

# Chapter Three

## Economic and social impact of high fuel prices

### Introduction

3.1 Recent sharp rises in the price of oil have served to demonstrate that there are significant sectors within Australian society who have limited capacity to cope with sustained high oil prices.

3.2 Submissions and evidence to this inquiry on the effects of high fuel prices were mostly qualitative and anecdotal. There appears to have been little hard research on the effects to date or the likely longer term effects.

### The effects of recent price increases

3.3 Reports show that the recent price increases in petrol have already affected the behaviour of some groups who have reportedly reduced unnecessary driving and non essential spending. Other responses also reported have included drivers moving away from larger cars to smaller cars and motor scooters becoming more popular.<sup>1</sup> Patronage of public transport has increased.<sup>2</sup>

3.4 A study by Dodson and Sipe of Griffith University has found that those Australians affected soonest and most severely are likely to be those most reliant on car transport, due to a lack of suitable alternatives. These people tend to be those in socioeconomically disadvantaged outer-suburban locations and those on the fringes of urban areas and in regional and remote communities.<sup>3 4</sup>

3.5 Further analysis by Dodson and Sipe has found that household mortgages are also spatially differentiated, with higher debt burdens in the outer suburbs.<sup>5</sup> This compounds the impacts of higher fuel prices as these contribute to inflation and result in higher interest rates. The committee was told that bank repossession of homes has increased in recent years with rising fuel prices and interest rates.<sup>6</sup>

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1 Bell D., *Submission* 29, p.18

2 ABC Online High fuel costs boost commuter numbers 2/09/2005 retrieved from [www.abc.net.au/news/newsitems/200509/s1451578.htm](http://www.abc.net.au/news/newsitems/200509/s1451578.htm) on 1/09/2006

3 ASPO – Australia, *Submission* 136, p.2

4 Dodson J and Sipe N *Submission* 165, attachment Dodson J and Sipe N 2005 Oil Vulnerability in the Australian City, p.23

5 Dodson J and Sipe N 2006 Shocking the Suburbs: Urban Location, Housing Debt and Oil Vulnerability in the Australian City, p.42

6 Bell D., *Submission* 29, p.19

### ***Impacts on industry***

3.6 A recent report for the US Department of Energy, the Hirsch report, notes that end use sectors that are able to switch to other fuels such as natural gas, coal and nuclear will do so but that in the transport sector there are no alternative sources that are able to compete economically.<sup>7</sup> The transport, mining, chemical, electricity generation and agricultural sectors have higher than average fuel utilisation and tend to experience significant first round effects. Construction and agriculture in particular are adversely affected by rising interest rates which tend to accompany rising fuel prices. Tourism is also adversely affected as high fuel costs reduce the amount of discretionary holiday motoring.<sup>8</sup>

3.7 Air transport is the most fuel intensive industry; hence it is expected to be the most adversely affected industry. Modelling of a permanent doubling in the world oil price, commissioned by the Queensland Government, projected air transport activity to be some 27% lower by 2016-17 than it would otherwise have been without increases in fuel price. Because increases in the price of oil are expected to result in depreciation of the Australian dollar, water transport activity is projected to be some 12% higher than the basecase level, because of its strong linkages with commodity exports.<sup>9</sup>

### ***Impacts on agriculture***

3.8 The Queensland Farmers Federation relied on ABARE data to illustrate the impact that rising fuel prices have had and are expected to have on agriculture. Farm costs are projected to rise 4.2% faster than farm gate prices in 2005/06 with farmers continuing to be price takers rather than price dictators.<sup>10</sup> They have little capacity to pass on increased fuel charges. Net farm incomes have been falling with fuel being the fastest growing cost input. Fuel costs in 2006 are double what they were eight years ago, while farm revenues have risen by just a quarter.<sup>11</sup>

3.9 The Queensland Farmers Federation told the committee of its concern that State and Federal Governments have failed to make the policy adjustments necessary to deal with the longer term implications of a permanent increase in fuel prices.<sup>12</sup>

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7 Hirsch RL, Bezdek R and Wendling R, 2005 *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*. p.25 quoting U.S. Department of Energy, Energy Information Administration. *International Energy Outlook, 2004*. April 2004.

8 PBB *Industry Risk Bulletin July 2005* retrieved from [www.ppb.com.au/webdata/resources/files/IRB\\_Oil\\_National.pdf#search=%22Industry%20Risk%20Bulletin%20%22](http://www.ppb.com.au/webdata/resources/files/IRB_Oil_National.pdf#search=%22Industry%20Risk%20Bulletin%20%22) on 01/09/2006

9 Queensland Government, *Submission* 155 attachments, p.18

10 Queensland Farmers Federation, *Submission* 120, p.3

11 Queensland Farmers Federation, *Submission* 120, p.4

12 Queensland Farmers Federation, *Submission* 120, p.6

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## Long term effects of a scenario of rising oil prices

3.10 A number of submissions raised concerns over expected impacts if the world is not prepared for peak oil. ASPO-Australia also claim that the economic and social impacts will be very serious unless we take the necessary precautions very soon.<sup>13</sup> The Hirsch report claims that only aggressive supply and demand side mitigation initiatives will allay the potential for peaking to result in dramatically higher oil prices, which would cause protracted economic hardship in the world.<sup>14</sup>

### *Macro economic impacts of rising oil prices*

3.11 The Hirsch report noted that the world wide impact of increasing oil prices is expected to be a reduction in economic growth.

