Have Farmers Benefited from High Vegetable Prices in 2013?

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Price spikes in onion in 2010 and 2013 brought little benefit to farmers. It is the big traders who manage to maintain high stocks that make a killing in times of sudden price rise. The government's solutions to such problems have only resulted in the further deterioration of wholesale agricultural markets in many states.

The year 2013 saw price spikes and abnormally high prices for extended periods for potatoes, onions, and tomatoes, the three vegetables of mass consumption that together account for close to half of India's total vegetable production. The prices of other vegetables also remained highly elevated for a large part of the year. The extent to which vegetable prices alone have contributed to inflation can be gauged from the fact that had vegetable prices increased at the same rate as other food, the year on year consumer price index (CPI) (combined) inflation would have been 8.4% in November 2013 instead of 11.2%.

This article looks at the pattern of wholesale and retail prices of vegetables for clues as to who the beneficiaries from price spikes were, with onions serving as the main case study.

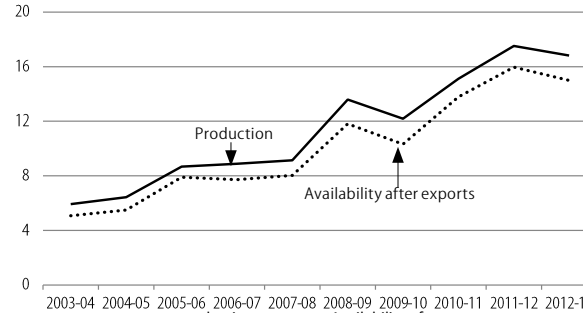
Onion Price Spikes

Some background on the seasonal patterns in production and price of onion is in order. Maharashtra, Madhya Pradesh, and Karnataka, the primary onion-growing states, produce nearly 60% of India's onion. Production is seasonal with the rabi crop harvested from March to May accounting for 60%, and the remaining distributed between the kharif harvest from October to December and the late kharif harvest in the January-March period. The rabi crop is amenable to storage and stored onions take care of the demand till the next harvest. Onions from the kharif crops are not suitable for storage due to their high moisture content.[1]

The pattern of seasonal price changes in onion can be discerned from the historical wholesale price data of the last decade. Onion prices remain low during the rabi harvest and then show a moderate rise till the kharif harvest. In some years, the rising trend continues till the late kharif harvest. The latter behaviour is observed generally in the years when onion production (Figure 1) falls below the previous year's level.[2]

Figure 2 (p 15) shows the modal wholesale prices in the Lasalgaon wholesale market over the last five years. In the heart of the onion-growing region of Maharashtra, Lasalgaon is considered the largest wholesale onion-procuring market in India. The wholesale prices in Lasalgaon are indicative of the prices paid to farmers during the harvest season.[4] The highest wholesale price at any time of the year in the last decade with the exception of 2010 and 2013 has been under Rs 1,500 a quintal.

Figure 1: Onion Production and Internal Availability after Exports



Source: National Horticulture Research and Development Foundation (NHRDF) database.[3]

The 2010 price spike was attributed to the kharif crop in some areas getting affected by untimely rains.[5] Curiously, overall onion production in 2010-11 was 2.9 million MT higher than the previous year and exports were lower at 1.3 million MT compared to the two preceding years. It seems that the shortage in availability of onions, if there was indeed one, could only have been temporary.

The last year (2013) had a lower rabi harvest and by June it was clear to traders that their stocks were insufficient to last till October.[6] However, the government made no effort to intervene. In September, the Union Agriculture Minister Sharad Pawar stated that "when farmers are getting more money for their produce, we should not complain".[7] We will return to Pawar's comment later. There are some common characteristics

