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Did the recommended retail price of tobacco products fall in Australia following the implementation of plain packaging?

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ABSTRACT

Objectives This study aimed to assess the extent of any fall in recommended retail prices (RRPs) of tobacco products sold in Australia following the 2012 implementation of plain packaging.

Methods RRPs published in price lists by the New South Wales Retail Tobacco Traders Association covering the months of November 2011, November 2012 and November 2013 were recorded for all listed brands and pack sizes. Average prices per stick were computed in 2013 dollars for cigarette brands in each of 10 possible pack sizes, for each major tobacco manufacturer, and across market segments. Average prices per gram in Australian dollars adjusted to 2013 prices (AUD2013) were calculated for roll-your-own (RYO) tobacco brands for each major manufacturer.

Results Inflation-adjusted average RRPs per stick in November 2013 were on average 6.4% higher than in November 2011 and 3.4% higher than in November 2012. The average RRP per gram of RYO products in November 2013 was 10.2% and 5.4% higher than in November 2011 and November 2012, respectively. Within cigarette brands, the highest increases in RRP from 2011 to 2013 were seen among mainstream and premium brands (10.0% and 10.1%, respectively) and among packs of 30s (18.3%) and 50s (12.5%).

Conclusions The RRPs of tobacco products were higher in real terms 1 year after Australia's plain packaging legislation was implemented. These increases exceeded increases resulting from Consumer Price Index (CPI) indexation of duty and occurred across all three major manufacturers for both factory made and RYO brands, all three cigarette market segments and all major pack sizes.

INTRODUCTION

The tobacco industry claimed that the introduction of plain packaging of tobacco products in Australia would lead to a drop in the price of tobacco products as manufacturers would be forced to compete on price alone for market share.¹⁻³ It was claimed that falls would be particularly marked for premium brands.³ The tobacco plain packaging legislation came into effect between October and December 2012, with Australian manufacturers required to produce only compliant packs from 1 October 2012, and retailers permitted to sell only compliant packs from 1 December 2012.⁴

There were no real increases in excise and customs duty on tobacco products in Australia between a 25% increase in duty on 29 April 2010 and a 12.5% increase in duty on 1 December 2013, though 6-monthly duty indexation occurred

on seven occasions over that period.⁵ Excise and customs duty on tobacco products have been increased twice yearly in Australia since provision for automatic indexation of all duties was included in regulations in 1986 in order to ensure that these duties kept pace with inflation.⁵ Indexation occurred on 1 February and 1 August each year in line with increases in the Consumer Price Index (CPI) over the previous 6-month periods to 31 December and to 30 June.

The 6-monthly changes in tobacco excise/customs duty each year have prompted tobacco companies to adjust wholesale prices of all tobacco products each February and August. Companies have used the opportunity of the increases in duty to also adjust recommended retail prices (RRPs). Large retailers commonly buy stock at lower cost and sell cigarettes at lower-than-recommended prices. While RRPs are not compulsory, they provide a guide to small retailers as to prices that can be charged for each product. Increases in the excise/customs duty can be fully passed on to retailers and consumers ('fully-shifted'). Alternatively, they can be 'under-shifted': in this case, the retail price goes up by less than the amount necessitated by the increase in excise/customs duty. Or they can be 'over-shifted'—increased in price beyond the amount necessitated by the increase in duty. Increases in the Tobacco Sub-Index of Australia's CPI suggest that biannual adjustments have consistently been used by the industry in Australia as an opportunity for over-shifting—so that prices of tobacco products have increased in Australia by more than the overall rate of inflation even over periods where there have been no real increases in excise/customs duty.⁶

Official government statistics collected in order to compute the country's CPI suggest that overall tobacco prices did not fall following the introduction of plain packaging.⁷ Indeed, consistent with the previous 10 years, they appear to have risen by more than the overall rate of inflation.⁶ However, it must be recognised that the Tobacco Sub-index of the CPI does not provide details on—and may not reflect overall trends taking into account changes in—patterns of price increases of different types of products and brands.

We aimed to assess whether the RRPs of tobacco products produced by the three largest tobacco companies operating in Australia fell following the implementation of plain packaging. To do this, we compared changes in RRPs of all the products sold by these three companies between November 2011 (immediately after passage of the legislation



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through Parliament⁸), to November 2012 (by which time plain packs were being purchased by the majority of smokers⁹) and November 2013 (prior to the large increase in duty on 1 December 2013^{10 11}), a period during which there were no real increases (ie, no increases beyond the 6-monthly indexation) in excise/customs duty.

