The implications for Australian agriculture of changing demand for animal protein in Asia.

Mick Keogh
Executive Director,
Australian Farm Institute.
Implications of changing Asian demand for animal protein

- Methodology and nations included
- Projections of future demand and trade
- Implications for Australian agriculture.
### Methodology and nations included

<table>
<thead>
<tr>
<th>Nation</th>
<th>Population (millions)</th>
<th>GDP per capita ($US ppp)</th>
<th>GDP Growth (6 year average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1,314</td>
<td>$7,198</td>
<td>9.6%</td>
</tr>
<tr>
<td>India</td>
<td>1,095</td>
<td>$3,320</td>
<td>6.7%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>246</td>
<td>$4,459</td>
<td>4.8%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>166</td>
<td>$2,653</td>
<td>5.3%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>147</td>
<td>$2,011</td>
<td>5.7%</td>
</tr>
<tr>
<td>Japan</td>
<td>128</td>
<td>$32,647</td>
<td>1.7%</td>
</tr>
<tr>
<td>Philippines</td>
<td>90</td>
<td>$4,923</td>
<td>4.6%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>84</td>
<td>$3,025</td>
<td>7.6%</td>
</tr>
<tr>
<td>Thailand</td>
<td>65</td>
<td>$8,368</td>
<td>5.0%</td>
</tr>
<tr>
<td>South Korea</td>
<td>49</td>
<td>$20,590</td>
<td>4.6%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>24</td>
<td>$11,201</td>
<td>4.7%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>20</td>
<td>$4,384</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Methodology and nations included

• Data and projections from FAO, World Bank, IFPRI, FAPRI, USDA, EU, ABS, ABARE


• Generally, net trade = projected production less projected consumption. Dairy more problematic.

• Critical factors include
  – Population and growth rates
  – GDP per capita
  – Urbanisation
  – Ageing
  – Cultural and religious factors
  – Domestic agricultural productive capacity
  – Agricultural trade barriers

• Projections do not incorporate ‘disruptive’ events
Chinese per capita food consumption

Calories per capita per day

Cereals

Meat

Australia's Independent Farm Policy Research Institute
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Projected chicken meat consumption
(2007 – 2020)

Australian annual production = 800,000 tonnes
Projected chicken meat trade
(2007-2020)

Net chicken meat trade (000s tonnes)

China, India, Indonesia, Pakistan, Bangladesh, Japan, Philippines, Vietnam, Thailand, South Korea, Malaysia, Sri Lanka
Projected pork consumption
(2007-2020)

Australian annual pork production = 400,000 tonnes
Projected pork trade
(2007 – 2020)

Projected net pork trade (000 tonnes)

- China
- India
- Indonesia
- Pakistan
- Bangladesh
- Japan
- Philippines
- Vietnam
- Thailand
- South Korea
- Malaysia
- Sri Lanka
Projected beef consumption (2007-2020)

Australian annual beef production = 2,100 kilotonnes

Australia’s Independent Farm Policy Research Institute
Projected beef trade
(2007-2020)

Projected net beef trade (000 tonnes)

China | India | Indonesia | Pakistan | Bangladesh | Japan | Philippines | Vietnam | Thailand | South Korea | Malaysia | Sri Lanka

Projected trade (2007-2020)

-1,500 | -1,000 | -500 | 500 | 1,000
Projected dairy consumption (2007-2020)

Projected dairy consumption (1000 tonnes fresh milk equiv)
Projected dairy trade (2007-2020)

Projected dairy trade (000 tonnes fresh milk equivalents)
## Projected increase in import demand

<table>
<thead>
<tr>
<th></th>
<th>Beef (000 tonnes)</th>
<th>Pork (000 tonnes)</th>
<th>Chicken (000 tonnes)</th>
<th>Dairy (000 tonnes wfme)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>370</td>
<td>814</td>
<td>594</td>
<td>690</td>
</tr>
<tr>
<td>India</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
<td>40</td>
<td>860</td>
</tr>
<tr>
<td>Pakistan</td>
<td>545</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>530</td>
<td>66</td>
<td>220</td>
<td>1,033</td>
</tr>
<tr>
<td>Philippines</td>
<td>136</td>
<td>250</td>
<td>109</td>
<td>834</td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td>33</td>
<td>166</td>
</tr>
<tr>
<td>Thailand</td>
<td>7</td>
<td></td>
<td></td>
<td>568</td>
</tr>
<tr>
<td>South Korea</td>
<td>283</td>
<td>111</td>
<td>21</td>
<td>88</td>
</tr>
<tr>
<td>Malaysia</td>
<td>59</td>
<td>68</td>
<td></td>
<td>957</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td></td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,930</td>
<td>1,180</td>
<td>1,062</td>
<td>5,196</td>
</tr>
</tbody>
</table>
Scale of projected increase in import demand

- 50% of Australia’s total dairy production
- 86% of Australia’s total beef production
- 260% of Australia’s total pork production
- 140% of Australia’s total chicken meat production
**Projected increased feedgrain demand**

