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CHANGING MARGINS IN PHARMACEUTICAL DISTRIBUTION: WHO BENEFITS FROM THE NEW SLICING OF THE PIE?

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Motivation

- The pharmaceutical sector has been subject to several cost containment measures since 2000
- Most recent ones derive from the Memorandum of Understanding with the Troika
- One the commitments of the Portuguese Government was to change the distribution margins in order to achieve savings of at least 50M€

MoU – May 2011

3.64. **Change the calculation of profit margin into a regressive mark-up and a flat fee for wholesale companies and pharmacies** on the basis of the experience in other Member States.

The new system should **ensure a reduction in public spending on pharmaceuticals and encourage the sales of less expensive pharmaceuticals**. The aim is that lower profits will contribute **at least EUR 50 million to the reduction in public expense** with drugs distribution. [Q4-2011]

MoU – May 2011

3.65. If the **new system of calculation of profit margin** will not produce the expected savings in the distribution profits, introduce a contribution in the form of an average rebate (pay-back) which will be calculated on the mark-up. The rebate will reduce the mark-up by at least 3 percentage points. The rebate will be collected by the Government on a monthly basis through Centro de Conferência de Facturas, **preserving the profitability of small pharmacies in remote areas with low turnover**. [Q1 -2012]

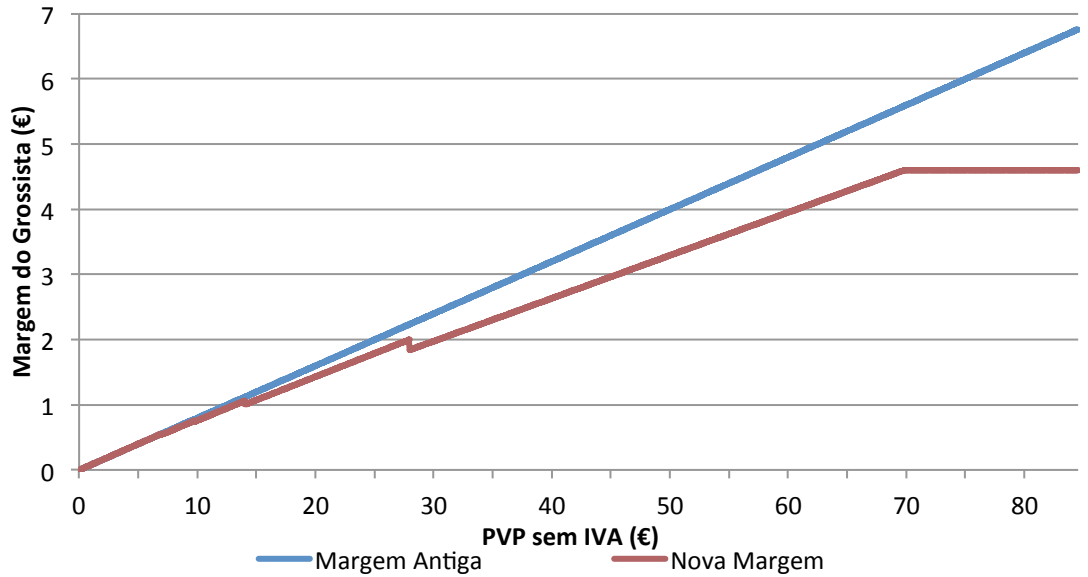
The questions

- What was the price reduction in retail distribution?
- What was the impact in pharmacies and wholesalers?
- What was the impact on remote areas, are there more vulnerable regions?
- What was the impact on Government spending with pharmaceuticals?

