Lessons not learnt: Onion prices

ABSTRACT

This paper looks at the phenomenon of sharp spikes in onion prices almost every alternate year. The paper shows that acreage and production of onions have increased over years, thus there seems to be no problem of supply shortages. The shortages are created by some weather event, which leads to onion shortages that do not last for more than 3-4 months. To get over this problem, government usually resorts to instant export bans, jacking up of minimum export price and strict implementation of storage limits. The paper shows that this hurts India's exports. It gives some recommendations to deal with the situation better.

Key words: onion crisis, onion demand and supply, government policies for onion, onion exports.

Introduction

Onion prices are politically very delicate issue: governments come under tremendous pressure when onion prices soar. It is a factor that can even make a government fall.

And yet, by now, this cycle has become familiar to any casual observer of the market: Some weather related event affects onion supply, prices go through the roof – mainly between September and January – government blames hoarding and imposes strict limits on storage and exports. At times, onions are imported, with little impact (there too, we have not learnt any lesson). Then with arrival of new harvest, prices get back to normal.Nothing more is thought/done about it once the prices come back to normal. As a result, we go through this cycle almost every alternate year.

Prices also crash in onion markets often. Then farmers protest, government gives some support and eases export restrictions. Then prices become normal. Then again excessive rains/drought affect the crop and the cycle starts again.

The onion production cycle:

Onions are grown in both kharif and rabi seasons in India. The rabi crop gives 60 per cent of the total supply. It is harvested between March and July. Main supplies come between April and May. The onion prices are usually the lowest in these months. Even when there is lesser supply, the supply is usually enough to last till at least June-July.

The kharif crop comes in October-November. But it provides lesser supplies than the rabi season. It is noticed that the highest spike in prices usually takes place between July and September. The situation eases with the kharif harvest coming in October-November. If monsoon gets delayed and sowing season starts late, the price hike can remain till October-November. But usually the spike in prices last only for a few months and that is between July and September.

Can't we plan for just 3-4 months of shortage? To understand the answer to this question, we need to look at the onion market: its demand and supply, acreage cultivated and exports.

Production trends in Onion

Table 1: Area, Production and Yield (2006-07 to 2017-18)

Area in '000 Hectares, Production in '000 MT and yield MT/Ha

	Area	Production	Yield*
2006-07	767.9	10847.4	14.1
2007-08	821	13900.4	16.9
2008-09	834.2	13564.5	16.3
2009-10	756.2	12158.8	16.1
2010-11	1063.8	15117.7	14.2
2011-12	1087.2	17511.1	16.1
2012-13	1051.5	16813	16
2013-14	1203.6	19401.7	16.1
2014-15	1173.35	18927.41	16.13
2015-16	1320.4	20931.21	15.86
2016-17	1305.62	22427.42	17.18
2017-18	1284.99	23262.33	18.1

Source: Ministry of Agriculture and Farmers' Welfare, Government of India

The semi log regression results show that the area under onions has been statistically significantly (R^2 = 0.867 and t statistic = 8.08) increasing at the rate of 2.36 percent per year between 2006-07 and 2017-18. Similarly, production during the same period rose significantly (R^2 = 0.92 and t statistic = 10.68) at the rate of 2.08 per cent. There has been no significant growth in the yields, as both R^2 and t statistics are insignificant for the regression equation. But overall, onion supplies have been increasing over the years mainly because of the increase in acreage.

In 2018, it was estimated that the country produced about 23.5 million tonnes, but consumed only about 14 million tonnes (Bhosale, 2019). India produces more than it can consume. Also, as shown above, if the supplies have been rising over the years, how is it possible that the prices spiked so much? The answer lies in the introduction given above. The problem is not total supply in the year, the problem is shortage during some months in case weather goes wrong in kharif or rabi. As the new harvest comes along, the pressure on prices eases out. The prices remain high only for 3-4 months.

Are the wholesalers the culprits?