<table>
<thead>
<tr>
<th>Product</th>
<th>Feed requirement (kg DM)</th>
<th>Projected production increase</th>
<th>Feed requirement (Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (1 litre)</td>
<td>1.8</td>
<td>72</td>
<td>148</td>
</tr>
<tr>
<td>Beef – 1 kg liveweight</td>
<td>6.0</td>
<td>5.6</td>
<td>37.3</td>
</tr>
<tr>
<td>Pork - 1 kg liveweight</td>
<td>1.4</td>
<td>16.4</td>
<td>25.5</td>
</tr>
<tr>
<td>Chicken – 1kg liveweight</td>
<td>1.8</td>
<td>7.3</td>
<td>14.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>225</strong></td>
</tr>
</tbody>
</table>

“Globally, there will need to be an expansion of grain and fodder production of between 350 – 450 Mt, and an increase in oilseed production of between 150 – 200 Mt per annum by 2020.”
World grain production

- Global ‘business as usual’ will only generate between 20 and 30% of projected future feed demand.

Source: ABARE 2007
The feed and fuel challenge

Source: Goldman Sachs 2007
Availability of arable land

Area of Arable Land (ha per capita)
General conclusions

“While there are many uncertainties, expanding animal protein consumption by consumers in developing Asian nations will undoubtedly present major opportunities for Australian agriculture.”
Global outlook

“We believe the recent rise in agricultural prices is not a transient spike ….. (Goldman Sachs)“

“Structural changes …. may keep agricultural prices above historical equilibrium levels during the next ten years…. (OECD-FAO)”

“Agricultural income will grow by 21% (real terms) between 2006 and 2014” …. (EU)
Global price trends – plant products

- Cotton
- Sugar
- Canola
- Barley
Global price trends – Animal products
Fundamental global changes

IMF Global Food commodity index (nominal)
Australian farm commodity prices

1997/98 = 100

AUD index
USD index

Sep-83 Sep-85 Sep-87 Sep-89 Sep-91 Sep-93 Sep-95 Sep-97 Sep-99 Sep-01 Sep-03 Sep-05 Sep-07
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Implications for Australian agriculture.

- **Feedgrains and oilseeds**
  - Re-examine northern Australia potential for irrigated maize, oilseed, fodder, livestock production system.
  - Agronomic research into maize and oilseed varieties
  - Research to identify new oilseed feedstocks for biodiesel/stockfeed applications
  - Research feed wheat varieties to better meet stockfeed needs.
  - Strategic development plan for fodder industries.
Implications for Australian agriculture.

- **Fuel from crops.**
  - Australia should exercise caution in policies supporting crop-based ethanol production
  - More comprehensive research required into full impacts of ‘fuel-from-crops’ on livestock sector.
  - Biodiesel appears to have advantages over ethanol
Implications for Australian agriculture.

• **International trade**
  – Australia should aggressively pursue regional and bilateral trade agreements that create additional opportunities for expanded Australian agricultural exports to developing Asian nations.

• **Chicken meat**
  – While export opportunities are limited, the industry should carefully monitor future developments as they impact on feedgrain supplies.

• **Pork**
  – There is some potential for an improved outlook as new demand soaks up international supplies, and opportunities may arise in high-value markets.
Implications for Australian agriculture.

• Dairy
  – Enormous opportunities emerging, but resource constraints likely to limit potential growth. Moving to higher-value branded products appears the best option to increase industry value.

• Beef
  – Exciting growth opportunities, but not without competition. Defending high-value markets, targeting emerging high-value markets, and taking any action necessary to maintain disease and safety status will be critical.

• Live cattle
  – Modest growth in opportunities in the medium-term
Implications for Australian agriculture.

- **Sheepmeats.**
  - Good opportunities in a limited number of markets. Marketing and product-development suited to high-value markets will be important.

- **Live sheep exports.**
  - Increasing competition emerging for Middle-East markets. Some potential for new markets in Asia, although the industry faces a number of emerging challenges.
What of the future?

• Animal protein and fuel demand creating a very positive medium term price outlook

• Australian agriculture will not win a “commodity drag race” with developing nation exporters.

• A focus on quality and the needs of affluent Asian consumers will be the key to a successful new era of farm profitability.
China has a growing appetite for quality meat — and our beef and lamb fit the bill.

Australia has won a stranglehold on the meat import business to China with its various high-profile deals — now even their menus are featuring our lamb and beef. Large orders for 300 tonnes of lamb and beef from Australia have recently been received by China, and the sealed deals left our country’s meat market seriously and been prepared to stick with it for the long term.

The growing business in China is all about relationships. Australians have recognised this.

Tim Loxy, the general manager of Elders in China, moved with his wife and two sons to Shanghai six months ago. It has been an exhilarating journey for all.

QUALITY IS MORE IMPORTANT THAN QUANTITY

We are only dealing with 15 of them at the moment and they are using huge quantities, they have gone mad for Australian meat. They’re eating it like crazy. "The Chinese are different, they like quality. We used to do the Sydney meatworks on his way to the airport, following city meetings, to buy produce to take home to Shanghai.

"He and I started talking in November last year, mainly about Vic’s Meat and its emphasis on quality and personal service, and it went from there," Puhanic says. "Look at it, China has the Olympics next year, it’s a growing economy and Asians have a thirst for the Western products, whether it’s whiskey or shoes. The seed was planted.

"There was a business reason and a personal reason to do it. When you think about it, stalls and wet markets have customarily bought them."
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