

BRIEF REPORT

The price of cigarettes in the European Union

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Abstract

Background—A major factor influencing tobacco use is its price. Fiscal policies on tobacco are a key ingredient of any comprehensive control strategy, as they can be used to raise prices. The European Union (EU) developed directives to ensure some harmonisation of the fiscal pressure on tobacco across its member states.

Objectives—To provide a simple comparison of tobacco prices in the EU, adjusting for the purchasing power of each currency.

Design—For price comparisons, a 20 units pack of Marlboro was the reference product, and data refer to April 2000. Purchasing power parities (PPP) for each member state currency have been compiled. These are currency conversion rates, which convert to a common currency and equalise the purchasing power of different currencies.

Main outcome measures—Nominal prices of a Marlboro pack for each member state, and a price index, estimated taking as reference the EU mean. Adjusted prices and an adjusted price index have been estimated using PPP.

Results—Nominal prices show wide variation, with the cheapest pack in Portugal (59) and the most expensive in the UK (196); the range of variation is three-fold. However, PPP adjusted prices reveal a different distribution. In three countries adjusted prices are outliers, but all other countries make two clusters, one around the average EU index of 100, the other around a lower value of 85.

Conclusions—These results suggest that fiscal harmonisation policies in the EU do not have an even effect at reducing availability by its impact in price.

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Keywords: cigarette price; fiscal policy; health policy; European Union.

A major factor influencing tobacco use is its price of any comprehensive control strategy, as they can be used to raise prices besides providing governments with revenue.^{1–3} The European Union (EU) developed common directives to ensure certain levels of harmonisation of the fiscal pressure on tobacco across its member states, the most relevant being the council directive 92/79/EEC of 19 October 1992 on the approximation of taxes

on cigarettes (with minor amendments since its approval).⁴ While essentially a fiscal policy directive, it is very relevant to smoking prevention, and its effect in decreasing smoking has been documented.⁵

Tobacco price has several components. The tobacco control movement has attempted to influence governments into raising prices through taxation. However, given that countries differ in economic conditions as well as in other major factors related to tobacco trade, direct comparisons may be misleading. This paper attempts to provide a simple comparison of tobacco prices in the EU, adjusting for the purchasing power of each currency. The interest for such an adjustment originates from the fact that a basic consumption basket differs in price across countries. For example, one unit of Spanish currency affords less consumption in the UK than in Spain: in these circumstances, it is necessary to adjust for differences to compare the cost of a pack of cigarettes in terms of foregone consumption of the rest of goods.

Methods

For price comparisons, a 20 units pack of Marlboro was the reference product. Data on prices in EU member states were provided by the Spanish Tax Agency for April 2000. A price index has been estimated, taking as reference the EU mean (100). Purchasing power parities (PPP) for each member state currency have been compiled from the Organization for Economic Cooperation and Development (OECD) report on comparative price levels in February 2000, available from the web.⁶ These PPP are in fact currency conversion rates which both convert to a common currency and equalise the purchasing power of different currencies. In other words, PPP adjust the differences in price levels between countries in the process of conversion. Using PPP, adjusted prices of a Marlboro pack for each member state as well as an EU mean have been estimated. An adjusted price index has also been estimated for each.

Results

Results are presented in table 1. Nominal prices show wide variation, with the cheapest pack in Portugal (59) and the most expensive in the UK (196); the range of variation is three-fold. However, the PPP adjusted prices reveal two features which deserve comment in a global distribution with a bimodal pattern.

There are three countries whose adjusted prices are outliers when related to the rest:

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Table 1 Price and price adjusted to purchasing power parities (PPP) (in Euros) of a 20 unit pack of Marlboro cigarettes by member state. European Union, April 2000

Country	Price	Price index	Purchasing power parities	Price adjusted to PPP	Price index adjusted to PPP
Luxembourg	2.18	67	0.82	1.79	68
Netherlands	2.52	77	0.85	2.15	81
Greece	2.11	64	1.04	2.19	83
Portugal	1.95	59	1.13	2.20	83
Germany	2.88	88	0.78	2.25	85
Spain	2.25	69	1.00	2.25	85
Austria	3.07	94	0.79	2.43	92
France	3.20	98	0.79	2.53	96
Belgium	3.04	93	0.84	2.55	97
Finland	3.79	116	0.70	2.65	100
Italy	2.89	88	0.92	2.66	101
Denmark	4.17	127	0.64	2.66	101
Sweden	4.01	122	0.69	2.77	105
Ireland	4.69	143	0.87	4.08	155
UK	6.42	196	0.69	4.43	168
European Union	3.28	100		2.64	100

Luxembourg, with a very low adjusted price index (68); and Ireland and the UK with a high adjusted price index (155 and 168).

All other countries make two clusters, one around the average EU index of 100, the other around a lower value of 85. The Netherlands, Greece, Portugal, Germany, Spain, and Austria, ranging from 81–92, are a cluster of countries with lower adjusted price index. On the other side, France, Belgium, Finland, Italy, Denmark, and Sweden cluster around the EU average.

Discussion

The crude and adjusted results of this comparison are useful to have a clearer vision of actual prices in the EU. A few years ago, the Big Mac index of cigarette affordability was suggested for comparisons in this journal.⁷ Although intuitive, it is not easy to build, and is subject to other variations. On the other side, the OECD and the EU fiscal authorities collect routinely the data to provide crude and adjusted comparisons of cigarette affordability.

These results suggest that fiscal harmonisation policies in the EU do not have an even effect at reducing affordability by having an impact on price. Besides, many countries have local and popular cigarette brands, which may be much cheaper than Marlboro. The EU fiscal policy has been built around the concept of the most popular brand (which for instance in Spain has evolved from *Ducados* to the more expensive *Fortuna*). While comparisons based on the most popular brand are useful to check tobacco availability in each country, the actual policy component is obscured by other factors. Marlboro is the most widely sold brand in the EU, takes a major portion of the market in each country, and thus comparisons based on this brand are more readily understandable.

The policy relevance of this issue is clear. From a preventive position it is desirable that the cost of tobacco products is high and even

What this paper adds

The tobacco control movement has advocated fiscal policies to decrease smoking. International comparisons of tobacco affordability are difficult, because of the variety of cigarette brands, diverse economic conditions, and other major factors related to tobacco trade.

The comparison of tobacco prices in the EU shows that nominal prices of a single and popular cigarette brand (Marlboro) display a wide range of variation. Prices adjusted by purchasing power parities reveal a different distribution, with three countries behaving as outliers while all others converge in two clusters, one around the average EU index of 100, the other around a lower value of 85.

across the EU. The fact that prices are much lower in some countries implies that availability is higher. Another relevant issue is smuggling, which acts by weakening the fiscal component of tobacco control policies and offering a cheaper brand. The crucial role of smuggling has been discussed recently.⁸ The tobacco industry has often used the argument that higher taxes lead to smuggling, in order to weaken taxation policies. However, evidence points to smuggling being linked to a weak state rather than to price.⁹

It is noteworthy that adjusted prices actually converge in two clusters, with three outliers. It would be desirable to have them converge around the EU average. This could be obtained by ensuring higher prices in Luxembourg, and in those countries with prices around 85% of the EU average. However, the higher price in Ireland and the UK shows a lower level of availability which may be maintained.

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