



CENTRE FOR  
INTERNATIONAL  
ECONOMICS

*An evaluation of  
MLA's market  
access program*

*Prepared for*

*Meat and Livestock Australia*

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# 1

## *Highlights*

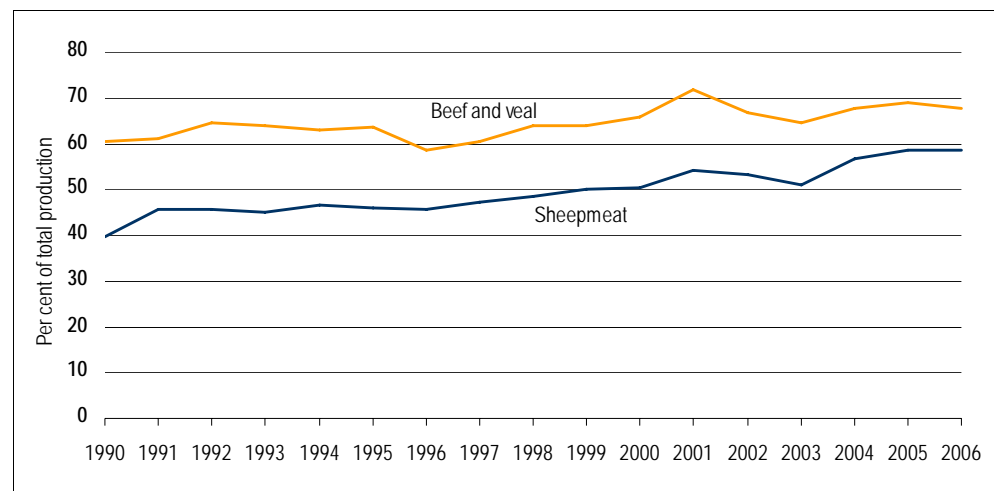
- Overseas market access is critical to the ongoing prosperity of Australia's red meat industries. Exports account for around two-thirds of total beef and sheepmeat production.
- Australia is a highly competitive supplier on the global market, but the threat of changes in market access arrangements that could place Australian product at a competitive disadvantage or restrict market access are a constant risk.
- MLA's market access program is aimed at maintaining and enhancing Australia's beef and sheepmeat access to international markets.
- This evaluation of the market access program covers the period 1998 to and 2006. Over this period, notable outcomes have included:
  - the successful South Korea beef WTO case in 2000
  - the successful US lamb safeguards WTO case in 2001
  - the Australia-United States FTA negotiation in 2004.
- These outcomes have delivered greater market access for Australian beef and sheepmeat exports than would otherwise have been the case. The contribution of MLA's market access program to achieving these outcomes has been estimated during consultations with industry stakeholders.
- The key results of the evaluation include:
  - total net benefits of \$374 million (at a discount rate of 5 per cent)
  - net benefits to the beef industry of \$329 million
  - net benefits to the sheepmeat industry of \$37 million
  - an overall benefit cost ratio for the program of estimated at 8.2
- These benefits are sensitive to a number of uncertain assumptions regarding the impact of some outcomes. Reasonable estimates of the range of these assumptions yield the following results:
  - minimum net benefits of \$311 million (benefit cost ratio of 7.2)
  - maximum net benefits of \$452 million (benefit cost ratio of 10.0)
- An increase in access to the Japanese and South Korean beef markets has the potential to provide benefits of over \$670 million (in NPV terms).

## 2

## *Importance and relevance of the market access program*

Australia's red meat industries are highly dependant on export markets. In 2005-06, the total value of beef and live cattle exports was almost \$5 billion, while the total value of sheepmeat and live sheep exports was over \$1.5 billion. The domestic market for red meat is relatively static and mature and as such, opportunities for growth in sales are largely found in overseas markets. Exports account for around 60 per cent of total sheepmeat production and almost 70 per cent of total beef production. The dependence on export markets has been steadily increasing since 1990 from 40 per cent for sheepmeat and 60 per cent for beef (see chart 2.1).