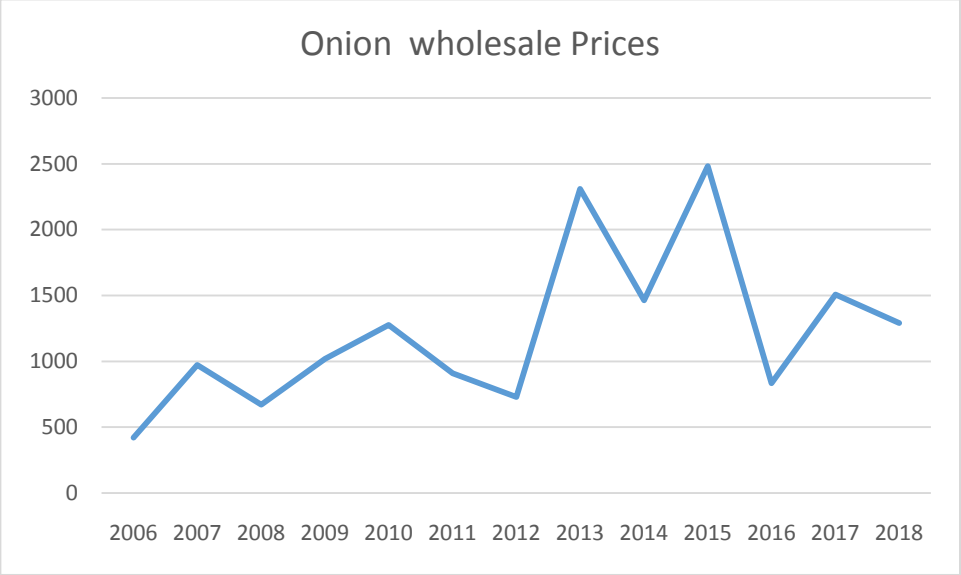

Figure 1: Onion Wholesale prices (yearly average 2006-2018)

Source: Ministry of Agriculture and Farmers' Welfare, Government of India

In last ten years, onion prices spiked to about Rs. 50 and higher in 5 years. Almost every alternate year, the prices shoot up.

Between 2010-12, area under onions increased. Production also increased significantly. Such increase in production must have led to a fall in prices, that is depicted in the graph above (figure 1). The strange thing happens in the next year. In 2013, inspite of increase in acreage and production, prices spiked. Acreage and production decreased in 2014 and yet prices decreased. In 2015, both acreage and production went up and the prices also spiked again. Both productivity and production increased in 2017, and yet prices spiked. We find little correlation between prices and onion production. The explanation, as discussed above, lies in sudden spike in prices for a period of 3-5 months. Things get back to normal after that. The actual onion supplies have not decreased much during last 10 years.

The wholesale prices have been fluctuating a lot but the average increase is almost 31% per year. The cost of inputs has been rising, resulting in higher prices of onions over the years. If we examine the retail prices, the average increase is little less at 20% per year. Thus, increase is higher in wholesale prices although retail prices also peaked to almost 70 Rs. in some years. As can be seen from figures 1 and 2, the shapes of the curves are very similar. The paired t-test shows that the two series do not have statistically significant different pattern. They seem to be moving in a similar manner. Thus the retailers and wholesalers both seem to be taking advantage of the shortages in supply and must be profiting. The farmers, on the contrary, always lose because when they enter the market with their harvest, the prices fall.

We feel that the most important factor for triggering abnormal hike in prices is production fluctuations generally caused by weather. The government (and some studies too) feels that this situation is further aggravated by a section of greedy wholesalers and retailers, who hoard the onion stocks and hike up the prices.

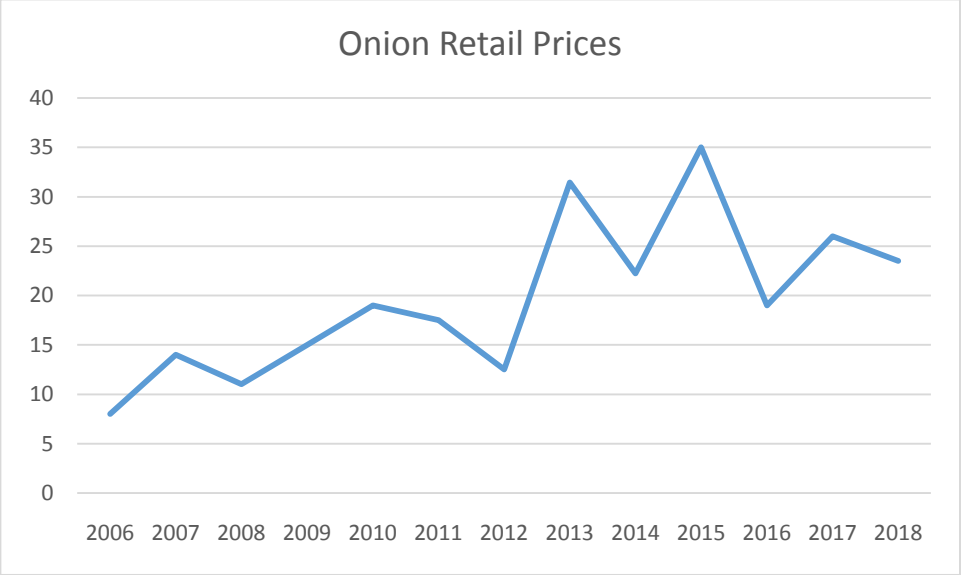

Figure 2: Onion retails prices (yearly average 2006-2018)

Source: Ministry of Agriculture and Farmers' Welfare, Government of India

Past price trends show a clear pattern in price spikes. High prices rule only for a few months. This implies that excessive volatility in prices can be managed through appropriate mechanisms. The most important factor for triggering abnormal hike in prices is production shock generally caused by weather. This situation is further aggravated by some wholesalers and retailers who hoard the onion stocks and hike the prices.

