

An Economic Analysis of the Luxury Car Tax in Australia

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Introduction

Luxury cars are a symbol of wealth, success and prestige and are a commodity of a sophisticated monopolistically competitive market around the world. Considering luxury cars to be representative of superior goods, you would expect sales to be decreasing during an economic downturn. However, while sales of luxury cars in Europe and the US declined during the GFC, sales within Australia increased substantially.

This paper presents a closer inspection of this market in Australia and particularly focuses on how the government has applied the Luxury Car Tax (LCT). It looks at the impact of the LCT on the Australian luxury car market from an economic perspective, and attempts to explain the political rationale for maintaining such a tax.

About the Luxury Car Tax (LCT)

The LCT was first introduced in Australia in 2000, at the same time that the Goods and Services Tax (GST) replaced the wholesale sales tax. Currently the Australian Taxation Office (ATO) defines a “luxury” car as any vehicle which carries less than two tonnes, less than nine passengers and is a passenger car, station wagon or four-wheel drive vehicle with a GST-inclusive price (LCT value) above the LCT threshold of \$57,466 or \$75,375 for cars with a fuel economy of less than 7 litres per 100km. According to the ATO’s website the tax is calculated based on the LCT value of the car **less** the LCT threshold **less** the amount of GST above the threshold **less** the LCT rate or equivalently:

$$[(\text{Retail value including GST}) - (\text{LCT threshold value})] \times (10 / 11) \times (33 / 100)$$

The initial LCT rate was set at 25%, however, in July 2008, this rate was increased to 33% by the Rudd Government. At the time, Treasurer Swann advised that the ‘*Government believes that Australians who can afford luxury vehicles have the capacity to contribute to revenue at a higher rate than other car buyers.*’ (Increasing the Luxury car Tax, 2008). He also went on to forecast that the increased LCT rate would generate an additional \$555mn over 4 years (2008). Table 1 demonstrates the returns from the LCT over the past four periods. In other words, the tax incidence would fall upon the wealthy by reducing their collective surplus by such amounts.

Table 1: Actual luxury car tax collections (ATO Statistics)

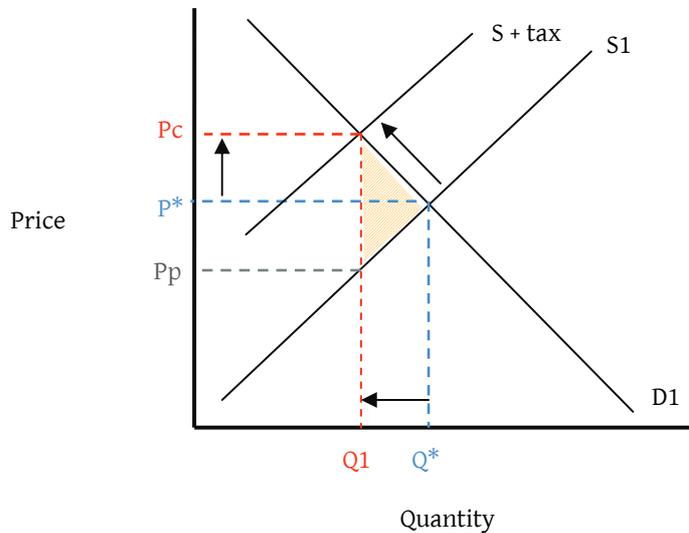
2005/6	2006/7	2007/8	2008/9	2009/10
\$321M	\$370M	\$447M	\$376M	\$482m

However, the LCT can be seen as a directly-unproductive profit-seeking activity (DUP). Bhagwati (1996) describes two groups within the DUP theory:

1. **Downstream** activities where lobbying income is derived from import quotas or tariff revenues (also known as rent seeking or revenue-seeking).
2. **Upstream** activities where lobbying income is derived from protectionism (or lack thereof) and affects the profits earned.

The LCT falls into the downstream category and can be seen as an exacerbating the deadweight cost in the market.

Graph 1: Supply/demand curve showing dead weight loss due to tax.



- The addition of the sales tax causes a shift in the supply curve ($S1$ to $S + tax$)
- This causes an increase in the price for consumers from P^* to P_c
- This then reduces the quantity demanded from Q^* to Q_1
- This also results in the price received by the car producers to fall to P_p .