### 2.1 Australia's red meat industries are highly dependant on exports



Data source: GMI database.

Because of this dependence on export markets, market access is a critical issue for the beef and sheepmeat industries. Australia is highly competitive on the global market, but the threat of changes in market access arrangements that could place Australian product at a competitive disadvantage or restrict market access are a constant risk. Sometimes these threats are in the form of conventional barriers to trade such as tariffs and quotas, but the threat and use of non-tariff barriers such as sanitary and phytosanitary (SPS) measures and anti-dumping measures are becoming

increasingly popular. Other restrictions on market access such as preferential trade agreements with other countries can also adversely affect Australia's red meat industries.

## Program objectives

The overall objective of MLA's market access program is to ensure that existing right of access for Australian beef and sheepmeat to international markets are at least maintained and, where possible, improvements to access conditions are secured (MLA 2006). Table 2.2 outlines the objectives of the subprograms for beef and sheepmeat.

### 2.2 Subprograms for beef and sheepmeat market access

<i>Sub-programs</i>	<i>Objectives</i>
Defence and improvement of conditions of access to overseas markets	To both defend existing market access conditions in overseas markets and, where possible, to improve these conditions through the elimination or reduction of economic or technical barriers to trade in beef, live cattle and sheepmeat.
Market access research	To conduct research into the impact of access barriers on the Australia cattle, beef and sheepmeat industries and into strategies for removing these barriers.

Source: MLA, 2006.

MLA's key performance indicators (KPI's) for the market access program 2006-07 are:

- maintain existing rights of access into markets;
- reduce trade barriers in at least one market (beef or sheepmeat); and
- ensure Australian government negotiators are aware of and acknowledge the priorities of the red meat industry industry for the World Trade Organization (WTO) Doha round and Free Trade Agreements.

The market access program differs from many of MLA's other activities, in that it doesn't have a significant public benefit element. Most of the benefits of market access activities are captured by the relevant industries. Consequently, much of the market access budget is funded out of industry levies, which is consistent with the Australian government's approach to matching R&D funding. The only National Research Priority of the Australian government that the market access program could justifiably fit into is 'understanding our region and the world' under broad priority of 'Safeguarding Australia'.

Market access issues also highlight the importance of food safety and animal health in maintaining Australia's advantage over its competitors in key markets. Australia's geographical position allows it significant natural protection from infectious disease, but significant resources are devoted to animal health, food safety and quality assurance both within other MLA programs and within government. These investments reflect the evolving global market where greater emphasis is being placed on areas such as traceability and food safety to maintain market access. While this evaluation doesn't take into account the impact of these programs, they undoubtedly play a significant role in enhancing Australia's reputation and maintaining market access.

## **This evaluation**

This evaluation is broad in scope. It is an ex-post or after-the-fact evaluation of MLA's market access program since the inception of MLA in 1998. It has a dual purpose of evaluating the contribution of the market access program to Australia's red meat industries over the period and also illustrating the application of the evaluation framework developed in 2005. Because of the broad nature of the activities within the program, major activities are classified by region, and quantified where possible using the Global Meat Industries (GMI) model<sup>1</sup>.

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<sup>1</sup> See chapter 5 for further details.



# 3

## *What did the market access program do?*

This section outlines the major activities undertaken under the market access banner between 1998 and 2006. This evaluation, being an ex-post, this program is currently in the evaluation phase. The program encompasses the key overseas regions, including North America, Europe, Asia and the Middle East.

The market access program is also linked with the food safety program. Market access, particularly in relation to SPS issues, relies heavily on reliable information that is credible to regulators and users in export markets. While negotiations and development of protocols largely takes place within the market access program, information underpinning these agreements often comes from the food safety program.

### Investment by MLA

Table 3.1 shows the annual investment by MLA in the market access program since 1998 split into investment on beef and sheepmeat.