The country experienced annual growth rate of above 13% in onion production during the last 13 years since 2000-01. No other food crop in India shows this type of spectacular growth in the recent years (Ramesh Chand, blog). There is no need for India to ban its onion exports and make the farmers suffer.

Onion exports and farmers:

Table 2: Onion exports in last five years:

Year	Value in US $ million	% change
2014	320.6	
2015	411.5	28.35%
2016	364.0	-11.54
2017	416.9	14.53
2018	408.8	-0.019
2019	364.7	-10.78

Source: APEDA agri exchange

As mentioned earlier, India generally produces more onions than its domestic demand - Almost 10 million tonnes more. Indian onions have spicy and have a strong flavour that is relished in

middle east, far east, Srilanka and Bangladesh. Indian onions are highly in demand in these nations. However, the policies of Indian government have been hurting onion exports.

Table 1 shows that the production of onions increased between 2013-14 and 2017-18. The export figures above seem to have no correlation with the increases in production. This shows that something seems to be going wrong somewhere between supplies and exports. Let us understand how.

As soon as the onion prices start rising, the government puts a ban on onion exports. Such knee jerk reaction leads to unreliable export supplies. As onion prices in India go up, because of the export prohibitions, onion prices in the importing nations also go up. Sudden jump in minimum export prices also makes it difficult to honourthe purchase contracts. The traders cannot go by their past contracts or if they do, they make huge losses. Such unvertainties in onion exports supply and export prices have not been taken kindly by India's traditional importers and many nations have turned to Pakistan, China and Egypt for onion imports. The government policies have been hurting the exports.

The prices offered to farmers used to remain on an average little higher in wholesale markets because of the guaranteed exports. Because of the knee jerk reactions by the Indian government regarding onion exports, the farmers tend to get lesser prices from the wholesalers, since the wholesalers are not sure whether they will be able to export. There is no MSP for onions so the farmer has no safety nets to fall back on.

During onion price hike periods, government imposes strict stock limit on retail (10 tonnes) and wholesale traders (50 tonnes). This is done to prevent cartelization and hoarding. Unfortunately, the limits are not taken off as soon as the harvest season arrives. Thus when the farmer enters the market with her produce, she often finds no buyers because of the stock limits. The onion quality starts deteriorating and as the supplies go bad, the farmer gets even lower prices.

This entire chaos happens because for onion markets, the government looks mainly at the consumers of onionsrather than the producers. The welfare of the farmers is not thought about at all. The worst part is, this happens almost every alternate year and Indian policy makers have still not learnt their lessons or defined their priorities rightly.

How should the government intervention be?

The government should stock some onions in its godowns to meet the temporary 3-4 months' onion shortage. This would enable it to fix procurement prices, that would act as a reasonable base price for the farmers who often have to sell their onions at Rs. 3 to Rs. 7 per kg when the cost of production is Rs. 8. And the exports would not get affected. Nor would there be a need to urgently import onions. The government stocks would ensure stability in the market. Traders say that all that the government needs to stock is 1,50,000 to 2 lakh metric tonnes of onions. This would bring about desired stability in the onion market. There would be no periodic shortages and price spikes.

The government indeed took a step in this direction and asked NAFED to stock onions to iron out these fluctuations. However, in 2019 NAFED bought mere 56,700 million tonnes, just 0.55 of the total onion production for the season. Even these were not managed well: only 18000 tonnes were sold and the remaining 38,700 million tonnes either rotted or would rot since the new harvesting season was already close by (cogenesis, 2019). The management of stored onions has to improve. Just as Delhi Government had successfully done in 2015, onions can be offered

in the ration shops or mobile vans by the government. When the whole of India was paying 80 Rs per kilo for onions, the price of onions was Rs 30 per kilo in Delhi shops.

The other solution is to provide cold storages. At present, about 35 to 40 percent of the onions produced get rot. This is an inexcusable loss. An investment in cold storage would not only help onions storage but storage of other vegetables too. The government should not rely on private players only for establishing these key components of onion supply chain but actively invest from its side. The prevention of wastage of 40% onion production will lead to sure increase in both export and national incomes.

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