



**Response to the Senate inquiry into
Fuel and Energy**

August 2008

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Executive Summary

The Australian Lot Feeders' Association (ALFA) appreciates the opportunity to provide input into the Senate inquiry into fuel and energy.

ALFA's concerns in relation to fuel and energy are predominantly concerned with the impact of ethanol related Government assistance on grain and food prices. Food prices have risen around the world by 140 percent between 2002 and February 2008¹. These prices in real terms were the highest in nearly 30 years. Australia is not insulated from these food price trends given our export orientation and status as a relatively small player in international agricultural trade. Accordingly Australia's food prices have experienced similar trends.

The worlds leading analysts (World Bank, International Monetary Fund and the Organisation for Economic Cooperation & Development) are united in their conclusion that the biofuel's policies of particularly the USA and EU are responsible for the majority of these increases in food prices throughout the world. Put simply this is because Government subsidies, grants, import tariffs and other protectionist tools have encouraged farmers to divert land from food to biofuel production. The World Bank has stated that biofuels policies are responsible for 75% of the 140% increase in global food prices between 2002-2008 with higher energy and fertiliser prices accounting for only 25%. At the same time, the United Nations have stated that biofuels policies could only bring "*more hunger to the poor people of the world*" and were a "*crime against humanity*".

The food versus fuel debate has garnered increasing exposure in recent months. While much of this debate has centred on the US and EU, the food price impact of ethanol policies of Australian State and Federal Governments should not be discounted given that around \$95mill was provided to the biofuels industry in 2006/07². Notably this was more assistance per litre of ethanol than that provided to the US ethanol industry.

While Federal Government assistance and protection of the ethanol sector is undoubtedly distortionary, of most concern is the combined grain and food price impact of proposed State Government ethanol mandates. Essentially these mandates will distort grain markets as they provide a guaranteed ethanol related demand for grain which is disconnected to grain supply. This discriminates against other grain users in the market place who have to then pay inflated prices for residual grain supplies that may or may not be available. Plainly speaking mandates will create a perpetual drought with grain stocks indefinitely struggling to meet the food and fuel needs of society. With Australia's climate and hence crop production already inherently variable, the onset of climate change as predicted within the draft Garnaut report will lead to further pressures to meet such food and fuel demands.

ALFA while not opposed to ethanol production per se believes that Australian State and Federal Governments should learn from the mistakes of the US and EU and remove its assistance for food grain derived ethanol production. We contend that Government assistance to the ethanol industry;

- increases grain and food prices.
- distorts grain markets by artificially providing a competitive advantage to the ethanol industry over other users of grain in the market place
- creates ethanol industry complacency and fosters inefficiency rather than increased competitiveness
- leads to a misallocation of resources towards inefficient and unviable ethanol production
- is inconsistent with Australia's World Trade Organisation stance in support for deregulation and reduced Government protection.

Recommendation

ALFA recommends that State and Federal Governments remove their distortionary support for the grain derived ethanol sector given its clear role in increasing grain and food prices.

¹ World Bank 'A note on Rising Food Prices, 2008

² International Institute of Sustainable Development – 'Biofuels – at what cost?' 2008

Introduction

ALFA is the peak representative body for the lot feeding industry representing approximately 90 per cent of feedlot capacity in Australia. The industry is the fifth largest agricultural industry in Australia behind the grain, horticulture, grass fed cattle and dairy sectors.

The Australian feedlot industry has a value of production of approximately \$2.7billion while employing some 2000 people (all in rural areas) directly and almost 7000 more indirectly. Approximately 40 per cent of Australia's total beef supply, 80 per cent of beef sold in major domestic supermarkets and the majority of production growth in the beef industry over the last 10 years has originated from the expanding feedlot sector. More than one third of the national slaughter comes to market after being finished in feedlots and more than 60 per cent of feedlot beef is exported into premium international markets.

In this submission ALFA will make the argument that State and Federal Government support for particularly the grain derived ethanol sector will exacerbate the large distortionary impacts of international biofuels policies leading to further inflationary and interest rate pressures. This will negatively impact upon Australian consumers.

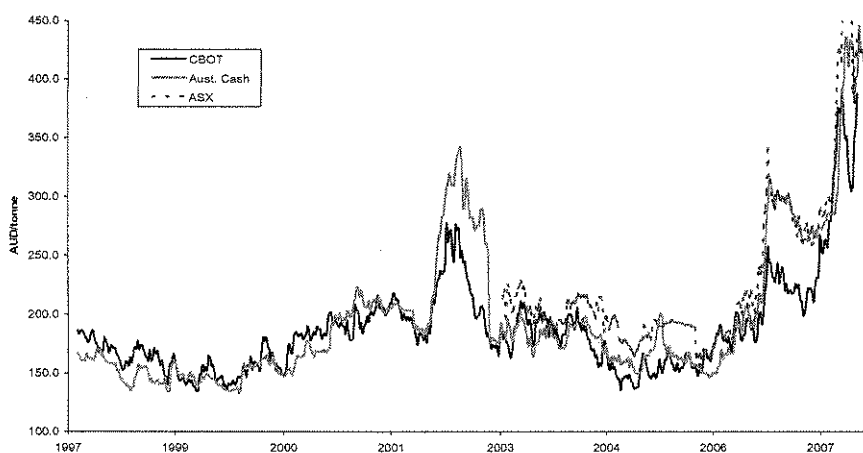
Role of foreign Government biofuel policies on Australian grain prices

Australian agriculture is export orientated with approximately 66% of production traded overseas³. This factor along with our relatively small export status in international trade means that the prices for our agricultural commodities are largely determined by world markets and the Government policies of major exporting countries.