Economic Significance of the LCT

If we begin with the premise of neoclassical economics that a policy of unhindered free trade maximizes welfare and enables markets to achieve efficiency in equilibrium we can then understand the Australian Government's decision on the LCT as a political-economic two-level game. On one level by lowering the import tax from 10% to 5%, the government signalled to the international markets a positive step towards a freer trade policy. However, on the second level, the LCT is applied to a minority which is unlikely to be able to organise a coalition with enough effectiveness to oppose the tax successfully and thereby panders to the majority electorate. Furthermore, the LCT:

- would not be likely to draw retaliation from trading partners as it is applied to both the foreign and the domestic luxury car market;
- is a domestic policy that drives a wedge between market prices and social costs and
- is not an explicit trade barrier such as a duty or a quota would be

The first law of demand tells us that there is an inverse relationship between the price of a good and its demand, all things being equal (Graph 1). The LCT creates a dead weight loss due to inefficient underproduction (the area shaded on graph 1) where the distribution of the burden of the tax is increased for the consumer and decreased for the producer.

Government intervention in the luxury car market, via application of the LCT and associated threshold, also creates distortion in consumer choice in a number of ways. First, consumers that find themselves making choices at the threshold may opt for buying cheaper cars to avoid paying the LCT. This leads to a welfare loss in terms of consumer surplus. Second, the preferences of luxury car consumers may shift from standard specification models to higher specification ones in line with the third law of demand - when the price of two substitute goods increase by the same amount per unit including LCT, there will be a shift in demand towards the higher grade goods. Empirically, retailers do offer higher specification models in Australia relative to the rest of the world. This offsets the effect of LCT on price countering the impact of the tax negatively impacting luxury car sales.

Both of these effects will reduce producer surplus. Also, the higher 'fuel efficient' threshold may incentivise the purchasing of 'fuel efficient' cars. However, the definition of 'fuel efficient' vehicles via a simple fuel consumption limit is questionable in terms of its effectiveness from an environmental viewpoint and may well distort the incentives on pursuing other forms of innovations. Furthermore, the car accessories market is distorted in favour of 'after market' suppliers in the case of luxury cars, because LCT is applied to accessories when included at the time of car purchase, whereas it does not apply when purchased after the vehicle is bought.

Political Economy

Under Bhagwati's (1996) *clearinghouse government* model of introducing the government in economic constructs, economic agents such as lobby groups compete with each other to win more favourable policy outcomes. Table 2 shows possible lobbies in relation to this tax to understand the sources of discrepancy between economic theory and reality.

Table 2: Supporting and Opposing lobbies for the LCT

Supporting Lobbies

Competitors

- ✓ Manufacturers of non-luxury cars
- ✓ Alternative luxury goods vendors.

Lower-Income Groups

- ✓ People who cannot afford luxury cars – a larger coalition than that of those who can afford a luxury car.
- ✓ Based on *Ability-to -Pay Principle*: where the burden shifts towards the wealthy rather than the poor

Environmental Protectionists

- ✓ The LCT incentivises fuel efficient 'green' cars through a higher threshold.

Opposing lobbies

Luxury Car Manufactures and Consumers

- ✓ Brand loyal customers
- ✓ Regional 4WD consumers are subject to this tax even though these cars are a necessity and not a luxury item. (FCAI, 2008)

Environmental Protectionists

- ✓ Luxury cars have advantages in safety features as well as lower emissions and fuel-efficient technologies (FCAI 2008)

Free Trade Advocates

- ✓ LCT can be construed as a non-tariff barrier

The application of the LCT follows the Grossman-Helpmann (1994) model for endogenous protection and explains the curious relationship between increased taxes and increasing demand of high value vehicles. This model relates to a Ramsey tax structure that advocates minimizing the deadweight loss of taxation by taxing goods with the most inelastic

demand. It predicts that, for unorganized industries, the relationship between the number of imports and the level of trade protection is inverse as the industry cannot sustain trade protection and will have to compete with imports.

By extending the Grossman-Helpman model and assuming that the government considers tariff revenues as a separate policy priority in order to support budgetary performance and deliver the demands of a two-level game, the government is mostly concerned with budget income and tariff revenues followed by public welfare, with special interest lobbies being the lowest ranked. As a result the following predictions of the model are relevant:

By way of example, *The Australian Financial Review* (13th June 2011) recently reported a 178% increase in Australian Rolls Royce sales for the year. Despite the increased level of taxation and implied deadweight loss, Ramsay's pricing theory seems to hold.

LCT – Winners and losers

People engaged in ordinary economic activity are driven by self-interest. In the case of the LCT, this has created two distinct sets of market participants - those who have benefits from its operation and those who are worse off:

1. **Losers:** Special interest industry groups and lobbies who largely base their opposition on the price of luxury cars in Australia as compared to other countries. Refer to Table 3 for an example of this basis for opposition.

