Microeconomics IA

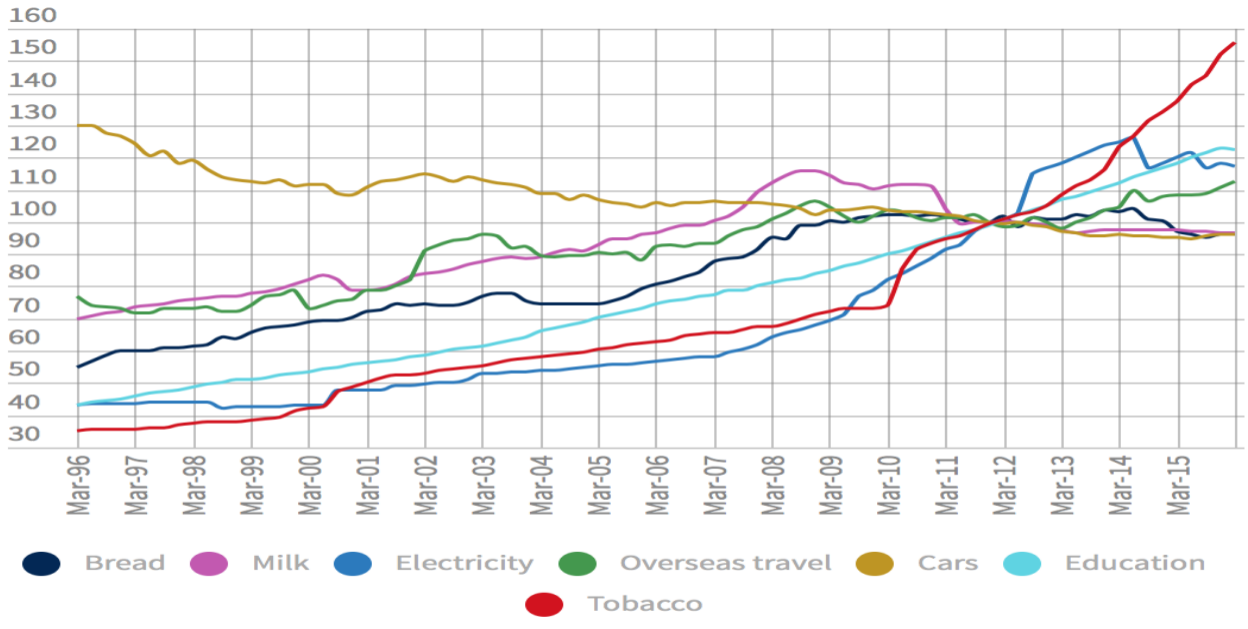
Tobacco tax rise comes after cigarette prices soar 343 per cent in 20 years

Inga Ting

Smokers – asked to cough up yet again in the federal government's latest budget – should take a deep breath before looking at the chart below.

It shows the price of tobacco has rocketed by 343 per cent since 1996, with the steepest rises since 2010.

The price of tobacco has risen by more than 340 per cent over the past 20 years.
Consumer price index, Australia. Index reference period: 2011-12 = 100.0



Graphic: Inga Ting | Source: ABS 2016

On Tuesday the federal government announced it will increase the tobacco excise by 12.5 per cent a year for the next four years.

The plan will cause the price of a packet of 25 cigarettes to rise to about $40, up from $25 today.

Bitter though it may be for smokers, the hefty price rise is nothing new.