The USA with 20% of world trade and a status as the largest exporter and importer of agricultural products largely determines the world price of such products⁴. For instance, US corn exports in 2005/ 06 represented more than 60% of world trade and US wheat exports 22% of world trade⁵.

Given that Australia exports around 80% of our wheat, our wheat prices tend to follow US wheat prices as demonstrated in the following graph. As shown, the only time our prices differ from US wheat prices is when Australian drought induced grain shortages lead to domestic premiums. As we will elaborate further in this submission, ALFA contends that State Government mandates will perpetually create such premiums over world prices to the detriment of Australian food exporting industries.

Australian grain prices follow world grain prices (ASX & Newcastle Wheat Prices, 1997-08)⁶



Also notable from the previous graph is the recent increase in wheat prices which are up to 200% above long term averages. Collectively world 'grain' prices have risen by 144% and

³ ABS

⁴ USDA website <http://www.ers.usda.gov/Emphases/Competitive/>

⁵ USDA website <http://www.ers.usda.gov/briefing/Wheat/2005baseline.htm>

⁶ Bloomberg, Profarmer, Rabobank Food & Agribusiness Research and Advisory, 2008

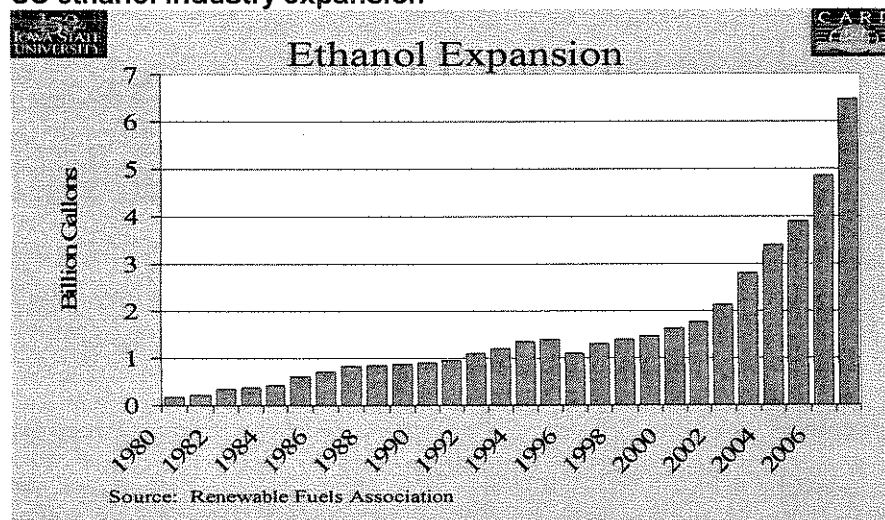
world oil seed prices 157% in the past 2 years⁷. These increases are due to a combination of factors such as higher fuel, fertiliser and energy prices, increased demand for biofuels, declining global grain stocks due to drought; and commodity investors and hedge fund activity.

Biofuels and in particular ethanol are a significant factor because currently they can only be commercially produced from biomass feedstock's (eg wheat, sugar cane, sorghum). Second generation lignocellulosic technology is still around 10 years from commercialisation. Until such technology is commercially viable, considerably more grain will be diverted from livestock and human consumption to ethanol fuel production.

It is now almost universally agreed by analysts (World Bank, International Monetary Fund and the Organisation for Economic Cooperation & Development) that the biofuels policies of the US and EU are responsible for the majority of such food price increases. The World Bank for instance believes such policies are responsible for 75% of the higher global food prices between 2002-2008 with higher energy and fertiliser prices accounting for only 25 percent⁸.

Given the US's role in influencing world grain prices, it is not surprising that it has played a major role in these grain price increases through its burgeoning corn based ethanol industry. The US's ethanol industry has increased substantially in recent years with the proportion of their corn crop diverted to ethanol production following the same trend. For instance while only 12% of the US corn crop was diverted to ethanol production in 2004, this is projected to increase to 32% in 2008⁹. In fact three-quarters of the increase in global maize production in the last three years was used to produce US ethanol with biofuels in general set to account for 10% of global crop use by 2009¹⁰. Further, the amount of ethanol produced from corn is forecast to again increase with the *US Energy Independence and Security Act of 2007* proposing to increase biofuels production from 5.4bill to 9bill gallons in 2008 rising to 36bill gallons in 2022. Trends in the EU are similar with its biodiesel sector estimated to have absorbed about 60% of member states' 2007 rapeseed oil output. This amounts to about 25% of global production and 70% of the 2007 global trade in the commodity¹¹.

US ethanol industry expansion¹²



Of most concern regarding this trend of increased grain prices is that it is primarily due to distortionary Government intervention in the form of subsidies, mandates and import tariffs. Basic economics dictates that such Government intervention in competitive markets (where no market failure exists), results in deadweight losses and prices exceeding market equilibrium

⁷ World Bank – ‘Double Jeopardy: Responding to High Food and Fuel Prices - July 2, 2008’

⁸ World Bank ‘A note on Rising Food Prices, 2008’

⁹ Collins – ‘The role of biofuels and other factors in increasing farm and food prices’, 2008

¹⁰ Cargill report ‘The future of biofuels and the impact upon agriculture’, 2007. Includes grain, oilseeds and sugar cane.