METHOD

RRPs for the majority of tobacco products on the Australian market are available in *The Australian Retail Tobacconist* (ART), a retailer's trade magazine that is typically published quarterly. The magazine also lists the pack size and the manufacturer of each brand including all brand extensions; for instance, *Pall Mall*, *Pall Mall Slims* and *Pall Mall Extra Kings*. Factory-made cigarettes (FMCs) were categorised into market segments as 'value', 'mainstream' and 'premium' according to the classification adopted by the *Retail World* grocery magazine.¹² Where products were not mentioned in *Retail World* we imputed a market segment category by comparing the stick price of these products to the highest and lowest prices per stick of products in each category.

We examined the RRP listed that were applicable in November of 2011, 2012 and 2013 for all tobacco products manufactured by British American Tobacco Australia (BATA), Imperial Tobacco and Philip Morris, and noted that no individual pack price was lower in 2013 than it was in 2011 or 2012.^{13–15} However, many brands were released in new pack sizes in 2013, and we wanted to account for these new products as well as for inflation when assessing the extent of changes in price over the 2 years from 2011. To calculate prices per cigarette stick (or per gram of each roll-your-own (RYO) tobacco pouch), we divided each product's

RRP by the number of sticks in each cigarette pack (or grams in each RYO product). These prices were then converted into standard November 2013 prices to take account of inflation. To do this we multiplied the listed price by the *all groups, all capital cities* Australian CPI figure for June 2013, divided by the June 2012 index figure for November 2012 prices (and by the June 2011 index figure for November 2011 prices).¹⁶ In this way, any observed increases in prices would reflect those made over and above CPI-linked increases in tobacco excise/customs duty. The average RRP per stick in 2013 dollars (AUD2013) of cigarettes was then calculated by manufacturer, market segment and pack size and for the 10 most popular FMC products in Australia.¹⁷ The average recommended retail gram price (AUD2013) of RYO tobacco was calculated by manufacturer only, as pouch sizes within each brand changed considerably in the examined period.

RESULTS

Table 1 shows that the average inflation-adjusted RRP of cigarettes and RYO tobacco increased from 2011 to 2012, and again from 2012 to 2013. The average overall inflation-adjusted increase in RRP per stick was 2.9% from 2011 to 2012 and 3.4% from 2012 to 2013. This varied across manufacturers, where the increase for Imperial Tobacco brands between 2011 and 2013 was approximately half that of BATA and Philip Morris, and by market segment, where the value segment increased by approximately 3.7 percentage points less than mainstream and premium segments.

Table 1 also shows that the total number of products (brand-pack size configurations) increased over time. It can be seen that this change predominantly occurred in the value market segment,

Table 1 Average recommended retail price in AUD2013 per stick for factory made cigarettes in 2011–2013 by manufacturer, market segment and pack size

	Per stick price, AUD2013 (SD; number of products)			Per cent change		
	At November 2011	At November 2012	At November 2013	2011–2012	2012–2013	2011–2013
Brands	n=27	n=28	n=27			
Brand–pack sizes	n=62	n=65	n=71			
All cigarette brand–pack sizes	\$A0.68 (\$A0.07; 62)	\$A0.70 (\$A0.08; 65)	\$A0.72 (\$A0.09; 71)	2.9	3.4	6.4
Manufacturer						
BATA	\$A0.71 (\$A0.08; 29)	\$A0.74 (\$A0.08; 28)	\$A0.76 (\$A0.09; 34)	5.0	2.1	7.2
Imperial	\$A0.65 (\$A0.06; 17)	\$A0.66 (\$A0.08; 19)	\$A0.67 (\$A0.08; 21)	2.4	1.1	3.5
Philip Morris	\$A0.65 (\$A0.04; 16)	\$A0.66 (\$A0.06; 18)	\$A0.70 (\$A0.06; 16)	1.1	6.8	8.0
Market segment						
Value	\$A0.60 (\$A0.01; 20)	\$A0.62 (\$A0.04; 24)	\$A0.64 (\$A0.04; 31)	2.4	3.8	6.3
Mainstream	\$A0.65 (\$A0.03; 16)	\$A0.68 (\$A0.03; 17)	\$A0.71 (\$A0.04; 16)	4.6	5.1	10.0
Premium	\$A0.75 (\$A0.05; 26)	\$A0.78 (\$A0.05; 24)	\$A0.82 (\$A0.04; 24)	4.9	5.0	10.1
Pack size						
20 sticks	\$A0.70 (\$A0.08; 28)	\$A0.71 (\$A0.09; 27)	\$A0.74 (\$A0.10; 25)	2.3	3.4	5.8
21 sticks	(0)	(0)	\$A0.65 (<\$A0.01; 2)			
22 sticks	(0)	(0)	\$A0.61 (1)			
23 sticks	(0)	(0)	\$A0.63 (\$A0.06; 2)			
25 sticks	\$A0.68 (\$A0.06; 19)	\$A0.71 (\$A0.06; 21)	\$A0.76 (\$A0.08; 21)	4.5	6.6	11.4
26 sticks	(0)	\$A0.57 (1)	\$A0.63 (\$A0.03; 3)		10.2	
30 sticks	\$A0.62 (\$A0.02; 5)	\$A0.65 (\$A0.01; 5)	\$A0.73 (\$A0.08; 7)	4.9	12.8	18.3
35 sticks	\$A0.71 (\$A0.08; 3)	\$A0.74 (\$A0.09; 3)	\$A0.66 (1)	4.5	–11.1*	–7.1
40 sticks	\$A0.60 (\$A0.02; 5)	\$A0.61 (\$A0.03; 6)	\$A0.65 (\$A0.04; 7)	2.1	5.2	7.4
50 sticks	\$A0.59 (<\$A0.01; 2)	\$A0.63 (<\$A0.01; 2)	\$A0.66 (\$A0.01; 2)	6.0	6.1	12.5

