, the average retail price of tomato in Jun'23 is at Rs 32.6/kg, whereas wholesale price is at Rs 24.9/kg. Thus the gap between the two prices in Jun'23 translates to Rs 7.7/kg; higher than the long term gap of Rs 7.2/kg. *Thus with wholesale price increasing, there is a possibility that temporary spike in retail price will happen with ongoing pass through. However this will be a short term phenomenon as price correction to mean reverting level will happen soon, as seen in past periods.*

Fig 4. Gap between two series has increased



Source: Dept. of Consumer Affairs, Bank of Baroda Research

Conclusion:

- The recent spike in tomato (weight: 0.57% in CPI and 0.28% in WPI basket) prices have created quite a bit of uncertainty surrounding the trajectory of food inflation. The supply side story is bit worrisome as well since 2022-23 has seen moderation in production. Especially the major tomato producing States (Gujarat, Tamil Nadu and Chhattisgarh) have seen drop in production. Further erratic rains and heat wave might have impacted the Rabi harvest.
- However, historical data shows that the recent spike is more of a seasonal nature and is generally the case that happens in months such as Jun, Sep and Nov, in tandem with the harvesting and arrival of the vegetable. Even the gap between retail and wholesale price of tomato is above the long run level, and hence some correction to the mean reverting level is expected to happen.
- Our analysis suggests that the cycle of this unanticipated shocks are also short lived (4-5 months generally). Hence with Jul-Nov arrival of crop, correction in prices might be seen in H2FY24.

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