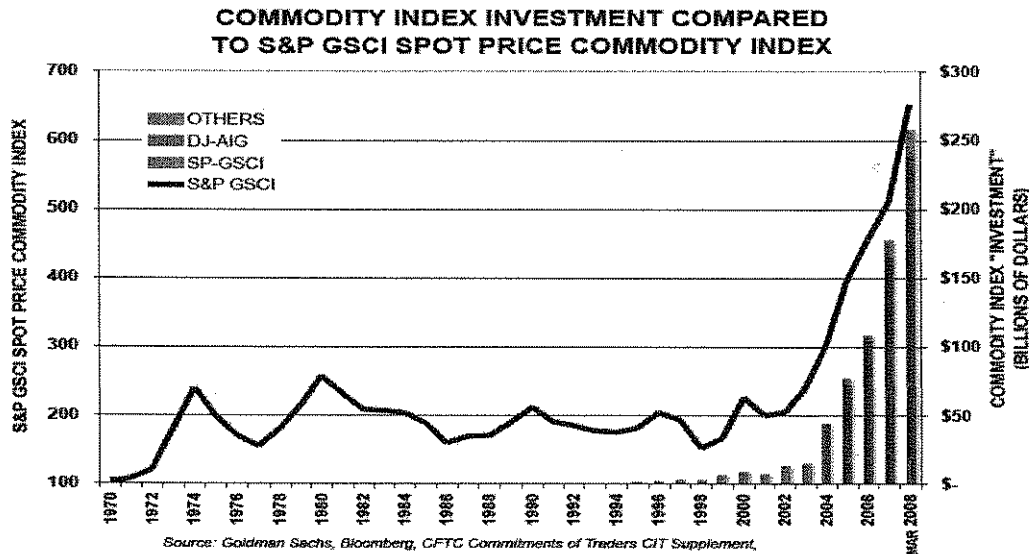
¹¹ FAO, ‘Soaring food prices: facts, perspectives, impacts and actions required’ 2008

¹² Iowa State University January 2008

levels. Given that market signals are distorted, current high grain prices will not be readily corrected by fundamental market dynamics.

The US Government provides their ethanol industry significant Government assistance via tariffs, grants, mandates and subsidies of between USD \$11-13billion per year¹³. This has led to a large misallocation of resources as this artificial monetary incentive has made corn more profitable to grow, causing farmers to shift from rice and wheat (and other crops) thereby increasing the respective market prices of all these crops.

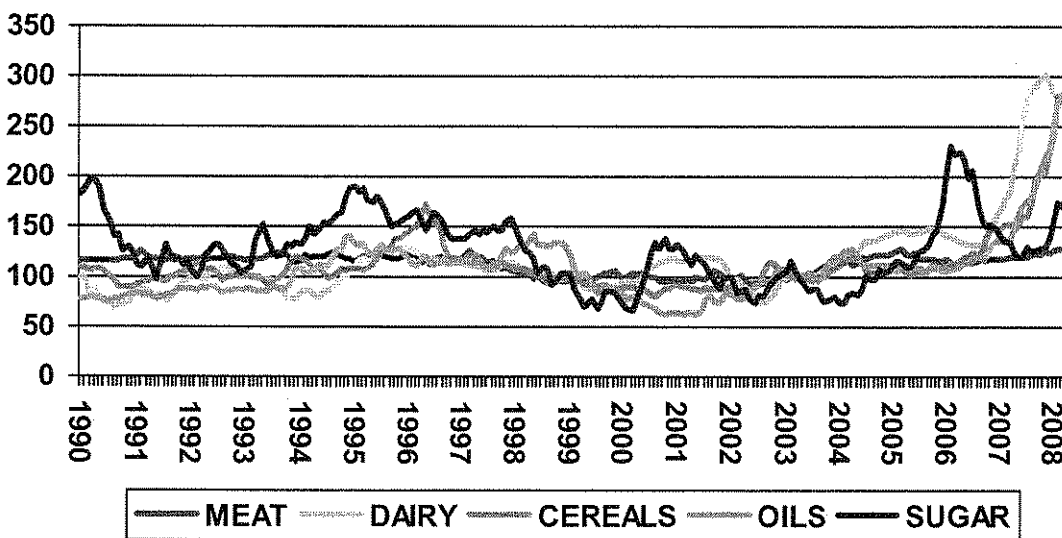
In the backdrop of an unsettled global economy, Government driven grain price increases have also led to increased non-traditional financial speculation in grain futures markets. This has exacerbated the food price impact of Government biofuels policies. For instance, the below chart shows that US speculation in commodity index trading is at historic levels rising from \$13 billion at the end of 2003 to \$260 billion in March 2008¹⁴.



Role of foreign Government biofuels policies on food prices

As a result of these increases in world grain prices, the consumer price of beef, dairy, pork and poultry products have all subsequently increased as well. In total food prices have risen around the world by 140 percent between 2002 and February 2008¹⁵.