*Note: The 11.1% reduction in recommended retail prices (RRP) among packs of 35 sticks from 2012 to 2013 did not actually correspond to a decrease in RRP among any individual product. Rather, coinciding with the introduction of plain packaging, two of the three brands available in 35s, *Cambridge* and *Wills*, were repackaged from 35 to 30 stick packs. As the only remaining brand in this category, *Escort*, was a mainstream brand, the per stick RRP of 35s was substantially lower in 2013. The change in RRP among packs of 30s was correspondingly higher.

BATA, British American Tobacco Australia.

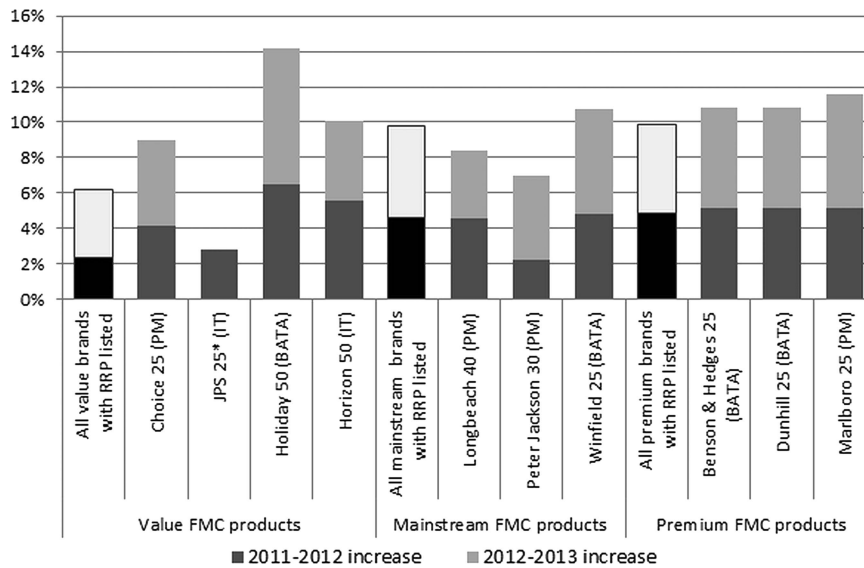


Figure 1 Annual per cent change in recommended retail prices (RRP) for the 10 leading FMC products in Australia and overall for all FMC products within each market segment. FMC, Factory-made cigarettes; BATA, British American Tobacco Australia; IT, Imperial Tobacco; PM: Philip Morris. *RRP for JPS 25s was not listed at November 2013. Source: selection of market-leading brands based on data from Euromonitor International presented in table 10.6.2 at <http://www.tobaccoaustralia.org.au/chapter-10-tobacco-industry/10-6-market-share-and-brand-share>.

with the introduction of several small unusual pack sizes (ie, 21, 22, 23 and 26 sticks). Even though the RRP of these packs with ‘bonus’ cigarettes was typically the same or lower than the equivalent packs of 20 or 25 within that brand, the net effect of the inclusion of these new cheap packs did not result in lower average per stick RRP in November 2013. Imperial Tobacco showed the lowest increase over the examined period, and this can largely be attributed to new *JPS* products, a value brand, being introduced at low RRP in a range of brand extensions and several pack sizes including 20s, 23s, 26s and 40s. However, even among value Imperial Tobacco brands, RRP increased in real terms by an average of 5% from 2011 to 2013 (data not shown).

The annual per cent change in RRP per stick of the 10 leading FMC products (brands and pack sizes) in Australia are shown in figure 1. Figure 1 shows that while the per cent change observed in both years was variable between market segments and individual products, overall, as also seen in table 1, the increase observed in 2012 to 2013 was larger than that of 2011 to 2012. The variability in per cent change observed in table 1 between product categories is attributable to variability in increases across brands as well as changes in the product offerings within categories, that is, the removal and introduction of sub-brands and pack sizes. However, the net effect is widespread RRP increases over and above inflation.