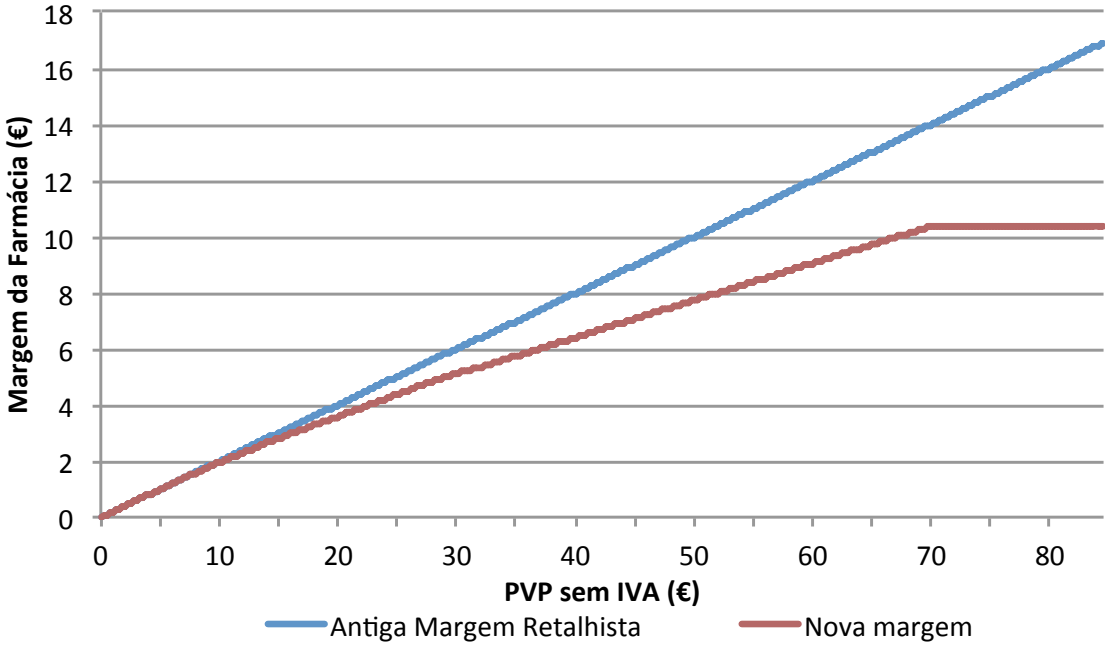
What was the change?

PVA	Pharmacy		Wholesaler	
	2012	2011	2012	2011
≤ 5€	27,9%*pva	27,9%*PVA	11,2%*pva	11,2%*PVA
5€ < pva ≤ 7€	25,7%*pv+,11€		10,85%*pva	
7€ < pva < 10€	24,4%*pva+0,20€		10,60%*pva	
10€ < pva < 20€	21,9%*pva +,45€		10%*pva	
20€ < pva < 50€	18,4%*pva+1,15€		9,2%*pva	
50 < pva	10,35 €		4,60 €	

Wholesale



Pharmacy



How to provide an answer?

- Sample of 352 pharmacies, stratified sample, keeping pharmacy anonimity, real individual transactions – January to May 2012 vs January to May 2011 – 33 million transactions
- Objective: compute the effect of change in the margins of distribution; get an estimate for the full year of 2012

Main results (highlight)

- Estimate of impact:
- pharmacies: -54 million euros
- wholesalers: -21 million euros
- NHS: -49,6 million euros
- Population : - 23,9 million euros

How to get the estimates?

- Not all changes are due change in margins.
- All price reductions mean a decrease in distribution margins
- Need to specify which price to use to measure the change in margins (initial prices vs final prices)

How to get the estimates?

- Remove from sample
  - Errors
  - Returned products
  - Adjust database for repetition of registers when more than one “insurer” pays
  - Not all products sold by pharmacies have regulated margins – just the prescription-only pharmaceutical products