Current world commodity prices are significantly higher than long term averages¹⁶



¹³ International Food Policy Research Institute, 'High Food Prices - the what, who and how of proposed policy actions', May 2008

¹⁴ US Senate Committee Testimony by Michael Masters 'Masters Capital Management' 2008

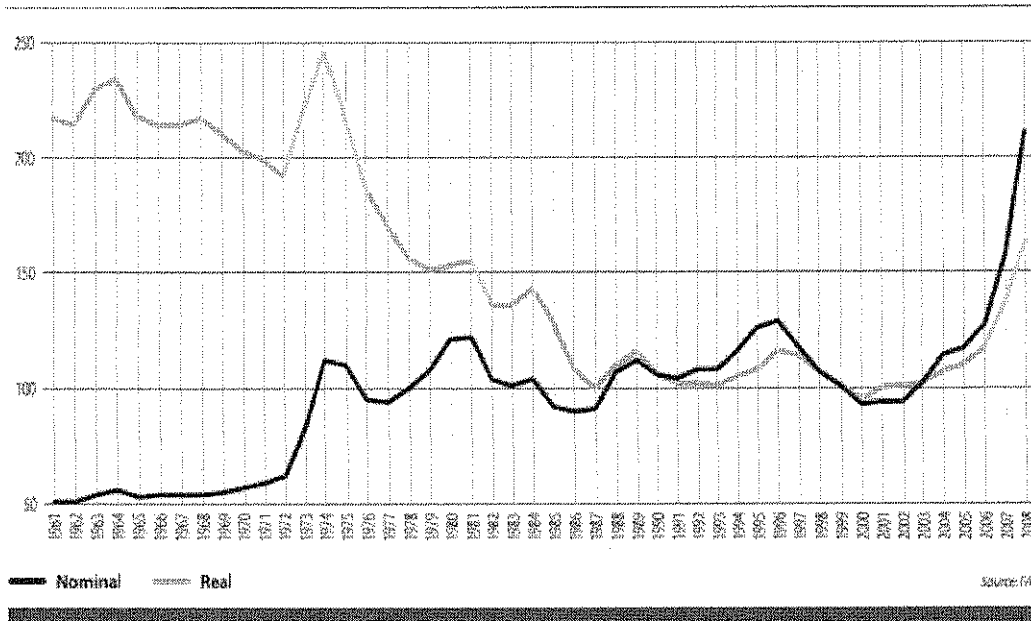
http://hsgac.senate.gov/public_files/052008Masters.pdf

¹⁵ World Bank 'A note on Rising Food Prices, 2008

¹⁶ Food & Agriculture Organisation of the United Nations, 'Climate Change, Global Food Markets and Food Security' - 2008

These price increases reverse the trend of declining real food prices over time with the International Monetary Fund reporting in April 2008 that global food prices have increased by 48% since late 2006 as seen in the following graph.

World food prices are now increasing not decreasing



In response to rising food prices, some countries are beginning to take protective policy measures designed to reduce the impact of rising world food commodity prices on their own consumers. However, such measures typically force greater adjustments and higher prices onto global markets. For instance, Argentina, Morocco, Egypt, Mexico and China have placed restraints on domestic prices. India, Vietnam, Serbia and the Ukraine have imposed export taxes or limited exports. Food riots have occurred in many developing countries, including Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Haiti, Indonesia, Senegal, and Somalia. According to the FAO, 37 predominantly developing countries are now facing food crises given the high proportion of its citizens disposable income spent on food. The UN estimates that more than 100 million people will be added to the 850 million already suffering from malnutrition as result of the spiralling food crisis. With world food demand expected to nearly double by 2050, the UN has stated that biofuels policies could only bring "more hunger to the poor people of the world" and were a "crime against humanity".

Country Government policy responses to higher food prices¹⁷

Eliminated export subsidies:

- China eliminated rebates on value added taxes on exported grains and grain products. The rebate was effectively an export subsidy that was removed.

Export taxes:

- China, with food prices still rising after eliminating the value added tax rebate, imposed an export tax on a similar list of grains and products.
- Argentina raised export taxes on wheat, corn, soybeans, soybean meal, and soybean oil.
- Russia and Kazakhstan raised export taxes on wheat.
- Malaysia imposed export taxes on palm oil.

Export quantitative restrictions:

¹⁷ Ronald Trostle (2008) Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices. ERS/USDA. WRS90801 May 2008.

- Argentina restricted the volume of wheat that could be exported even before raising export taxes on grains.
- Ukraine established quantitative restrictions on wheat exports.
- India and Vietnam put quantitative restrictions on rice exports.

Export bans:

- Ukraine, Serbia, and India banned wheat exports.
- Egypt, Cambodia, Vietnam, and Indonesia banned rice exports. India, the world's third largest rice exporter, banned exports of rice other than basmati, significantly reducing global exportable supplies.
- Kazakhstan banned exports of oilseeds and vegetable oils. Early in 2008, importing countries also began to take protective policy measures to combat rising food prices. Their objective was to make high cost imports available to consumers at lower prices. A partial list of policy changes follows.

The following countries reduced import tariffs:

- India (wheat flour)
- Indonesia (soybeans and wheat; streamlined the process for importing wheat flour)
- Serbia (wheat)
- Thailand (pork)
- EU (grains)
- Korea and Mongolia (various food commodities)

Subsidizing consumers:

- Some countries, including Morocco and Venezuela, buy food commodities at high world prices and subsidize their distribution to consumers.

Other decisions by importers:

- Iran imported corn from the United States, something that has occurred rarely — only when they could not procure corn elsewhere at reasonable prices.