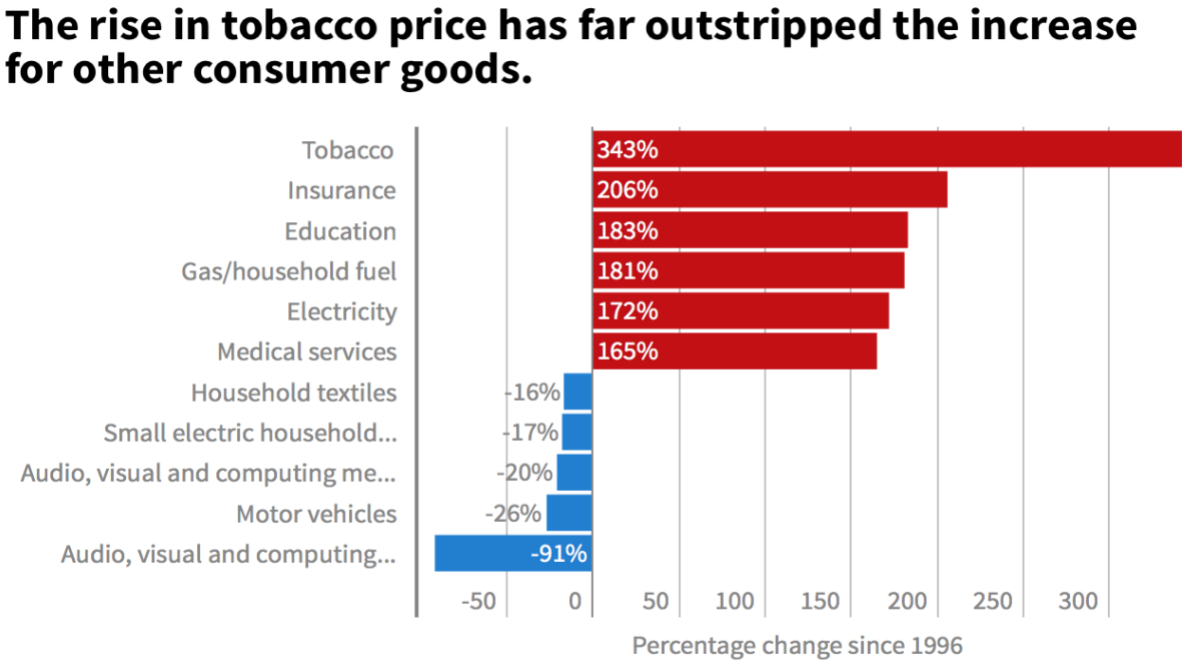
In the five years to March 2016, the price of tobacco rose by 64 per cent, compared with 51 per cent in the previous five years and 25 per cent in the five years before that.

The rising price of tobacco far outstrips the increases recorded by other consumer goods.

Cigarettes posted the largest price rise among more than 80 consumer items tracked by the Australian Bureau of Statistics' consumer price index.

Tobacco prices rose 1.5 times faster than the cost of insurance (up 206 per cent) and nearly twice as fast as the cost of education (up 183 per cent), which posted the second- and third-largest price increases over the same period.

By contrast, audio, visual and computing equipment such as television sets, cameras and laptops plunged by 91 per cent. The cost of a car dropped by 26 per cent.



Graphic: Inga Ting | Source: ABS 2016

Emeritus Professor Simon Chapman from the University of Sydney's School of Public Health said tobacco control had been one of the great public health success stories of our time.

"Tobacco control is the poster child of chronic disease control," he said.

"Tobacco tax is like a vaccine against lung cancer. Price is the single most important factor in determining demand."

Dozens of internal documents from the tobacco industry showed manufacturers were well aware of this, Professor Chapman said.

"That's why they protest about it so much."

Ting, I. (2016, May 03). The chart no smoker wants to see. Retrieved November 14, 2016, from http://www.smh.com.au/business/consumer-affairs/tobacco-tax-rise-comes-after-cigarette-prices-soar-343-percent-in-20-years-20160504-goltel.html

Microeconomics Commentary

The article discusses the Australian government's decision to increase indirect taxation on tobacco by 12.5% annually until 2020 to reduce consumption of cigarettes. Prices will rise from AUS$25 to over AUS$40 by 2020 for a pack of 25 cigarettes.

Cigarettes are demerit goods as their consumption is undesirable for society due to the negative externalities (costs suffered by third-parties due to a decision) they impose.
The market for cigarettes is an example of market failure- the equilibrium quantity is unequal to the socially optimum output level.