#### 3.1 MLA investment in market access program

	<i>Beef</i>	<i>Sheepmeat</i>	<i>Total</i>
	\$m	\$m	\$m
1998-99	3.61	2.41	6.02
1999-00	3.89	2.59	6.48
2000-01	4.17	2.78	6.96
2001-02	3.96	2.64	6.60
2002-03	4.19	2.79	6.99
2003-04	3.85	2.57	6.42
2004-05	3.89	2.59	6.48
2005-06	3.15	2.10	5.24

Source: MLA.

Overall, the total nominal expenditure by MLA in the market access program between 1998 and 2006 was \$51.2 million. In present value terms, this is equivalent to \$50.5 million in 2006 dollar equivalents assuming a discount rate of 5 per cent.

## Program outputs

The major activities undertaken within the market access program between 1998 and 2006 are effectively the 'outputs' of the program, and encompass a range of activities including research on trade restrictions, advocacy in overseas markets, representation to and collaboration with the Australian government and collaboration with relevant overseas organisations. Activities are grouped by the following regions:

- North and South America
- Asia
- Europe
- Middle East.

Given that the outputs of the market access program are activities that are undertaken with the goal of improving or maintaining market access in export markets, a slightly different approach to the evaluation is taken than in some other cases. For example, R&D projects or programs within MLA might generate new technology or an improvement in existing technology, or provide new information as an output, which can then be adopted by farmers to generate increased returns as an outcome. With market access, the 'adoption' is reflected in whether or not a particular activity or effort actually generates an increase in access or maintains access above what it would otherwise have been. Given the nature of market access issues, identifying the outputs is by necessity a more descriptive process. The information that follows draws significantly on the monthly summaries of market access activities that are prepared for industry stakeholders and the MLA board.

### *North and South America*

North America is a particularly important market for Australian beef and sheepmeat. Historically the United States, along with Japan, has been the major export destination for Australian beef. The United States is also the major destination for sheepmeat exports, including an increasingly important market for high value lamb exports. Table 3.2 highlights average export quantities and values to key North and South American markets in 2005 and 2006.

### 3.2 Exports to North and South American markets

	<i>Beef</i>		<i>Sheepmeat</i>	
	<i>Volume</i>	<i>Value</i>	<i>Volume</i>	<i>Value</i>
	Kt cwe	\$m	Kt cwe	\$m
United States	468.4	1 209.2	78.7	379.8
Canada	13.1	39.4	7.4	28.3
Mexico	3.1	8.4	14.2	37.8

Source: GMI database.

Given the importance of the United States as an export market, it is unsurprising that significant effort is devoted to maintaining market access and looking for opportunities for increasing access. In addition to this, Canada has been a relatively large importer of Australian beef, and Mexico imports sheepmeat from Australia. Specific program activities in North and South America are described below.

#### *US lamb safeguards WTO case*

In response to increasing imports of lamb from Australia and New Zealand, the United States imposed a tariff rate quota (TRQ) safeguards on Australian lamb imports on 7 July 1999 under section 201 of the trade act claiming serious injury to the domestic industry. The details of the TRQ are shown in table 3.3.

### 3.3 US lamb safeguard TRQ's

<i>Time period</i>	<i>Total quota</i>	<i>Allocations</i>	<i>In-quota tariff</i>	<i>Out-of-quota tariff</i>
22 July 1999 – 21 July 2000	31 851t	<ul style="list-style-type: none"> <li>▪ Aus: 17 140t</li> <li>▪ NZ: 14 482t</li> <li>▪ Other: 230t</li> </ul>	9 per cent	40 per cent
22 July 2000 – 21 July 2001	32 708t	<ul style="list-style-type: none"> <li>▪ Aus: 17 601t</li> <li>▪ NZ: 14 871t</li> <li>▪ Other: 236t</li> </ul>	6 per cent	32 per cent
22 July 2001 – 21 July 2002	33 566	<ul style="list-style-type: none"> <li>▪ Aus: 18 062t</li> <li>▪ NZ: 15 261t</li> <li>▪ Other: 242t</li> </ul>	3 per cent	24 per cent

MLA was significantly involved in the subsequent WTO case against the United States, working with the Australian government and New Zealand counterparts, as well as with the Australian government on an assistance package for Australian producers and with a coalition of advocates in the United States. The safeguards were ultimately ruled illegal by the WTO

and subsequently removed on 15 November 2001. Estimates put the cost to the Australian sheepmeat industry of the safeguard action at A\$30 million. There is also a possibility that without the WTO action, the safeguards could have continued in some form past the scheduled finish in July 2002.