The policies adopted by importing countries also changed price relationships in world markets. Their policy changes increased the global demand for food commodities even when world prices were already rapidly escalating

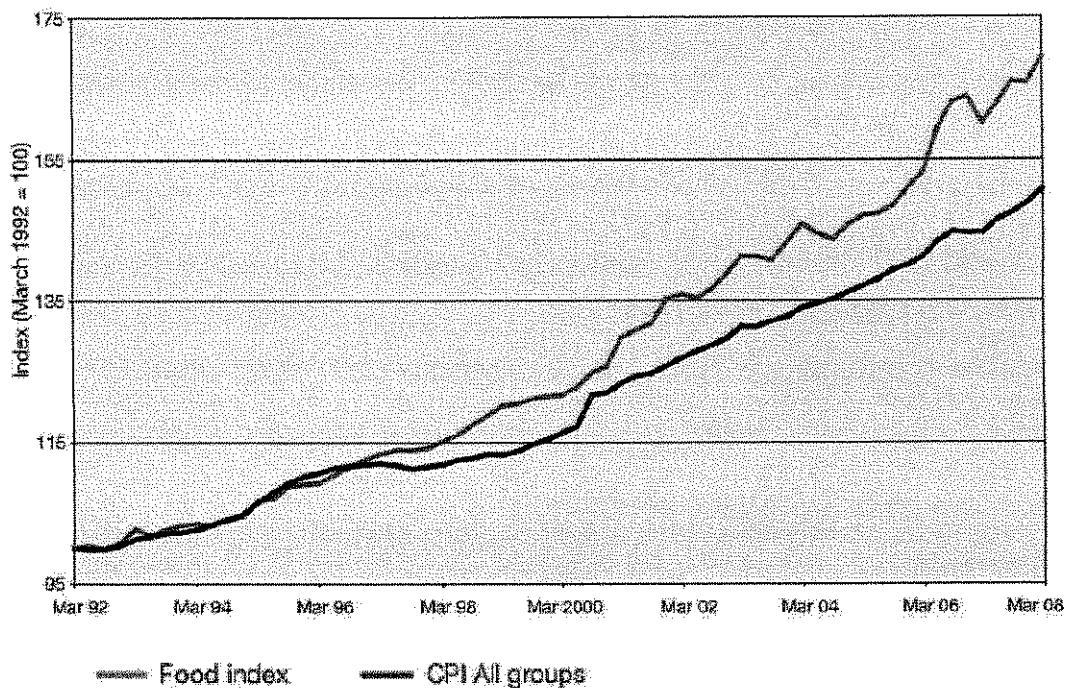
In Australia food prices have similarly increased. The latest Consumer Price Index (CPI) figures indicate that the weighted average increase in the price of consumer goods for the 2007/08 financial year was 4.5% of which 3.9% was due to food price increases¹⁸. Excluding the period associated with the introduction of the GST, this is the largest annual change since December quarter in 1995. According to the Australian Bureau of Statistics (ABS), food prices in Australia have increased by an average of 5.2 per cent *per annum* since March 2006. This compares to food price inflation of around 3.1 per cent *per annum* over the same period.

In particular, there have been substantial increases in the prices of fruit, vegetables, eggs, bread and cheese, with prices of these products increasing by between 17 and 28 per cent over the past two years. According to the recent Australian Competition and Consumer Commissions' inquiry into grocery food prices, food price inflation in Australia has exceeded food price inflation in many OECD countries¹⁹.

¹⁸ ABS report 6401.0 - Consumer Price Index, Australia, Jun 2008

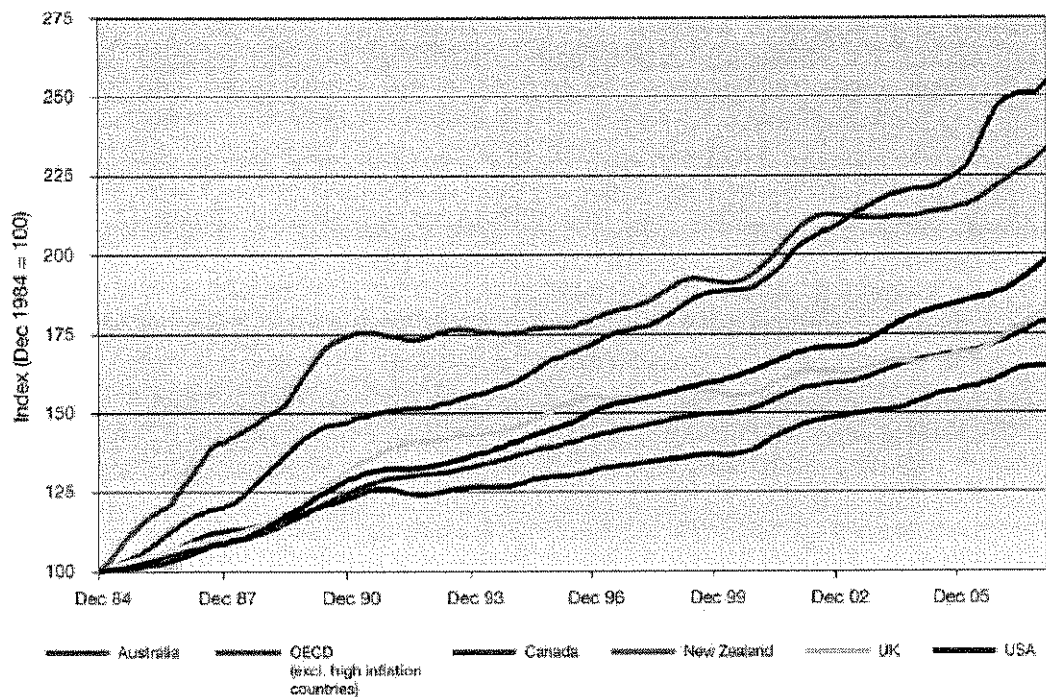
¹⁹ ACCC report, 'Inquiry into the competitiveness of retail prices for standard groceries', July 2008

Australian food price increases versus all product group prices²⁰



OECD data suggest that food price inflation has been higher in Australia than in many industrialised countries since around 1984. For example, from 2005 to 2007, prices for food in Australia increased by around 11.4 per cent compared to 5.5 per cent for the OECD (excluding high inflation countries).