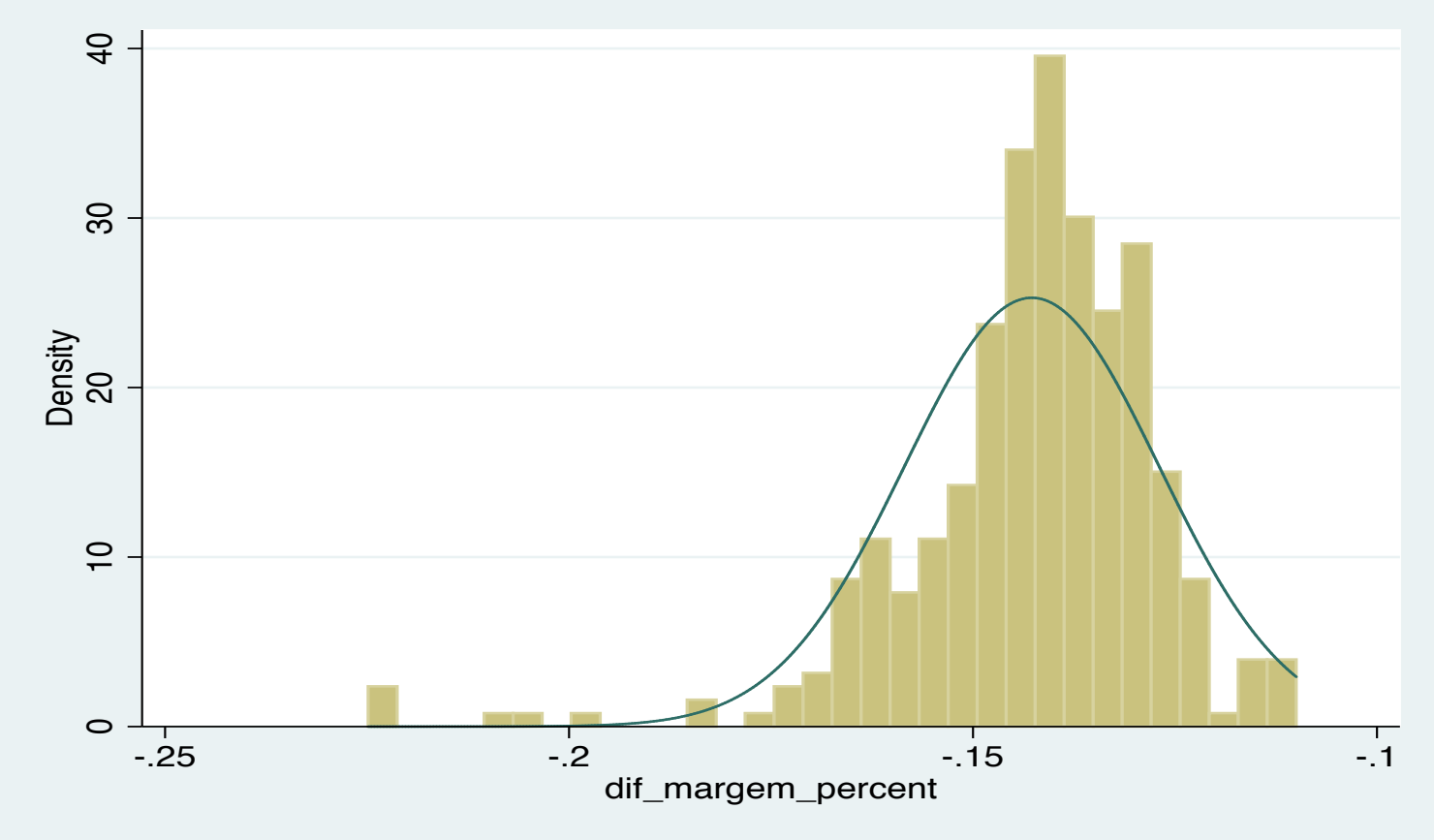
How to get the estimates?