#### *Australia-United States free trade agreement*

Preparations for a free trade agreement (FTA) between Australia and the United States (AUSFTA) began in 2002, with research indicating that the Australian beef industry could be among the main beneficiaries of a AUSFTA. Negotiations and preparations continued throughout 2003 and 2004, with MLA involved significantly in negotiations on behalf of Australia's beef and sheepmeat industries. Major activities during this period included:

- preparing and submitting industry position papers;
- working closely with counterparts in the US to gain support for an FTA;
- making representations to US congressional staff; and
- closely liaising with the Australian government negotiators in analysing and preparing responses to offers relating to beef and sheepmeat.

Agreement was reached during 2004 and the AUSFTA came into force on 1 January 2005. The details of changes to beef and sheepmeat access arrangements contained in the agreement were:

- immediate elimination of the US\$4.4c per kg in quota duty on beef;
- beef quota of 378 214 tonnes to increase by 20 000 tonnes in 2007, then 50 000 tonnes over the 18 years of the agreement;
- over quota tariff for beef of 26.4 per cent to fall from 2013, diminishing to zero by 2022; and
- removal of the majority of lamb and mutton tariffs.

#### *US country of origin labelling*

Country of origin labelling in the United States has been an ongoing concern for MLA. The issue was raised in 1998, when moves were made in the United States to introduce mandatory country of origin labelling on all imported muscle cuts of beef and lamb. The biggest threat to the Australian industry is mandatory labelling requirements on manufacturing beef. If these imposed significant administrative costs on the supply chain, there is

a risk that demand for Australian manufacturing beef in the US will decrease. MLA worked closely with the Australian embassy in Washington to make representations opposing the legislation. Other stakeholders including the Canadian industry, US importers and retailers were also involved in actively opposing the changes. As a result initial plans for mandatory labelling were shelved and instead, the National Cattlemen's Beef Association (NCBA) attempted to build support for a voluntary labelling scheme.

A Canadian bovine spongiform encephalopathy (BSE) case in 2003 again increased pressure for mandatory labelling. However, there remained unsolved issues including reports that put the estimated cost of implementing the program at almost \$2 billion. An October 2004 target date for implementing mandatory labelling was not met and a new target date of October 2006 was set. MLA was again involved in ongoing representations and the implementation was delayed again with a new date of September 2008 set. It looks unlikely that this date will be met, but there are a number of uncertainties around the likelihood of an introduction at some point in the future, including the impending US presidential elections.

#### *Canadian beef quota and supplementary import permits*

Pressure has been slowly building in Canada in relation to access for imported beef. This has manifested itself in two ways: the application of the supplementary import permit scheme and the structure and application of the beef import quota. There are several factors that have contributed to a rise in protectionist sentiment in Canada. The primary contributor has been the BSE cases and the subsequent impact on trade. The discovery of BSE in Canada in 2003 put significant pressure on the Canadian beef industry.

Australia operates with a specific quota of 35kt on a product weight basis, and before the BSE case, exported up to an additional 50kt under the supplementary import scheme. The BSE case and consequent interruptions in trade – particularly to the United States and Japan, increased the focus on the scheme, with a producer lobby group calling for the permanent ban of supplementary import permits.

MLA was significantly involved in discussions regarding the scheme, engaging with counterparts in the Canadian processing sector and commissioning research in Canada that showed that imports from outside of the North American Free Trade Zone (NAFTA) were not responsible for low prices and profitability in the Canadian beef industry. The issue lost

some focus recently, and MLA is hopeful that there can be some progress on lifting the suspension at some point in the future.