Moving averages of food price indexes for selected OECD countries²¹



²⁰ ABS, (cat. no. 6401.0).

²¹ OECD, Main economic indicators, 2008.

The primary causes of Australia's food price increases are very similar to those experienced world wide —agricultural commodity price increases in international markets due to biofuels driven demand, local product shortages (brought about partly by drought) and the increasing costs of producing many food products due to sharp increases in the cost of fuel, fertiliser and water. The role of biofuels was similarly acknowledged in the recent ACCC inquiry into grocery food prices where it states that biofuels are one of the main contributors to increased world demand for grain. Importantly proposed ethanol mandates in Qld and WA along with increases in existing mandates in NSW will exacerbate the inflationary impact of grain and food prices in Australia.

Given that the primary tool for the Reserve Bank to address food price inflationary pressures is to increase interest rates, foreign ethanol policies have also been a contributing factor to Australia's interest rate increases. As many Australian home owners can attest, 12 interest rate increases have been experienced since December 2001 with the official cash interest rate moving from 4.25% to the current 12 year high of 7.25%²². These interest rate increases coincide with increases in Government biofuels assistance and food prices.

Analysts also state that Australia's high interest rate and consequential high interest rate differential between Australia and notably the US has also been a contributing factor to the high value of Australia's current exchange rate against major currencies. This is because high interest rates attract foreign capital which increases the demand for the Australian dollar causing it to appreciate. At the time of writing the Australian dollar against the US greenback was at a 25 year high. The high value of the Australian dollar against our major trading nations has further negatively impacted upon exporting industries such as the feedlot sector given that more than 60% of feedlot beef is exported into foreign markets.

Accordingly, the ethanol policies of particularly the US Government have had far reaching ramifications on consumers throughout the world.

Impact of foreign Government biofuels policies on intensive industries

Grain represents 55-60% of feedlots total cost of production - the single biggest cost in a kilo of beef, pork, milk and chicken. In a normal season 80% of Australia's east coast grain production is consumed by these intensive livestock industries with the feedlot sector being the largest user among these with 3.7 million tonnes. During drought periods this percentage increases greatly as exports diminish. These industries do not receive Government assistance yet directly compete with the Government assisted ethanol sector for grain.

Record grain prices are having a large impact upon the profitability of intensive livestock industries throughout the world. In the 2007/ 08 year it is estimated that as a result of the US ethanol program, feed costs to the US broiler industry increased by \$3.4 billion; turkey input costs \$646 million; pork input costs \$2.9 billion; cattle feeding input costs \$2.24 billion, and dairy producer input costs \$2.7 billion. These costs translated into a cost per animal are 53 cents per chicken; \$3.40 per turkey; \$38 per pig and \$117.50 per head of cattle. Overall it is estimated that the cumulative costs to the US food industry of its federal renewable fuel program will be about \$100 billion from 2005-2010²³. Ironically the high cost of grain (that the ethanol industry largely created) is now severely impacting upon the profitability of ethanol distilleries throughout the world.

Rabo Bank has stated that US feedlots lost on average \$20-30 per head in 2007. US beef giant Tyson Foods Inc recently announced a reduction in third quarter earnings of 40% with its beef division losing \$85mill and its chicken division \$44mill. The company expects to pay an additional \$550million in grain costs in 2008. Smithfield Foods, the worlds largest pork company, reported a 93% fourth quarter net income reduction and a \$129mill operating loss for its pig division due to increased feed costs.

In Australia high grain prices have led to intensive industries experiencing the most difficult trading conditions in living memory. Feedlots have been forced to reduce the numbers of cattle

²² Reserve bank website <http://www.rba.gov.au/Statistics/Bulletin/A02hist.xls>

²³ Farm Econ LLC, 'Biofuel Support Policy Costs to the U.S. Economy, March 2008.

fed and the duration that cattle are fed. Cattle numbers on feed in Australian feedlots declined by 38% from a peak of 940,097 in June 2006 to 584,472 in December 2007 before increasing slightly to 685,756 in June 2008. Current cattle on feed numbers represent only 60% of potential feedlot capacity, down from 77% from the same time last year. Over the 2007/08 year, grain fed beef exports to Japan, Korea and the US declined 11%, 4% and 53% respectively.

The recent Productivity Commission report into the Australian pork industry released in April 2008 concluded that high grain prices were the main factor leading to reported losses of \$20–\$30 per pig at the end of 2007²⁴. Notably the Productivity Commission recommended in its inquiry report that;

‘There should be a review into the overall economic impact of current and proposed policies relating to ethanol. The review, which could encompass assistance for other biofuels, should consider the impact of policies promoting ethanol production on consumers and other industries, including grain users’.

