

**The price effects of liberalization in the OTC market**Ana Moura¹, Pedro Pita Barros¹, Luís Catela Nunes¹

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Objectivos (Objectives): The liberalization of Over the Counter – OTC – medicine distribution in Portugal started in 2005, following the Decree-Law n. 134/2005, published on August, 16th. One of the most important consequences of such change in legislation is related to the fact that OTC drugs began to be available outside pharmacies. More precisely, specific stores and supermarkets were allowed to sell these products, implying that traditional pharmacies faced a sudden increase in competition in the last years. The lack of empirical evidence on the price effects brought by the liberalization process, as far as competition between establishments is concerned, creates scope for this paper. In this paper we address the price impact of the OTC liberalization.

Metodologia (Methodology): During December 2010 to February 2011, we collected data on the prices of five popular OTC drugs in pharmacies, specific points of sale and supermarkets. The data collection was carried out across the entire Lisbon municipality, meaning that every establishment selling the relevant OTC bundle was visited. So, our dataset does not consist on a sample from the population, but rather on the Lisbon population itself. We had access to an older dataset collected right after the liberalization of the market, which consists on the prices charged by a large sample of establishments based in Lisbon, for the same 5 drugs. The fact that we have the information on prices for the same establishments and products at two distinct points in time allows us to analyse the effects of increasing competition over time on the prices charged in these products. In this paper we focus on two particular effects of increasing competition. First, we consider a ‘non-pharmacy effect’, that is, the effect on prices of the establishment being either a specific point of sale or a supermarket, which we expect to be associated with a lower price being charged for the OTC drugs in the bundle. Then, we account for the presence of a ‘competition effect’ by identifying non-pharmacy establishments among the competitors faced by each pharmacy. Indeed, we expect pharmacies that faced an increase in competition due to entry of non-pharmacy players to charge lower prices than those that did not face such increase. In order to account for the general level of competition faced by each establishment, we identified its five closest competitors that were selling the relevant OTC bundle. After the identification, a competition index was constructed, considering the time and distance from each establishment to its competitors.

Resultados (Results): Overall, our results show that the first effect is sizable as non-pharmacies are associated with a price that is, on average, 5.7% lower than pharmacies, providing evidence that the type of establishment is definitely playing a role. As for the second effect, it is statistically distinguishable from zero, though it is more subtle than the previous one. More specifically, facing a non-pharmacy among the closest competitors is associated with a price charged that is 1.4% lower, on average, comparing to the reference group. These results are robust with respect to the competition index we constructed in the sense that alternative measures of the competition faced by each establishment were used and these did not significantly altered the results.

Conclusões (Conclusions): This evidence suggests that competition effects in the OTC market are in the right direction but rather weak. Indeed, it may well be that specific factors are playing a role in refraining competition. Whether these are institutional factors or particularities of the market structure itself, we cannot tell. Still, it remains to be answered whether one can, in fact, have competition in the OTC market.