In addition to this, another threat emerged during the BSE crisis through a push for significant changes to Canadian import quota arrangements. This push came mainly from the Canadian processing sector. In 2000, there were calls to abolish country specific quotas in favour of a competitive quota to allow processors greater access to cheap South American imports. There was also a push to have unused quota reallocated. This move would have significantly decreased Australia's access in Canada. MLA was involved in activities aimed at defusing this threat, including engaging and working with the Canadian Cattlemen's Association. As a result, this issue has gone off the immediate agenda.

#### *Mexico preferential tariffs*

Mexico is currently among the most significant growing markets for beef. Imports have increased, from around 65kt cwe in 1990 to 313kt cwe in 2005. Almost all of this increase has come from the United States and Canada, who enjoy preferential duty free access under the NAFTA. Australia by contrast faces an effective tariff rate on beef of between 20 and 25 per cent.

MLA raised the issue of preferential access under the NAFTA in 2005, as the BSE cases in the United States and Canada resulted in the borders to Mexico being closed. This presented an opportunity to press the case for a reduction in barriers to Australian beef in Mexico. MLA was involved throughout this period in making representations and escalating the issue with the Australian government. A feasibility study is now underway into a potential FTA with Mexico. MLA has provided this study with a submission on behalf of the Australian red meat industries.

## *Asia*

The Asian region is a major destination for Australia's beef and sheepmeat exports – its proximity and market specifications make it an important trading partner. Some key points include:

- Japan and South Korea together accounted for around 57 per cent of total beef exports in 2005;
- other Asian destinations accounted for another 6 per cent of total beef exports; and
- Asian destinations account for around 25 per cent of total sheepmeat exports.

In addition, south-east Asia is also an important destination for live cattle accounting for over 80 per cent of total exports. Many markets in Asia maintain protection – in particular Japan and South Korea. But access to these markets has improved. Maintaining access to the major Asian markets is also highly dependent on disease status. Consumers in both Japan and South Korea are highly sensitive to food safety issues. South American competitors do not have access to the major markets of Japan and South Korea due to their Foot and Mouth Disease (FMD) status, which is beneficial to Australia. In addition to this, BSE scares in the United States and Canada in recent years has severely restricted exports from these countries into Japan and South Korea and increased returns to Australian exporters in these markets.

Major market access activities in the Asian region are discussed further below.

#### *South Korea WTO case*

South Korea is one of the most important export destinations for Australian beef. This is despite the fact it has traditionally been one of the most protected markets. Prior to 2000, Australia competed with other suppliers for general import quota that was 225 tonnes product weight. After 2000, this import regime changed to tariff only with a 40 per cent import tariff applied to beef according to the Uruguay round outcomes.

During 1998 and 1999, MLA was involved in conjunction with the Australian government engaged the South Korea administration regarding issues with the South Korean Simultaneous Buy and Sell (SBS) quota. In addition, South Korea was also imposing 12 restrictions on imported beef, including a requirement that shops selling imported beef must be specially registered and there were different distribution rules for imported beef. These were designed to restrict the marketability of imported beef – only 5 000 out of a 40 000 retailers were registered to sell imported beef.

As a result of failed consultations with South Korea, Australia joined the United States in a WTO case. As a result, a WTO panel produced a draft report in 2000 finding in favour of the Australian and US case – ruling that the restrictions on imported beef were illegal. South Korea appealed the WTO decision, but was ultimately unsuccessful. As a result of the WTO case, the last of the 12 restrictions was lifted in September 2001.