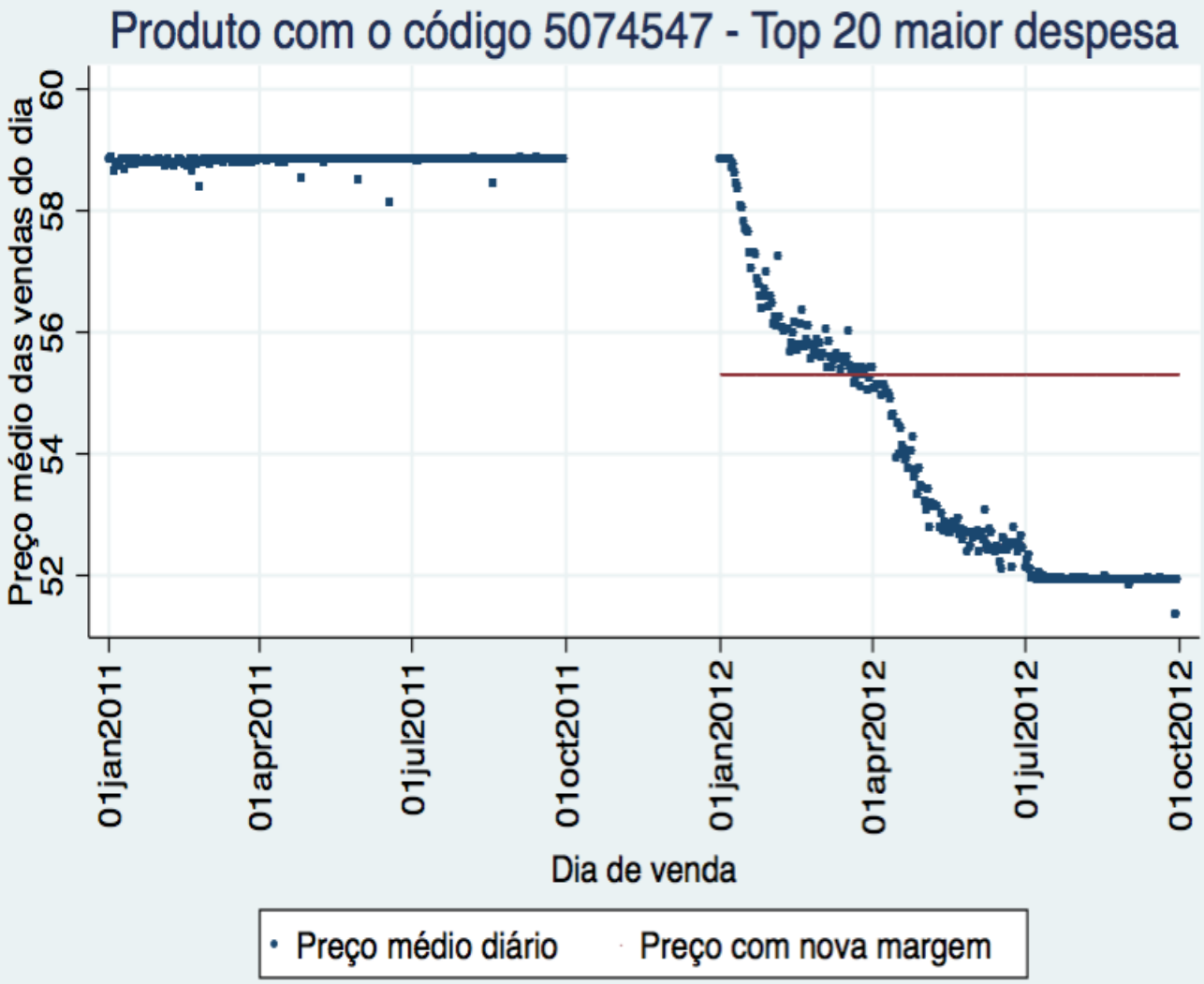
- Quantities and prices of 2012 with new margins
  - Obtain pre-margin price
  - Apply to pre-margin price the margin rules of 2011, getting the counterfactual price
  - Compare margins for the pre-margin price, difference is the savings
  - Using 2012 prices means using prices after all other changes; it underestimates the impact

How to get the estimates?

- Need to take into account that real sales occur under the running down stock at previous prices
- This seems to occur relatively fast for major products
- Needs to assume something about price elasticity - first approximation use zero elasticity

- Percent change in margin across products sold in the first five months by pharmacy
- Average margin value decrease: 14%