Australian State and Federal Government biofuels policies

The biofuels industry in Australia is still in its relative infancy. However, this situation is changing rapidly.

State and Federal Governments in Australia provided \$95mill in support to the biofuels industry in 2006/07, with the ethanol component providing more assistance per litre than in the US²⁵.

At a Federal Government level, assistance to meet the current 350 megalitre biofuels target comprises capital grants, excise relief from the 38.143c/litre fuel tax until 2015 and an effective tariff (ie 5% plus the 38.143c/ litre excise) on imported ethanol until 1st July 2011.

In addition to Federal Government assistance, NSW, Qld and WA State Governments have introduced or propose to introduce mandates of ethanol content in fuel to create an artificial demand for the product. If these mandates are implemented, the fuel excise exemptions provided to the industry alone will be \$400mill by 2011.

Essentially these mandates distort grain markets as they provide a guaranteed ethanol related demand for grain which is disconnected to grain supply. This discriminates against other grain users in the market place who have to then pay inflated prices for the remaining quantities of grain that may or may not be available.

Given Australia’s current variable climate and the likelihood that it will vary further with the onset of climate change, ethanol mandates will create a perpetual drought with grain supplies indefinitely struggling to meet the food and fuel needs of society. The recent draft Garnaut report believes declining crop production will be a feature of Australia’s agricultural future with their modelling indicating that wheat yields could decline by 21.8% to 2100 if no mitigating action is undertaken²⁶.

An outline of the State Government positions with respect to ethanol mandates is outlined in the following table.

State Government policies regarding ethanol mandates

NSW	2% mandate in place – 10% mandate proposed in 2011
VIC	Non-binding 5% target – Vic Government to announce its position on an ethanol mandate in its response to its biofuels inquiry in August 2008
QLD	Proposing a 5% mandate by 2010 rising to 10% soon after
SA	None at this stage
WA	5% target by 2010 to be mandated in 2011 if target is not reached
ACT	None at this stage
NT	None at this stage

²⁴ Productivity Commission report ‘Safeguards Inquiry into the Import of Pigmeat’ 2008

²⁵ International Institute of Sustainable Development – ‘Biofuels – at what cost?’ 2008

²⁶ Draft Garnaut ‘Climate change review’ report, 2008

Importantly while it is not disputed that the current 2% mandate in NSW has a marginal impact upon grain supplies and hence prices, the collective impacts of US and EU biofuels related assistance, Federal Government support and higher proposed State Government mandates in NSW and other states will increase grain and food prices further into the future.

To gauge these impacts, one need only look at the quantity of grain required to meet these proposed mandates. The below table uses ABARE average grain production data over the last 7 years (ie 2001/02 to 2007/08) for those grains that can be used to produce ethanol (ie wheat, barley, sorghum and maize).

Grain required for State Government ethanol mandates²⁷

	2%	5%	10%
NSW mandate (tonnes)	329,607	824,016	1,648,033
% of states crop	4.30	10.75	21.50
QLD mandate (tonnes)	232,235	580,587	1,161,175
% of states crop	9.17	22.92	45.83
WA mandate (tonnes)	103,366	258,415	516,831
% of states crop	1.08	2.71	5.42
VIC mandate (tonnes)	266,989	667,473	1,334,945
% of states crop	5.28	13.21	26.42
SA mandate (tonnes)	74,109	185,273	370,546
% of states crop	2.18	5.45	10.91

Notably the proposed 10% ethanol mandate in NSW will remove over 21% of average annual grain production away from traditional uses while a similar mandate in Vic could remove over 26%. This will have a large impact upon grain and food prices in 'average' years while significantly increasing grain prices in years in which production is down due to drought.

ALFA contends that such Government assistance;

- a) distorts grain markets by artificially providing a competitive advantage to the ethanol industry over other users of grain in the market place
- b) leads to a misallocation of resources to an otherwise unviable and uncompetitive ethanol sector
- c) Is not only unfair but inconsistent with Australia's World Trade Organisation stance in support for deregulation and reduced Government protection.

The original arguments in support for the ethanol sector were that it improved fuel security, supported regional development and improved the environment.

While the basis of these arguments initially seemed sound, a steady stream of independently recognised reports throughout the world has since demonstrated that these supposed benefits have limited credibility. A short response to these arguments is outlined as follows;

1. Improves fuel security

The fuel security argument is flawed because currently ethanol can only be commercially produced from biomass feedstock's (eg wheat, sugar cane and sorghum) and these are affected by climatic variations. Accordingly grain derived ethanol production may actually reduce fuel security and increase our trade deficit because Australia's periods of dry weather will lead to grain shortages, reduced grain exports and potential imports of grain. A mandate for ethanol content in fuel would aggravate this situation.

The fuel produced from grain is also too small to have any significant impact on fuel needs. For instance if 100% of the US corn crop is diverted to ethanol production only 7% of its fuel needs would be met. In fact even if 100% of the world's grain production in 2007 was converted to ethanol, it would only replace the US's current fuel needs²⁸. The situation in Australia is similar – ethanol produced from our irregular grain production would only replace a negligible proportion of our fuel needs. Put another way, the fuel energy available from grain is too small to have any significant impact on the global energy supply, but it still feeds the world.

²⁷ ABARE state grain and oilseed statistics report from their website http://www.abareconomics.com/interactive/08acr_fcb/excel/cr_nsw.xls

²⁸ David Pimentel, Cornell University, 'Biofuels – energy and environmental issues, May 2007

The Centre for International Economics has stated that a mandatory national E10 Petrol and E15 Diesel blend would increase demand for feed grains by 150% over those levels demanded by livestock users in 2010. In droughts years this would require the importation of significant quantities of grain²⁹.