*South Korea restrictions on chilled beef imports*

In 1999, South Korea reinstated a ban on freezing chilled beef imports. As a result, the viability of Australia's chilled beef trade to Korea was significantly restricted. Because of the time taken to transport chilled beef and the characteristics of the cold chain, freezing is an important method of extending shelf life and improving marketability. Restrictions on freezing significantly reduce the options and flexibility of importers and ultimately demand for imported chilled beef. MLA was involved in representations to Korean authorities, arguing that the restrictions on freezing imported chilled beef was contrary to accepted international practice. Other activities included working with Food Science Australia to collate material on the issue. The ban was lifted on July 1 2002. Australia's chilled exports to South Korea in 2005 totalled 19.5kt with a value of approximately \$161 million.

*Japanese beef safeguards*

The Japanese beef industry has undergone significant liberalisation, beginning with the replacement of the quota system with a tariff based system in 1988. Tariffs were then reduced from 70 per cent in 1991 to 50 per cent in 1995. During the Uruguay round of WTO trade negotiations, tariffs fell further to an applied rate of 38.5 per cent in 2000, which is the current applied rate. As part of the Uruguay round, Japan negotiated safeguard provisions for chilled and frozen beef that allow them to raise the tariff to 50 per cent – the so-called 'snapback' tariff. This safeguard is triggered when quarterly imports increase by 17 per cent over the corresponding period in the previous year. The safeguards are maintained until the end of the financial year (ending 31 March) in which they were triggered.

MLA has devoted considerable resources to this issue, particularly since 2002, when the discovery of BSE in Japan led to a significant decrease in beef consumption and imports. As a result, despite continuing negotiations, the safeguard was triggered and a tariff of 50 per cent was implemented on imported chilled beef from 1 August 2003. This tariff was reduced on 1 April 2004 following the expiry of the safeguards.

However, the discovery of BSE in North America in 2003 provided further complications. The United States and Canada were excluded from the Japanese market and consumer sentiment towards beef fell and imports decreased sharply in 2004. This again increased the likelihood of the safeguard being triggered, particularly with the likely re-entry of US beef. However, negotiations on the re-entry of the United States stalled and the safeguard levels were not breached. However, this remains an ongoing



issue for the Australian beef industry. MLA has been campaigning for the safeguards to be removed or for the reference period to be adjusted to reflect the presence of external factors such as BSE, and has been supported by other suppliers, particularly the United States.

There has been significant success on this front. The Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) announced a revision to the calculation of the reference point on 9 March 2006. The new reference point was an average of 2002-03 quarterly imports. This was designed to mitigate the risk of the safeguards being triggered as the United States re-entered the Japanese market. The first shipments from the United States arrived in Japan in January 2006, however the discovery of a shipment with material contravening the conditions of re-entry meant that trade was again suspended. While trade from the United States has since restarted, the delay meant that the renegotiation has not had a material impact. Similar to 2006, a United States re-entry to Japan was looking likely in 2007, and the MAFF again announced a revision to the reference point calculation (to 2002-02 levels). However, again this revision looks like it will not have a material impact due to the slow recovery of US exports to Japan. This is primarily due to the strict protocols that were imposed on the US on their re-entry to the Japanese market.

MLA is continuing to be active in lobbying for reform of the safeguard measures. Ideally, this would involve removing the safeguard provisions, but if any change were to occur, it is more probable the method for calculating the reference period could be changed. However, it is still viewed as somewhat unlikely that a permanent change in policy will be achieved outside a multilateral WTO process.

#### *China's accession to the WTO*

China joined the WTO on 1 January 2002. As a result, the following tariff reductions were implemented between 2002 and 2004:

- beef tariff reduced from 39 per cent to 25.2 per cent
- beef offal tariffs reduced from 20 per cent to 15.2 per cent
- lamb tariffs reduced from 23 per cent to 16.4 per cent
- lamb offal tariffs reduced from 23 per cent to 18.2 per cent.

MLA was involved in putting forward the industry position to the Australian government during negotiations.

*Taiwan WTO accession*

Taiwan joined the WTO along with China on 1 January 2002. As a result, the following tariff reductions applicable to Australian product were implemented between 2002 and 2004:

- Beef tariffs reduced from NT\$27 to NT\$10 per kg
- Sheepmeat tariffs reduced from NT\$14.25 per kg or 19 per cent to NT\$11.3 per kg or 15 per cent, whichever is higher.