Table 3: Car price comparison

	Porsche 911	Rolls Royce - Phantom	Range Rover Sport V8	BMW M3	Lexus RX450h	Holden Commodore SS
Country of origin	Germany	England	England	Germany	Japan	Australia
Australia	\$ 293,000	\$1,068,000	\$ 160,000	\$ 168,000	\$ 97,000	\$ 45,000
Japan	\$ 134,000		\$ 125,000	\$ 110,000	\$ 62,000	
England	\$ 107,240	\$ 450,000	\$ 103,000	\$ 85,000	\$ 70,500	
USA	\$ 77,140	\$ 373,000	\$ 72,000	\$ 59,000	\$ 46,000	\$ 30,000

Figures in current AUD (Spinks 2011)

2. **Winners:** Those car manufacturers (predominantly from Asia and domestic) as well as consumer groups who have a self-interest in non-luxury car affordability, per Table 4. Note that the average wage has increased by 63% in the same period (James 2010).

Table 4: Affordability of Ford Falcon and BMW 320i

	Ford Falcon affordability	BMW 320i affordability
2006	36 weeks of wages	54 weeks of wages
2011	31 weeks of wages	43 weeks of wages
Improvement in affordability	16%	26%

The Henry Tax Review (2010) questioned whether the Government, via the LCT, actually achieves equity in terms of effective redistribution of income. It also queried the narrow, discriminatory nature of the tax, given that the LCT targets consumers who prefer expensive cars over most other luxury items.

The resulting distortion in the market creates economic inefficiency whereby social welfare is prevented from being maximised and creates deadweight loss. However, the section of society experiencing this inefficiency is the high-income group of luxury car buyers. While this sub-group would be considered relatively small, it is also quite diffuse, and therefore difficult to coordinate into a strong enough lobby to effectively oppose the LCT. This follows Olsonian Coalition Theory, where a group or coalition must have sufficient size and be concentrated (not diffuse), in order to organize successfully and become effective.

Nevertheless those who are passively (not vocally proactive) in favour of the LCT are also aware that it is discriminatory towards the growing minority of people able to purchase a luxury car. A 2010 survey on public attitudes to tax demonstrated that better than 80% of respondents believe that high income earners pay too little tax (Spinks 2011). Combine this sentiment with the comment by Wayne Swann (cited above) and the fact that most other luxury goods are not taxed outside of GST and it is clear that the LCT is highly and knowingly discriminatory.

One key supporting reason for the Government to maintain the LCT is that it has had little impact on luxury car sales. The LCT does act as a trade barrier as it taxes a higher proportion of imported cars than domestic cars. However, the argument that this has limited sales of imported and domestically made luxury cars loses credibility when recent luxury car sales as a proportion of total car sales in Australia, has shown substantial increases as reported by CommSec (James 2010).

Conditioning and cognitive dissonance of the Australian market assist in the acceptance of the LCT. Improving affordability has somewhat counteracted the additional cost of the LCT as the average income has increased, whereby the gross price of a benchmark vehicle

model has remained unchanged. Moreover, the winners from the LCT are more concerned about not having to contribute to the \$500 million per year that the LCT generates than the welfare of those who do.

Conclusion

The LCT created a deadweight loss as a tax is expected to do. The dynamic effect of affordability increasing as the tax rate remains fixed contributed to the situation whereby the expected reduction in demand did not happen. The tax is a significant contribution to the price of luxury cars, making them appreciably more expensive in Australia than countries such as the US, UK and Japan. However, market demand continues to increase.

The LCT was put in place to raise revenue by taxing those deemed to have a higher degree of disposable income. While the tax exists against economic theory and expert industry advice, this paper corroborates the fact that it adds significant revenue into government coffers while reducing the surplus of consumers whom can tolerate it.

Based on economic theory and the political economics surrounding the issue, it is clear that the LCT is primarily a redistributionary tax that takes from the supposed wealthy few and gives to the not-so-wealthy many, albeit in a very inefficient manner. While it is far from being the “Robin Hood” of taxes (take from the rich and give to the poor for the unambiguous good of society), it is accepted by a largely silent majority of Australians and opposed by a noisy few.

While the tax does function as a rudimentary revenue raising device its inefficiencies and the distortions it creates support a conclusion that it should be removed and replaced with a model which takes the recommendations of the Henry Tax Review (2010) into consideration.

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