The most comprehensive Australian study on biofuels was undertaken by the Federal Government in 2005. Notably it concluded that *'there is currently no case for the government to accelerate the uptake of these fuels on energy security grounds. To do so would involve additional costs for consumers, with few energy security benefits'*³⁰.

The study went further.... *'reduced oil imports are only one effect of an ethanol mandate on the trade account. Any diversion of feedstock from exports or increased imports of feedstock needed to meet the mandate would increase the trade deficit'*³¹.

The recent Victorian inquiry into biofuels concluded that *'the fuel security benefits from a biofuels mandate would be marginal and negatively influenced by the impacts of drought and disease on crops such as wheat and sorghum'*³².

2. Supports regional development

The regional development argument is flawed because the jobs created by a Government assisted ethanol industry are difficult to justify and are more than offset by job losses in other more viable rural industries that compete with it for grain. For instance, ABARE has estimated that while 648 direct and indirect jobs would be generated by meeting Australia's current biofuel target of 350 megalitres by 2010, the annual cost of maintaining each of these jobs was \$321,000 per year³³. These costs would increase under an ethanol mandate.

Given that a 50,000 head feedlot employs around 65 people whereas an ethanol plant (using the same amount of grain) only employs around 40, the economic impact on agricultural regions of a mandate would be large and likely negative.

3. It is good for the environment

The environmental argument is also exaggerated because production of grain based ethanol uses almost the same amount of fossil fuel as the ethanol itself replaces. The CSIRO for instance has concluded that grain derived ethanol provides only a 1-4% green house gas benefit and only two thirds of the energy of conventional fuel (meaning more ethanol is required over the same number of km's)³⁴.

The Federal Government Taskforce on biofuels similarly concluded that *'greenhouse gas benefits alone would not warrant further assisting biofuels, given the availability of much cheaper carbon reduction options'*³⁵.

Carbon emission trading is one such option with the report *'Biofuels - at what cost?'* by the International Institute of Sustainable Development' concluding that *State and Federal Government biofuels industry assistance could achieve 100 times the reduction in greenhouse gases if it were instead used to purchase CO2 equivalents through the Chicago Climate Exchange'*³⁶.

On the basis of the above arguments ethanol advocates argued that the industry should receive 'infant industry' type assistance to help get the industry off the ground. However this argument is similarly flawed because history has demonstrated that infant industry assistance leads to complacency, inefficiency and incentives to undertake 'rent seeking' lobbying behaviour to maintain such support rather than become competitive.

²⁹ CSIRO report, 'Biofuels in Australia – Issues and prospects', May 2007

³⁰ Australian Government, *Securing Australia's Energy Future*, op. cit., p. 124.

³¹ Parliament of Australia research report 'The economic effects of an ethanol mandate', executive summary

³² Victorian inquiry into mandatory ethanol and biofuels targets, Feb2008

³³ Australian Government, *Report of the Biofuels Taskforce to the Prime Minister*, op. cit., p. 115.

³⁴ CSIRO report, 'Biofuels in Australia – Issues and prospects', May 2007

³⁵ Australian Government, *Report of the Biofuels Taskforce to the Prime Minister*, op. cit., p. 7.

³⁶ International Institute of Sustainable Development – 'Biofuels – at what cost?' 2008

These arguments also hold true for ethanol industries throughout the world. In short;

- Grain derived ethanol production is not a new technology. Henry Ford's first mass-produced car, the Model T, ran on corn based ethanol while Brazil's sugar cane based ethanol industry has been operating for many decades.
- There is no ethanol industry throughout the world that has become efficient to the extent that it does not receive significant Government support. The example of Brazil (the most efficient ethanol industry in the world from an energy and cost perspective) still requires significant assistance to survive.
- If the ethanol industry cannot currently survive despite historically high oil prices then it is unlikely to be able to survive without Government assistance into the foreseeable future.

Conclusion

ALFA strongly urges Australian Governments' to learn from the mistakes of overseas countries and discontinue its assistance for grain derived ethanol production given its clear role in the significant grain and food price increases experienced in recent years.

Australian Federal and State Government assistance and protectionist intervention will only exacerbate the grain and food price impacts of foreign Government biofuels policy. Grain derived ethanol mandates like any form of Government intervention, will distort market place dynamics leading to a disconnection between grain demand and supply. Such intervention is a blunt tool and provisions within proposed State Government mandate legislation to address grain supply shortfalls will never be as transparent, timely and effective as the normal market at work. This is why the National Farmers' Federation, the Grains Council of Australia, all state farming organisations and all intensive livestock peak industry councils do not support a mandate of grain derived ethanol content in fuel.

Importantly, market dynamics cannot effectively resolve these demand and supply inconsistencies by itself. Accordingly Government intervention needs to be removed so that market forces can prevail and grain and food prices revert to equilibrium levels.

Australia's variable climate is only likely to become more volatile under projected climate change scenario's. Given this increasing influence, grain production cannot be relied upon to meet the increasing food and fuel demands of society irrespective of grain yield improvements and the future introduction of second generation ethanol production technologies. Continuing to support grain derived ethanol production while waiting for such technologies to be commercialised will only be to the detriment of consumers and intensive livestock industries.