These changes under the WTO also eliminated preferential access for the United States into Taiwan. Prior to joining the WTO, Taiwan applied two tariff rates to beef – a preferential tariff to special quality beef of NT\$22.1 per kg and the standard NT\$27 per kg duty applicable to other beef. This provided an advantage to other suppliers, especially the United States, over Australia in the Taiwanese market. From 2004 onwards, all beef faces a \$NT10 per kg tariff rate. MLA was involved with the Australian government in monitoring negotiations and putting forward the industry position.

*China export plant accreditation*

Between 2002 and 2005, the Australian industry faced significant constraints in gaining export plant accreditation from Chinese authorities. Following WTO accession in 2002, the Chinese implemented a scheme where Australian red meat establishments were required to be individually accredited with AQSIQ – China's quarantine department.

The feeling within the Australian industry was that plant accreditation was being used as a barrier in place of reduced tariffs under WTO accession. MLA was involved in escalating the issue, and getting significant involvement from AQIS. In 2004, a visit by Chinese officials indicated that 10 of 16 plants inspected would be approved. However, there were still no plants approved to export offal to China – a major restriction given that China is a major offal market. At the beginning of 2005, 16 plants in total were approved for exporting. Working through AQIS and with Chinese authorities, the number of plants approved at the end of 2005 increased to 45. As a result of this, Australia now has highly favourable access to the Chinese market relative to its competitors. While exports quantities are still relatively small, Australia is now well placed to take advantage of improvements in market conditions in China in the future (although a workable protocol for tripe is yet to be established and agreed).

### *Indonesia carabeef imports*

During 1999, Indonesia was exploring options to open their market to Indian buffalo (carabeef) imports. Indonesia is a major market for Australian live cattle exports. Imports of carabeef from India had the potential to seriously threaten this market. Imports of beef from Brazil and carabeef from India have already had a significant effect on live cattle exports to several other countries in the region including the Philippines and Malaysia.

MLA pursued a strategy of encouraging the Indonesian government to maintain the restrictions on Indian carabeef on the basis of FMD in India and the risk of Indonesia losing their FMD free status. These interactions were largely political and involved working with stakeholders in Indonesia. As a result of MLA activities, the Indonesian's took the decision not to open their market to Indian carabeef. Exports of live cattle in 2005 reached almost 350 000 head at a total value of over \$400 million.

### *Australia-Thailand FTA*

Negotiations for an FTA with Thailand began in 2003. MLA submitted industry position papers, endorsed by the peak councils and liaised with DFAT and DAFF. During 2004, MLA monitored and responded to offers from Thailand.

On 1 January 2005, the Australia-Thailand FTA was implemented. The changes in market access under the agreement are shown in table 3.4

#### **3.4 Summary of changes in access under Australia-Thailand FTA**

<b>Barrier</b>	<b>Reduction</b>
Beef tariffs	▪ Immediate reduction from 51 to 40 per cent, phasing to zero by 2020
Sheepmeat tariffs	▪ Immediate reduction from 32 to 30 per cent, phasing to zero by 2010
Live cattle tariffs	▪ Immediate reduction from 10 to 6 per cent
Live sheep and goat tariffs	▪ Immediate elimination of 31 per cent tariff

Initially the Thailand offer was to reduce the beef tariff to 49 per cent on implementation. MLA and industry intervention led to the additional decrease in tariff to 40 per cent.

## *Europe*

The European Union remains one of the most protected markets for beef and sheepmeat. Latest producer support estimates from the OECD show that 68 per cent of EU beef producer income is derived from government support, while for sheepmeat, this figure is 53 per cent. Sheepmeat access to the European Union has long been a major issue for Australian producers as it is the world's largest sheepmeat export market. Australia's only substantive competitor on the global sheepmeat market is New Zealand which enjoys preferential access to the EU. Australia currently has a quota of 18 786 tonnes in the EU out of a total quota of around 284kt, while New Zealand's total allocation is 227.9kt. Securing greater market access into the EU sheepmeat market is a major focus of MLA market activities in the European region, however this has proven extremely difficult.

