

Sweetening the Deal? Political Connections and Sugar Mills in India

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Overview

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- ▶ Connection between firms and politicians
 - ▶ Potential Consequences:
 1. Benefit to Firms
 2. Benefit to Politicians
- ▶ Study of connections between Politicians and Sugar Mills in Maharashtra
- ▶ Study of total 183 mills out of which 101 had current chairman who competed for state or national elections between 1993-2005.

1. Sugar Politics in Maharashtra

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- ▶ 45% of state's rural population dependant on this sector for their livelihood
- ▶ Sugarcane is the primary cash crop in the state, taking upto 24% of all irrigated land
- ▶ Sugarcane farmers are relatively rich compared to other farmers as well as average voters in rural areas

1A. The sugar Industry and Cooperatives

- ▶ A typical cooperatives consists of about 20,000 farmer
- ▶ Cooperative consists of Chairman, Secretary, Treasurer, along with a Board of Directors, all of whom are elected every 4 or 5 years
- ▶ There are total 185 sugar mills out of which 90% are cooperatives
- ▶ Share of the farmer is proportional to the amount of land they own
- ▶ It also entitles a farmer to sell a specified amount of cane to mill, and obliges the mill to buy that amount of cane
- ▶ Farmers who have land in a particular area can only sell cane to the assigned mill in that region

1B. Politicians, Elections and Control of Sugar Mills

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- ▶ Chairman Candidates fall in 2 groups:
 1. Large farmers and Landlords
 2. Existing Politicians
- ▶ Cost of getting a party ticket
- ▶ Funds required for contesting elections, campaigning, bringing rural votes to the polls, and sometimes direct vote-buying
- ▶ Once elected, legislators can access state resources via both licit and illicit means

1C. Sugar Production Function

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- ▶ Sugar Production is 2 stage process:
 1. Planting and growing sugarcane
 2. Harvesting and transporting it to the factory
- ▶ Harvested cane is crushed to extract sucrose-rich juice (determines the quality), which is boiled and refined using lime and sulphur to produce sugar crystals
- ▶ Crushing season runs from November through April/May
- ▶ Once harvested, it must be crushed within 24 hours to prevent drying, so mills need to coordinate process

1 D. Mill Revenues and Cane Prices

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- ▶ Mill can sell up to 90% of output on the open markets and the rest must be sold to the government at reduced rates
- ▶ Each mill pays its farmers a single price per metric tonne of cane every year, based on weight (not on the quality)
- ▶ Any excess revenue over cost is returned to farmers as higher price for cane or invested in “public goods”

2. Data and Empirical Strategy

2A. Data

- ▶ Data set consists of:
 1. Annual data on individual mill outcomes, inputs, and operations (1963-2005)
 2. Annual data on state, national, and world sugar industry indicators
 3. Monthly rainfall
 4. State and national election dates, candidates, and results(1993 onwards)
 5. Mill chairman names
 6. Satellite images of sugar-growing region
- ▶ First year is usually trial basis, so that is not considered during analysis
- ▶ Also, “non-starter” seasons, during which the mill is open for only a few days and almost no can is crushed, is excluded
- ▶ Usually, politically connected mills are larger than (average capacity of 2629 tons crushed per year) than private mills (average capacity of 2139 tons crushed per year)

2B. Empirical Strategy

- ▶ Definition of Politically Connected mills
- ▶ “Election year“ for this paper corresponds to the sugar year (Nov-Oct) during which election took place

3. Results

3A. The cost of Political Connections

- ▶ Prices are lower by about Rs. 20 a ton in politically controlled mills during election years
- ▶ The results are robust to including rainfall and mill capacity as controls, as well as including mill-specific outcomes such as the recovery rate - sugar produced per unit cane, a measure of productivity - as well as various other mill level shocks such as mill breakdowns and cane shortages
- ▶ Price fall may be due to mill closure, i.e. mill is not operating profitably, but politicians has kept mill open as a way to garner votes. But analysis shows that mill closure is not affected by political control
- ▶ Paying farmers Rs. 20 per ton less for their cane amounts to a total of Rs. 6 million

3B. Producing Drop or embezzlement

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- ▶ Use of mill workers and vehicles for campaigning
- ▶ Recovery rate goes low during elections, but this is not robust with the rainfall and capacity
- ▶ Drop in productivity due to machine breakdowns and cane shortages, shortages in mill inputs (cane, lime, sulphur)
- ▶ Study of satellite images by author(2003-2005) to confirm the amount of cane planted
- ▶ Money spent on elections

4. Theft or Campaign Contribution?

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- ▶ Why farmers still elect the chairman, who pays the low price?
- ▶ Even if a mill executive is not contesting external elections, it is possible that the mill contributes to political campaigns, and might receive compensation if the party goes on to form the government
- ▶ Mills whose chairmen won national elections pay Rs. 80 per ton more in the year after elections
- ▶ On the other hand, mills whose chairmen lost national elections, on the other hand, pay slightly lower than average prices in the year after election
- ▶ Chairmen who win national elections seem to be able to keep their mills open far more successfully than chairmen who lose
- ▶ Author finds that when the party affiliated with the mill chairmen is in power in Maharashtra, the mill pays Rs. 23 more in cane price

4. Theft or Campaign Contribution?

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- ▶ Why sugar mills?
 - ▶ Legal campaign financial limits
 - ▶ Expropriating from mill funds solves the collective action problem
- ▶ Kisan (a cooperative mill) funded Rs. 50000 for Congress party fund by collecting 50 paisa per tonne around 1980s, but no such contribution is seen by author here
- ▶ Why farmers do not oppose this?
- ▶ With average probability $\frac{1}{3}$ of winning election, on an average farmer gets Rs. 27 on their principal of Rs. 20, so still in profit.

5. Conclusion

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- ▶ The cane price falls by approximately Rs. 20 in politically controlled mills during election years. These drops translate to an economically significant drop in revenues of Rs. 6 million per election year per mill
- ▶ The overall effect on farmer welfare is difficult to determine. On average, cane prices and recovery rates in politically connected mills are no different than those in non-politically connected mills, and the levels of public goods are no different either
- ▶ It is possible that there are costs and benefits not captured in the outcomes that author has considered