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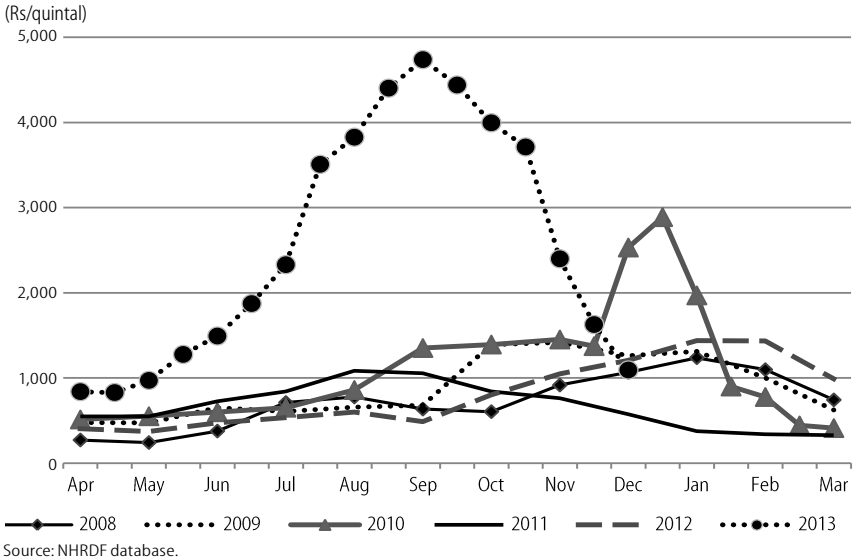
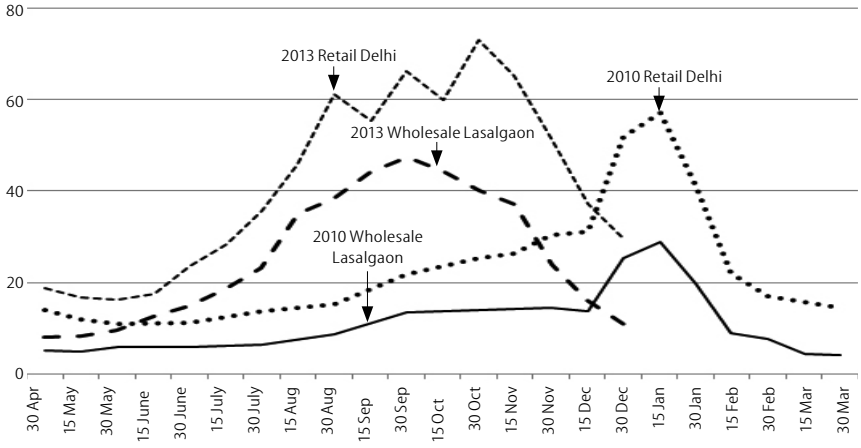
Figure 2: Onion Modal Wholesale Prices, Lasalgaon Wholesale Market



Source: NHRDF database.

Figure 3: Onion Retail and Wholesale Prices during Spikes



Source: Wholesale prices - NHRDF database; retail prices – department of consumer affairs.[14]

of these two abnormal price events that are worth noting. First, they both occurred between two harvests. The 2010 spike occurred towards the end of the kharif harvest and subsided with the late kharif harvest. The 2013 price rise was longer lasting, starting after the rabi harvest and subsiding with the kharif harvest.

Since most onion farmers are small farmers and lack the ability to store their produce, they do not benefit from the price rise that happens between the main harvests.[8] The only exceptions are farmers in secondary onion-growing areas who may have a different harvest timetable.

Second, when prices start falling on the next harvest after a spike, they fall excessively. In 2010, prices fell below 2009 and 2008 levels; in 2013, as of December, prices were already below 2012 levels and were heading down. This means that farmers suffer lower than usual prices when they bring harvests to the market after a spike. In December 2013, wholesale prices collapsed to Rs 7 a kg in some markets in the Nashik region. The government revised the minimum export price of onion downwards to $150 a tonne from $1,150 a tonne a couple of months earlier after the farmers' protests.[9]

The negative impact on farmers can extend into several seasons. After the spike of 2010, farmers responded with increased production on higher acreage in 2011, and the result was that wholesale prices in the harvest seasons remained in the range of Rs 3.30/kg to Rs 8.50/kg. The crash in prices caused severe distress to onion farmers.[10]

It is likely that this story will repeat itself in 2014; farmers have increased the acreage under onion this year and bumper kharif harvests are expected.[11] Clearly Pawar was off the mark when he suggested that farmers benefit from price spikes – or perhaps he had in mind only the big farmers.