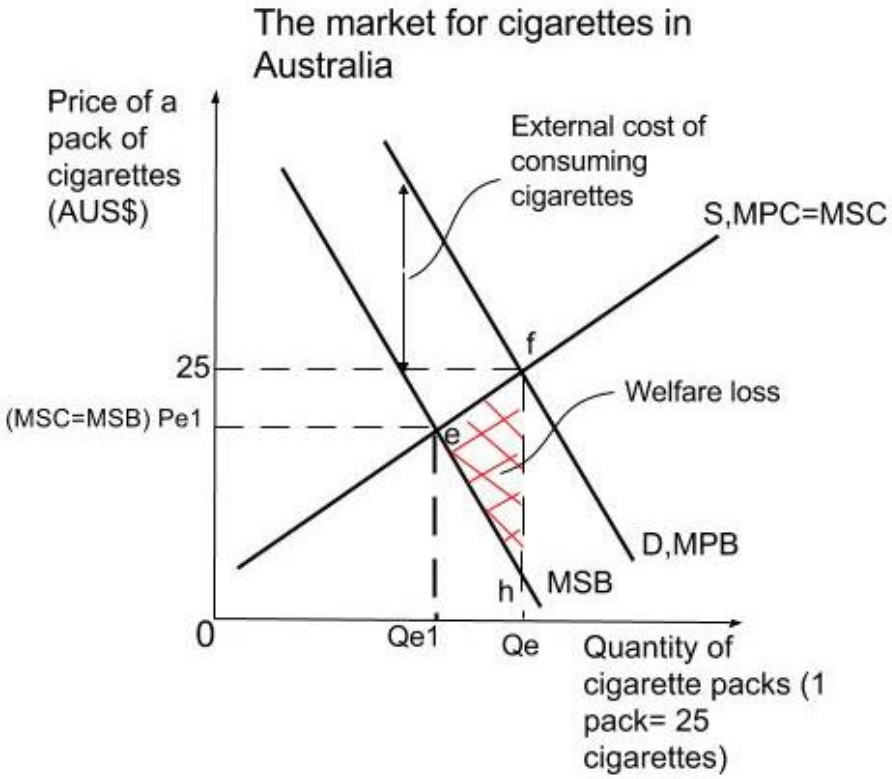


Diagram 1

The equilibrium quantity is Qe at a price of AUS$25. There are no assumed negative externalities throughout production, so the Marginal Private Cost(MPC) always equals the Marginal Social Cost(MSC). However, the Marginal Social Benefit (MSB) is lower than the Marginal Private Benefit (MPB) by the amount of the "external cost of consuming cigarettes".

The optimum level of consumption is Qe1 because at e, MSC=MSB. In the free market though, the quantity demanded, Qe, exceeds Qe1, indicating over-consumption and over-

allocation of resources due to consumer ignorance towards the societal impact of consuming cigarettes. For each additional unit after Qe1, the marginal cost to society is higher than the marginal benefit. Hence, market failure exists due to over-consumption of [Qe–Qe1] units, facilitating the welfare loss efh.

