The rocky road to market equilibrium - Price regulation and entry liberalization in Portuguese retail pharmacy

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Motivation

- In 2005, the Portuguese Competition Authority (CA) analysed the economic situation of the operating retail pharmacies
- Main conclusion: existence of room to decrease pharmaceutical prices

Motivation

- Since then:
  - 2005, 2007: price decrease of 6%
  - 2007: Generics cap of 65% of originator price
  - 2007: Pharmacies' margins decrease from 19.75% to 18.25%
  - 2008: Generics (above 5€) price decrease of 30%
  - 2010: Pharmacies' margins increase to 20%
  - 2012: Generics cap of 50% of originator price
  - 2012: Pharmacies' margins: regressive % price + Fee

What now?

- CA used information up to 2002, now the context may be very different.
- Are today's pharmacies still able to cope with all the decreases in prices that were taken?
- Our objective: assess the economic sustainability of the Portuguese retail pharmacies

Methods

- Analyse the evolution between 2002 and 2010
- Replicate CA as close as possible:
  - If we use the same model, differences in results should reflect the updated economic context.
- Data:

CA – 2005	This paper
- Data from 2002 - 70 pharmacies	- Data from 2010 - 1,346 pharmacies

Methods

- Cost function estimation
- Same model as CA, Linear cost function

$$TC = FC + cQ + a(FA \times Q)$$

- Three different approaches:
  - OLS, for the average pharmacy
  - Sthocastic Frontier Analysis
  - Quantile regression

} For the most efficient pharmacy

Methods

- Important: Unexpected costs and those related to financing (interest) are not used in our analysis.
  - Our results are independent of wrong decisionmaking
  - They reflect the intrinsic economic environment of today's pharmacy activity.

Methods

- Important: Our notion of quantity, Q, is obtained through the division between total sales and the average price of a prescription.
- It includes other products (OTCs and health products)
- Estimated marginal cost is not of pharmaceuticals alone.

Results

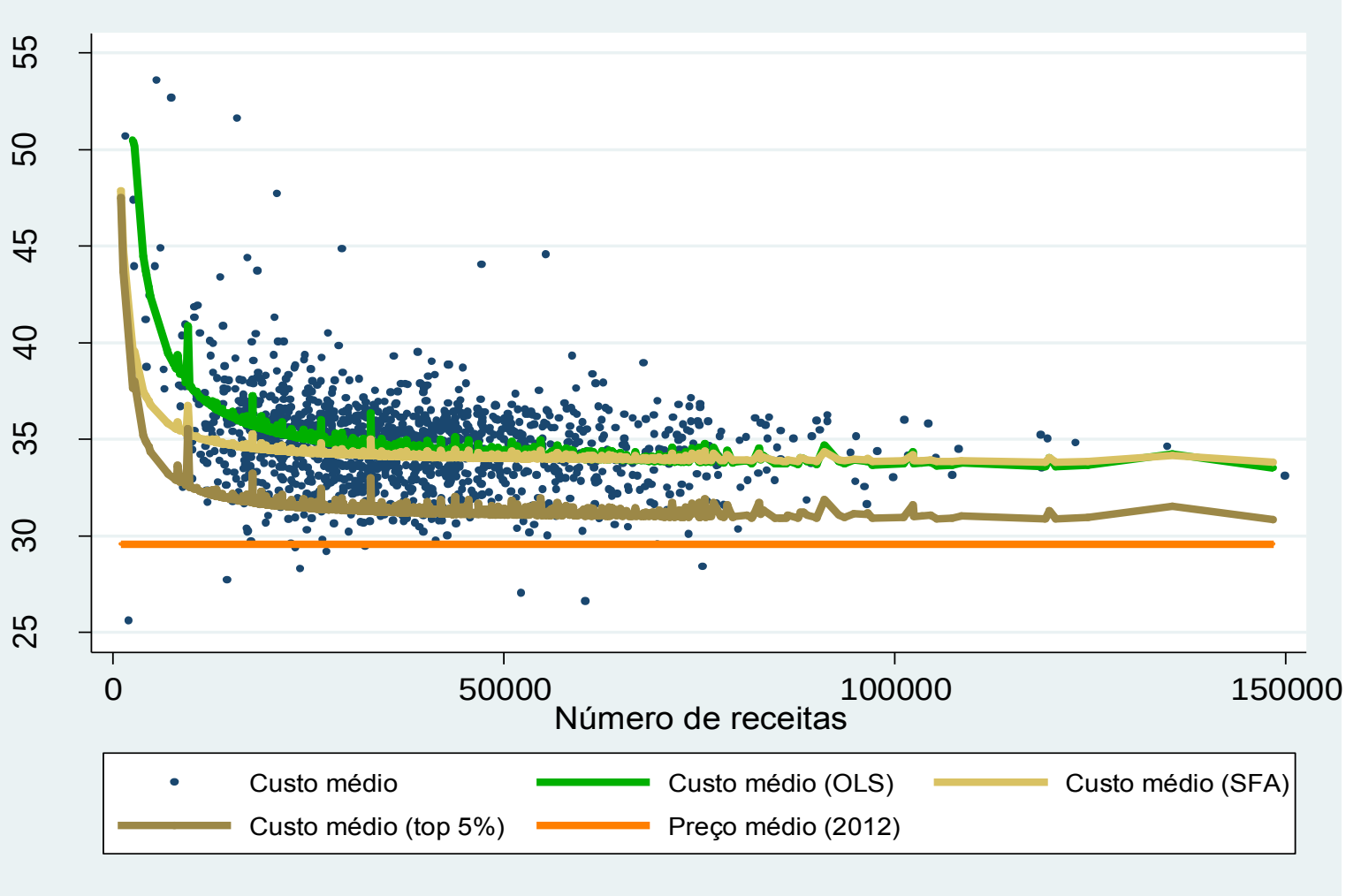
	Marginal cost	Fixed cost
CA (2002 data)	35.56€	22 091€
OLS	33.21€	44 438€
SFA (FC efficiency)	33.70€	14 987€
SFA (MgC efficiency)	31.52€	39 533€
Quantile – 5%	30.72	17 654€

There is room to decrease the fixed costs; not so much for the marginal

Results

- Decrease in the marginal cost – Prices decreased for the distribution as well
- Increase in the fixed cost – Doubled
- What happened? Regulation:
  - Staff and space (2007):
    - Longer opening hours;
    - Larger spaces plus dedicated areas;
    - More pharmacists at each pharmacy;
  - Affects mainly the fixed cost.

Implications



Implications

	Price	Marginal cost	Observations
CA 2005 (2002 data)	**38.81€**	**35.66€**	Positive profit margins, allows the payment of fixed costs
Situation in 2011 (costs from 2010)	**33.04€**	**33.21€**	Slightly negative profit margin, does not allow the payment of the fixed costs.
Situation in 2012 (costs from 2010)	**29.17€**	**33.21€**	Profit margin clearly negative, the pharmacy loses money on its normal activity, it adds losses to the fixed costs.

Conclusion

- Government policies aimed at decreasing the profit margins and prices in the last years
- Currently, the average pharmacy is operating with negative economic profits since 2011.
- The most efficient pharmacies cannot cope with the average price.
- Government stepped back on the 2007 regulation