Horticultural Supply Chain

While farmers do not have storage, there is storage capacity in the onion supply chain with the big wholesale traders and this comes into play every year between the rabi harvest and the kharif harvest five months later.[12] Traders build up their stocks from the rabi crop and then release them at higher prices in the retail market in the lean months, and this accounts for the normal seasonal price rise in the onion market. When there is a spike in wholesale prices between harvests, the benefits from this accrue almost entirely to the traders who have stored onions. However, this is only a partial picture of the profiteering from price spikes.

Figure 3 shows both retail and wholesale prices of onion in 2010 and 2013, showing the wide gap between the two sets of prices. The retail prices pertain to Delhi. It must be noted that these retail prices published by the department of consumer affairs (DCA) are somewhat lower than the prices newspapers report or people experience themselves.[13] Before analysing the price spikes further, it is useful to recall the key elements of the vegetable supply chain.

Horticultural produce typically traverses two or more wholesale agricultural markets (*mandis*) in its journey from the farm to the urban customer. The farmer sells his produce at a local assembling market – such as Lasalgaon near Nashik for onions – through a commission agent who finds him a wholesale buyer. He often goes through a village-level agent to transport and sell his produce at the mandi.

The wholesale trader transports and sells his produce at the terminal mandi, typically located at urban consumption centres – such as Azadpur *sabji* (vegetable) mandi in Delhi – through a local commission agent. The final leg of the supply chain is the sale of the produce by wholesale traders at the terminal mandi to small retailers – often intermediated by unlicensed sub-wholesalers like the *mashakhors* of Delhi – who make the produce available near the consumers' homes.

Most states have slightly differing versions of a law on agricultural produce marketing (commonly referred to as the Agricultural Produce Market Committee Act) originating in the colonial period that lays out this supply chain.[15] Every player in the chain adds to the cost to the consumer. So besides the legitimate grading, packaging, and transport costs, there are the marketing fees (collected by the government) paid at each mandi the produce traverses, as well as the commissions of the commission agents and the margins of the wholesalers.

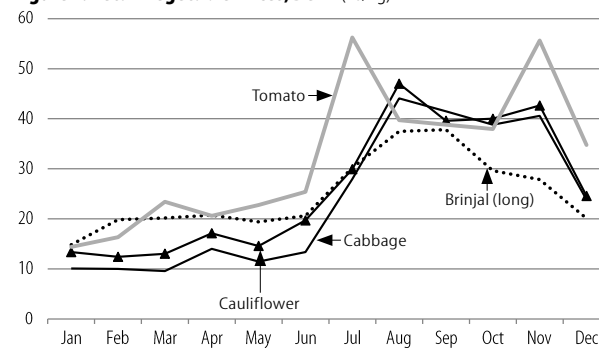
Returning to Figure 3, one can see the effects of the onerous supply chain in the large mark up of retail prices over the wholesale price. In May 2013, for example, while the wholesale price was below Rs 10 kg, the retail price was above Rs 16 kg, a mark up of Rs 6 kg. This is about the minimum overhead that a customer in Delhi must pay over the wholesale price in an onion-procuring market.

However, the overheads increase dramatically during a price spike. In 2010, the peak mark-up was Rs 28 kg; in the 2013 spike the mark-up reached Rs 33 kg. Retail margin is perhaps a misnomer for this mark-up. Anecdotal evidence suggests that the lion's share of this mark-up is taken by the mashakhors and licensed traders.[16]

A study of onion markets commissioned by the Competition Commission of India (CCI) and carried out by the Institute for Social and Economic Change, Bangalore throws light on how traders can control prices (Chengappa, Manjunatha, Dimble and Shah 2012). The study focuses on the main onion assembling mandis of Karnataka and Maharashtra. Some of the observations of the study pertinent to this discussion follow.