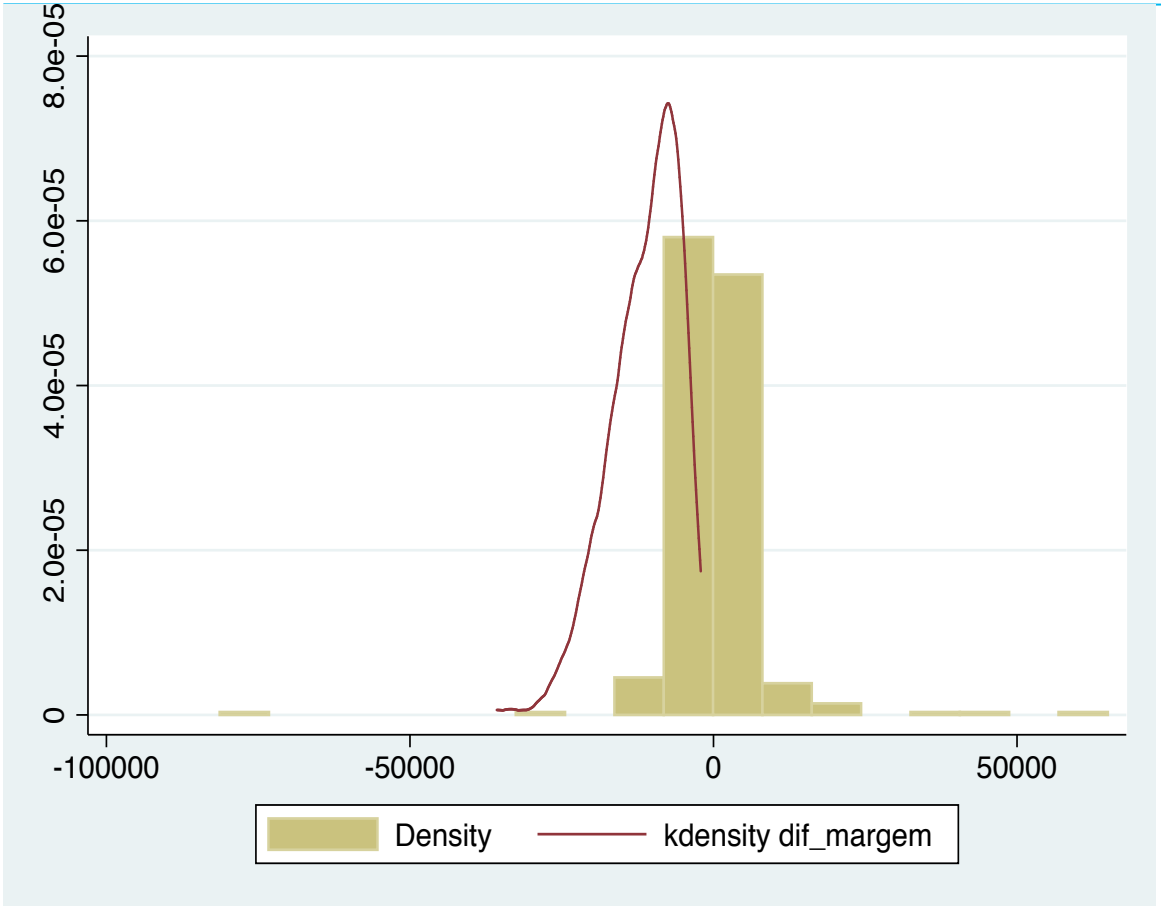
Average price per day

Red line-margin effect

Measure in lower price or at initial price (Jan?)

Is this a problem to pharmacies?

- Can the sales of other products compensate?
- (either selling more of other products, or increasing their margins)
- Analysis at the pharmacy level
- Check whether sales of other products increased more in pharmacies with higher (percent) loss in margins of prescription products



- Bars: absolute change in margins of other products
- Line – absolute change in regulated margins (prescription)
- Room for compensation effects seems small

Can other sales compensate?

- The intuition from figure is confirmed by regression analysis
- Simple version: dependent variable = sales of other products; independent variable of interest: loss in margins of regulated prices of pharmaceuticals
- Compensation: coefficient should be negative
- Results: either zero or positive

Geographic incidence

- Are regions affected differently – vulnerable locations?
- Looking at location and average reduction in margins, the effect is widespread
- Although some pharmacies may be less affected, in all areas across the country there are pharmacies with strong impact

Conclusions:

- The value of the margin reduction attained in Portuguese pharmacies alone exceeds the MoU target for the pharmaceutical sector as a whole.
- There is no room for compensation of the margin loss with sales of products whose margin is not regulated.
- Finally, pharmacies in all regions of the country are negatively affected by this policy.