Oil price increases transfer income from oil importing to oil exporting countries, and the net impact on world economic growth is negative.<sup>15</sup>

3.12 An ABARE study of the impact of rising fuel prices found that if oil prices were assumed to be 30 per cent higher, Australia's GNP [Gross National Product] would average an estimated 0.8 per cent lower than in the reference case at 2010. If oil prices were assumed to be 60 per cent higher than in the reference case, GNP was estimated to average 1.2 per cent lower than in the reference case at 2010.<sup>16</sup>

3.13 The Queensland Treasury's Office of Economic and Statistical Research has modelled a 100% increase in the price of oil and petroleum. The study found that with a permanent increase, the dominant macroeconomic feature was a decline in the terms of trade. This translated to a decline in real income for Queenslanders with a projected fall of 2.98% in real GSP [Gross State Product] by the second year of the simulation. In the long run they found real GSP was projected to recover somewhat, to a level 1.01% lower than it would otherwise have been.<sup>17</sup>

### *Impacts on Australia's Balance of Payments*

3.14 The impact on Australia's balance of payments of a growing oil deficit was discussed by a number of witnesses. ABARE argued that as Australia is a net energy exporter, a rise in the cost of oil imports would be expected to be offset to a large

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13 ASPO- Australia, *Submission* 135, , p.1

14 Hirsch RL, Bezdek R and Wendling R, 2005 *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*, p.5

15 Hirsch RL, Bezdek R and Wendling R, 2005 *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*, p.27

16 ABARE, *Submission* 166, p.6

17 Queensland Government, *Submission* 155 attachments, p.16

degree by increasing prices and demand for Australia's energy exports, to the degree that there is some substitution between energy sources available.<sup>18</sup>

### *Inflation and interest rates and unemployment*

3.15 Submissions raised the prospect of increasing oil prices impacting on inflation and hence interest rates. The Queensland Farmers Federation see higher interest rates causing most of the economic damage.<sup>19 20</sup> The impact of demand destruction on increased unemployment was also raised.<sup>21</sup>

Higher oil prices result in increased costs for the production of goods and services, as well as inflation, unemployment, reduced demand for products other than oil, and lower capital investment. Tax revenues decline and budget deficits increase, driving up interest rates. These effects will be greater the more abrupt and severe the oil price increase and will be exacerbated by the impact on consumer and business confidence.<sup>22</sup>

### ***Reduction in globalisation***

3.16 The Murdoch University Institute for Sustainability and Technology Policy expects global trade to continue in a post peak oil world, although the character of global trade is expected to change once the costs of this trade become expensive. Trade in future is likely to become more localised.<sup>23</sup>

### **The risk of supply side disruptions**

3.17 Treasury in the 2006-07 budget papers noted that given the low level of spare capacity for oil production, there remained a risk of further supply side disruptions. In particular it was concerned about the potential for instability in key oil producing countries to have a more pronounced impact than the demand driven rises experienced to date.<sup>24</sup> Treasury noted that oil demand is unresponsive to price in the short run, and modest disruptions in world supply could raise oil prices very substantially, and for some time.<sup>25</sup>

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18 Fisher B. (ABARE), *Proof Committee Hansard* Canberra 12 May 2006, p.9

19 Queensland Farmers Federation, *Submission* 120, p.6

20 Hirsch RL, Bezdek R and Wendling R, 2005 *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*, p.32

21 Bell D, *Submission* 29, p.19

22 Hirsch RL, Bezdek R and Wendling R, 2005 *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*, p.28

23 Institute for Sustainability and Technology Policy, Murdoch University, *Submission* 11, p.13

24 Treasury, *2006-07 Budget paper no 1 statement 3 - The outlook for the international economy*

25 Treasury, *2006-07 Budget paper no 1 statement 4 - Australia in the world economy*

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## Avoiding adverse impacts

3.18 The Hirsch report argues that adverse impacts from peak oil could be avoided using existing technologies if given enough lead time.<sup>26</sup> ASPO-Australia argues that many adaptations are justifiable even without peak oil concerns.

Certainly, preparing well in advance for Peak Oil is a very prudent strategy. Many of the possibilities are “No Regrets” options (those that are already justified on social, environmental, health or economic grounds).<sup>27</sup>

3.19 The Hirsch report argued that mitigation strategies would take 10 to 20 years to put in place.

## Comment

3.20 The Committee notes that there are credible concerns that markets will not respond in time to provide a smooth transition to a post peak oil world without government action. Given the uncertainty about much of the information on world oil supplies and the geopolitical instability of the oil bearing regions, there may be a risk that markets will underinvest in oil and energy technologies, resulting in economic and social hardship as supply falls below demand.

3.21 The information required to make a clear determination on whether peak oil will occur before the market can provide mitigating action is not available. The following chapters discuss possible mitigation actions that can be applied that would allow a prudent approach to managing the possibility that peak oil will result in substantially higher oil prices and a constraint on liquid fuel availability.

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26 Hirsch RL, Bezdek R and Wendling R, 2005 *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*, p.66

27 ASPO- Australia, *Submission* 135, p.10