The governing bodies of mandis are largely dominated by traders. Mandi officials, public servants though they are, do not enforce market rules. Mandi transaction records, the key to understanding pricing, are not transparent. Commission agents and traders are well entrenched in the mandis, having been in the business on average for 20 years. Further, the big traders in the assembling mandis are well connected with traders in other markets.

Figure 4: Retail Vegetable Prices, Delhi (Rs/kg)



Source: Tomato prices – DCA; other vegetable prices – National Horticulture Board (NHB).[17]

Given the above, it is hardly surprising that there is no transparency in the price paid to the farmer or the movement and storage of onions in the supply chain.

Other Vegetables

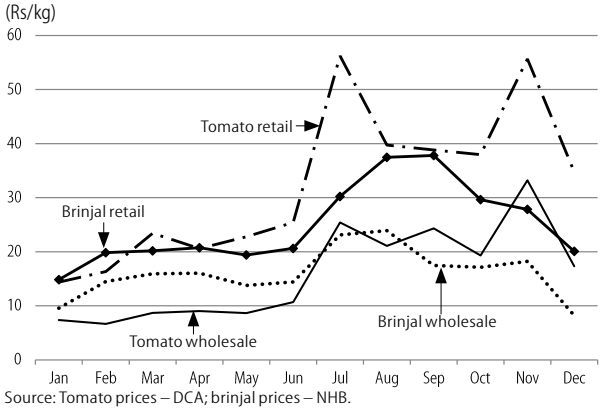
The price spike in potatoes in October-November 2013 is amenable to an analysis similar to that of onion. After potato, tomato and onion, the next four most produced vegetables are brinjal, tapioca, cabbage and cauliflower.

Figure 4 shows the retail prices of tomato, brinjal, cabbage and cauliflower in Delhi for 2013 (tapioca has been left out as it is consumed only in a few areas). All these vegetables show steeply elevated prices between July and

December. A significant part of the production of these vegetables is from the eastern seaboard states and the cyclone and unseasonal rains have been blamed for high prices.

Figure 5 shows how the retail margins have increased for tomatoes and brinjal in Delhi during the period of elevated prices. Cabbage and cauliflower also show a similar pattern. Once again the hefty retail margins point to the traders making a killing from a possible shortfall in the produce.

Figure 5: Retail Margins on Vegetables, Delhi



Source: Tomato prices – DCA; brinjal prices – NHB.

Concluding Remarks

Circumstantial evidence clearly points to traders being the main beneficiaries of the elevated prices of vegetables over an extended period this year. The trigger for rising prices can be varied – a lower harvest, an unexpected rise in demand, damage to standing crops, or even delayed sowing. Most farmers – lacking the ability to store produce – would not have gained as prices remained low in the harvest period. Besides, a large portion of the price extracted from the consumer is the retail mark-up – wholly unavailable to the farmer.

Not only have farmers not gained from the elevated prices in 2013; after having responded to high prices with higher acreage and production, they will face unremunerative wholesale prices in the first half of 2014. The trend was already evident in December 2013 and January 2014.

> The vegetable supply chain is crying out for reform. The government is well aware of what ails the supply chain, as the quote below shows.
>
> If farmers get paid Rs 10 per kg, while the consumers pay anywhere between Rs 80-100 per kg of onion, there is obviously something seriously wrong in the way onion market operates ... we know that there are governance issues related to licensing of wholesalers, issues related to holding capacity of farmers, issues related to market prices information and a number of issues related to the whole supply chain which creates the kind of pricing contradiction.