For RYO tobacco products, an overall real increase in per gram RRP of 10.2% was observed and the increases from 2011 to 2012 and 2012 to 2013 were of a similar magnitude (table 2). The average inflation-adjusted RRP of BATA RYO products appeared to increase substantially in 2012; this was due to very cheap BATA RYO brand, *Samson*, being removed from the ART listing in 2012. Similarly, the atypically small increase in RRP observed for Imperial RYO products from 2011 and 2012 was due to two expensive *Davidoff* RYO varieties being removed from the ART in 2012.

DISCUSSION

The tobacco industry claimed that prices of tobacco products would fall in Australia following the introduction of plain packaging and that this would lead to an increase in consumption. The major companies operating in Australia introduced several new products in unusual pack sizes in the lead up to plain packaging that were indeed priced cheaper per pack and cheaper per stick than existing products on the market.¹⁸ However, examination of price lists for cigarettes and RYO tobacco show that the RRP of all other products produced by BATA, Imperial Tobacco and Philip Morris increased well above inflation from 2011 to 2012, and from 2012 to 2013.

Table 2 Average recommend retail price in AUD2013 per gram for 2011–2013 by manufacturer for RYO tobacco

	Per gram price, AUD2013 (SD; number of products)			Per cent change		
	At November-2011	At November-2012	At November-2013	2011–2012	2012–2013	2011–2013
Brands	n=22	n=23	n=22			
Brand–pack sizes	n=35	n=37	n=36			
All RYO pouches	\$A0.72 (\$A0.09; 35)	\$A0.75 (\$A0.04; 37)	\$A0.79 (\$A0.05; 36)	4.5	5.4	10.2
Manufacturer						
BATA	\$A0.68 (\$A0.09; 8)	\$A0.76 (\$A0.05; 10)	\$A0.80 (\$A0.03; 9)	11.3	4.9	16.8
Imperial	\$A0.75 (\$A0.09; 21)	\$A0.76 (\$A0.04; 21)	\$A0.80 (\$A0.04; 21)	1.2	6.0	7.3
Philip Morris	\$A0.66 (\$A0.03; 6)	\$A0.71 (\$A0.03; 6)	\$A0.74 (\$A0.05; 6)	7.9	4.5	12.7

BATA, British American Tobacco Australia; RYO, roll-your-own.

This analysis is limited to the published RRP. Trade publications such as the ART can be slow to reflect actual changes in the market. For example, *Holiday 22s* were available in retail outlets throughout 2012¹⁹ but were not included in the ART until February 2013. RRPs are generally somewhat higher than prices observed in retail outlets,²⁰ with lower prices observed in low-SES neighbourhoods and in those with higher percentages of people under the age of 18.²¹ However, at least one study suggests that RRPs do tend to follow very similar patterns of increases over time to those observed in retail outlets.²² The increases in RRPs of value brands observed between 2011 and 2013 are in line with increases observed in audits of prices of cheap brands promoted in retail outlets.¹⁹

In conclusion, this analysis shows that average inflation-adjusted increases in RRPs were greater for premium and mainstream brands than for value brands, greater for RYO than for FM cigarettes, greater among the 25s, 30s and 50s than among other pack sizes, and greater among Philip Morris brands than among brands of the other two companies. Increases were particularly large among the market leading brands used by the majority of Australian smokers. Industry pricing strategies will no doubt drive changes in market share for various product types in Australia, so consumer surveys such as that reported on in this volume²³ will be needed to compute average changes in prices paid within and between various market segments taking into account real world retail prices and brand choices. Nonetheless, following the introduction of plain packaging in Australia, it is clear that companies continued to increase the RRPs of tobacco products in all market segments above and beyond the rate of inflation. This contrasts starkly with claims by companies and others opposing tobacco plain packaging legislation that prices would fall.

What this paper adds

- ▶ The tobacco industry claimed that standardised packaging would result in a drop in tobacco prices, particularly for premium brands.
- ▶ Examination of the inflation-adjusted recommended retail prices (RRPs) of all cigarette products from Australia's three largest tobacco manufacturers shows that RRPs in fact increased by 3.4% on average from 2012 to 2013, with increases greater among premium and mainstream than among value brands. Roll-your-own tobacco products showed an even greater average increase of more than 5.4%.
- ▶ Tobacco companies continue to increase RRPs of tobacco products beyond the rate of inflation in Australia.

Contributors MS designed this study and coordinated collection of data. MB collected data and undertook data analysis. All authors contributed to the drafting and finalisation of the manuscript.

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