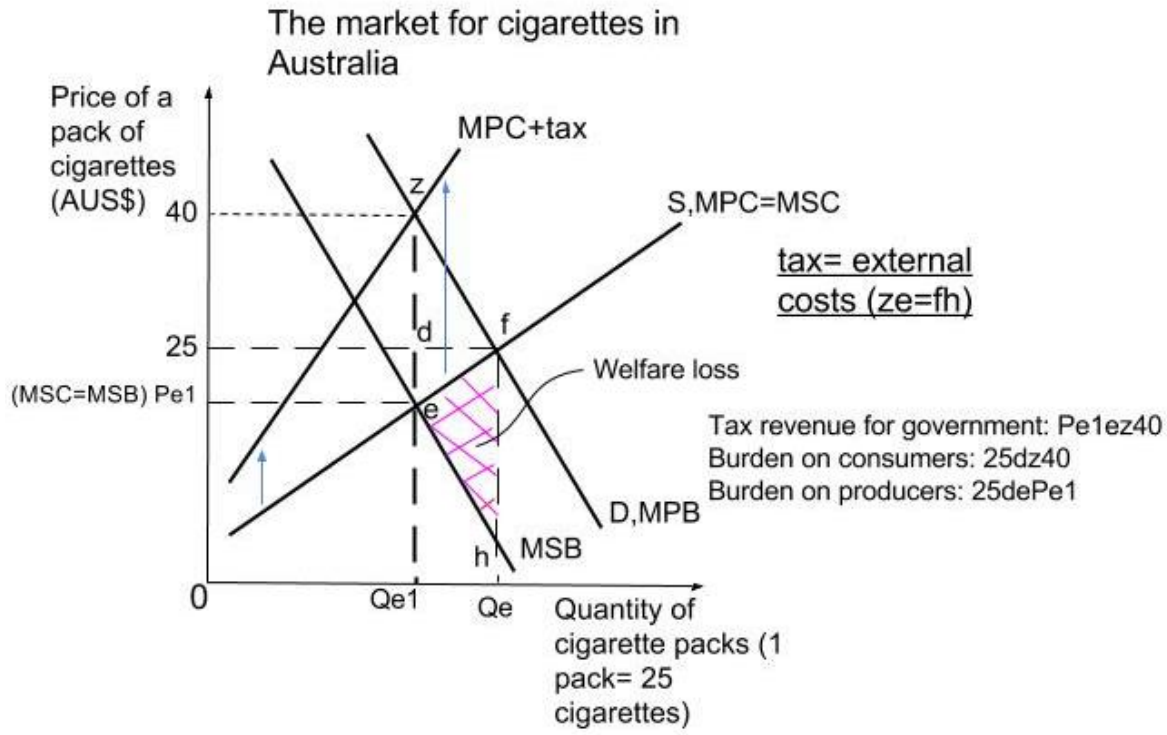


Diagram 2

Being a crucial raw-material in the production of cigarettes, an indirect ad-valorem tax on tobacco is targeted to shift the MPC curve leftwards (to MPC+tax), thereby increasing equilibrium price from AUS$25 to AUS$40, and decreasing equilibrium quantity from Qe to the socially optimum output level Qe1. However, imposing an indirect tax that completely internalises the externalities (by raising firms' costs exactly by the amount of social costs) is unlikely, as it is difficult to quantify the social costs accurately.

The intervention will affect stakeholders. Firstly, the indirect tax on tobacco increases raw material costs for producers, causing the "hefty price rise" for consumers as they cover majority of these costs. Despite the favorable tax incidence, producers remain disadvantaged as their revenues decrease from 25fQe0 to Pe1eQe10, while the government earns tax revenues.

In reality, the tax is unlikely to significantly reduce consumption because demand is highly price inelastic (% change in quantity demanded< % change in price) and “the hefty price rise is nothing new”, leading to negligible reduction in the negative externalities. So, government should reduce consumption using the tax revenues by subsidizing healthier substitutes (like electronic cigarettes and nicotine gum), which involves lowering production costs of these products to lower their prices. Lowered prices increase quantity demanded for substitutes, reducing consumption of cigarettes.

Unfortunately, the high indirect tax has disadvantages as the “protest[ing]” producers tackle increasing costs and decreasing revenues by firing employees, resulting in higher levels of unemployment. Consequentially, there is increased spending on unemployment benefits which the government could have allocated to improve healthcare, education and infrastructure. Furthermore, indirect taxes are regressive as they capture a higher proportion of poor households’ income, and thereby may increase income inequality in Australia. Lastly, there is a huge risk as consumer addiction towards cigarettes and the perpetually increasing taxation can catalyze the development of an unrecorded free market that offers lower prices by avoiding taxation. In the long-run, increasing demand for illegal cigarettes may lead to a large proportion of tobacco transactions becoming illegal, reducing tax revenues for the government and providing disincentives for legal producers to oblige with government policies.

Another method for the government is negative advertising and publicity campaigns to educate public of the health-issues and externalities of over-consuming cigarettes. Spreading awareness of the social costs can reduce MPB or value of smoking for consumers, thereby lessening consumption. Therefore, demand and price fall in the free market, shrinking welfare loss. This method, however, requires significant expenditure, creating an opportunity cost of allocating the spending elsewhere. Also, Professor Simon Chapman believes “price is the single most important factor in determining demand”, rendering this method ineffective.

Regulation and legislation is adoptable too, where the government imposes policies to restrict output by raising private costs for firms, so that prices rise in the short-term, lessen consumption, and eradicate the welfare loss. However, intervening starkly (such as bans) is unadvisable as the production process provides employment opportunities in the economy

and has no negative externalities. The resulting unemployment from restricting output, however, can have personal, social and economic negative externalities.

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