That was the Minister of State for Agriculture Tariq Anwar speaking in November 2013.[18]

Giving the excuse that agricultural marketing is a state subject, the central government has been content to pass the buck to state governments, who in turn have pointed the finger at other states. The Congress Party has finally realised that the vegetable price inflation is hurting it the most at present. It has proposed a quick fix for Congress-ruled states – removing vegetables and fruits from the ambit of the APMC Act so that farmers have "choice" on where to sell their produce. Uttarakhand has already effected this change.[19] Will this allow farmers to get higher prices and reduce prices for consumers?

The experience of Bihar which scrapped the APMC Act altogether without providing any alternative markets to farmers, speaks otherwise. The old APMC mandis have become decrepit, new ones have not come up, and farmers sell their produce to agents in the village.[20] Instead of providing false choices to farmers, the state needs to take the responsibility for running the wholesale mandis in the interests of farmers and consumers.

NOTES

1 "Baseline Data for Potato and Onion, April 2012" produced by the Small Farmers Agri-business Consortium (SFAC) and available at http://sfacindia.com provides details of seasons and seasonal production. Small quantities are harvested in the secondary onion-producing areas even in other months.

2 These observations are based on modal wholesale price data for Lasalgaon market available on the NHRDF website (see also note 4).

3 Data available at the NHRDF website, www.nhrdf.com

4 The daily wholesale prices made public by the wholesale markets are a minimum price, maximum price, and modal price. The modal price is supposed to represent the most frequent price of transactions. It is not clear how this figure is arrived at and the markets do not provide details of how many transactions occur at each price. A large number of farmers actually realise less than the modal price for their produce in the harvest season. In between harvests, the prices pertain to transactions in stored onions.

5 "Sharp Rise in Onion Prices due to Hoarding", *Economic Times*, 21 December 2010.

6 SFAC's onion and potato monthly report, July 2013.

7 "Forget Onions, Even Scams Don't Make Some Ministers Teary", *Economic Times*, 19 September 2013.

8 The study by Chengappa, Manjunatha, Dimble and Shah (2012) covering the onion-growing areas in Karnataka and Maharashtra places the average size of onion farms at just above an acre.

9 "Nashik: Wholesale Onion Price Crashes to Rs 7 per kg, Farmers Protest", IBNLive.com, 13 December 2013.

10 "Onion Farmer Attempts Suicide due to Dropping Prices", Vaishali Balajiwale, *DNA*, 27 December 2011.

11 See various issues of the NHRDF newsletter; and "A Brief Report on Onion Availability and Price Trend" at https://www.facebook.com/nhrdf.nasik

12 NHRDF tracks the stored onion in its periodic newsletter.

13 See, for example, "Onion Back at Rs 80 kg in Delhi", *Business Line*, 21 October 2013. The prices reported by the DCA for the week ending 21 October were in the range of Rs 60 to Rs 69.

14 DCA website, http://consumeraffairs.nic.in

15 The law provides for agricultural produce marketing committees (APMCs) to govern the mandis, hence the APMC act. It is often mistakenly presumed that the APMC acts were enacted by the states in the "socialist" period of the 1960s; they had precursors in acts such as The Bombay Agricultural Produce Markets Act, 1939 and the Madras Commercial Crops Markets Act 1933.

16 This comment is based on the author's conversations with push cart and pavement vegetable retailers in Delhi.

17 This data is from the National Horticulture Board website, www.nhb.gov.in

18 "Governance Deficit Pushing Onion Prices Upwards: MoS for Agriculture Tariq Anwar", *Economic Times*, 8 November 2013.

19 "Uttarakhand to Lift Market Levy on Fruit, Vegetables", Sanjay Singh, *The Indian Express*, 1 January 2014.

20 Noted in the report "Investment in Agricultural Marketing and Market Infrastructure – A Case Study of Bihar" by the National Institute of Agricultural Marketing, Jaipur, available at www.ccsniam.gov.in

REFERENCE

Chengappa, P G, A V Manjunatha, Vikas Dimble and Khalil Shah (2012): "Competitive Assessment of Onion Markets in India", Institute for Economic and Social Change, Bangalore, available at the Competition Commission of India website, http://www.cci.gov.in/