### *EU enlargement*

On 1 May 2004, 10 new countries joined the European Union, expanding the total membership to 25 countries. As part of this enlargement, global quotas were expanded to take account of the new members. This included the sheepmeat quota and the high quality beef quota (HQB).

As a result of enlargement, Australia's total EU sheepmeat quota increased by 136 tonnes to 18 786 tonnes. However, exports to new members prior to their joining the EU totalled around 1000 tonnes. This increase in quota received by Australia reflected the method used by the European Union to calculate the increases. New Zealand secured an extra 1 154 tonnes for a total quota of 227 854 tonnes. Australia also secured 150 tonnes access under the HQB quota. This extra access was not originally part of the EU offer, and was only included after MLA raised objections that no extra HQB quota was offered.

### *European high quality beef carcass weight limit*

Under the EU HQB quota, Australia faced a specific restriction in the form of a carcass weight limit. The quota specified that exports must be derived from carcasses weighing no more than 327kg. This condition proved restrictive, with exporters indicating that between 10 and 20 per cent of carcasses did not meet the specification. This reduced flexibility and imposed additional cost to producers' wanting to export to the European Union under the HQB quota.

Because of the restrictive nature of the limit, MLA put in considerable effort from 2002 into having the restriction removed. MLA activities included

representations in Europe, including arguing that the trend towards cuts derived from heavier carcasses was being driven mainly by end users, and an upper weight limit did not improve meat quality. Discussions continued throughout 2003 and 2004, with the European Commission showing some willingness to negotiate. MLA put a formal request to the European Commission regarding removing the limit in 2005. On March 13 2006, the specification for HQB from Australia was amended and the upper carcass weight restriction removed.

#### *Russia's accession to the WTO*

Russia has been in negotiations to join the WTO since 1993. While the accession has not yet taken place due to some differences of opinion on certain details with the United States, agreement has been reached on market access arrangements for beef. Currently, Russia operates a beef quota of 435kt. The EU holds the bulk of this quota, and Australia operates within the 70.4kt 'other' quota. Under this arrangement, Australia competes with other countries, including Brazil. In 2005, Australian beef exports to Russia totalled only 300 tonnes.

Under future access arrangements, Australia will have a specific 10kt frozen beef quota, as well as an exemption for HQB exports valued at more than 3 Euros per kg. MLA was significantly involved in securing this improvement in access, by putting the industry position forward to the Australian government and ensuring that the beef industry was prominent in negotiations.

### *Middle East*

The Middle East is an important destination for sheepmeat and live sheep exports. In 2005, the Middle East accounted for around 13 per cent of total sheepmeat exports and almost all live sheep exports. In addition to being an important destination in volume terms, the Middle East is a particularly important market in product diversity sense – it accounts for around 20 per cent of total mutton exports.

Market access issues are frequent in Middle East countries. The approach to restricting access tends to be to adopt quarantine and SPS barriers where appropriate and convenient. These can be costly to the Australian industry, and require a significant amount of effort and coordination on the part of MLA (primarily through its regional office in Bahrain).

The major market access activities relating to the Middle East over the evaluation period were:

- Saudi Arabia offal and carcass ban
- Kuwait mutton contamination case
- development of Egyptian food standards
- halal integrity issues.

These activities are discussed below.

#### *Saudi Arabia offal and carcass ban*

In 2001 Saudi Arabia placed a ban on the importation of offal products and an associated ban on spinal cord material. These restrictions were BSE related. Prior to the ban, Australian offal exports to Saudi Arabia were worth over \$5 million. The ban on product including spinal cord was restrictive on the sheepmeat carcass trade, as spinal cord material is difficult to remove from carcasses. Prior to the ban, over 50 per cent of total lamb exports to Saudi Arabia were carcasses. Following the ban, this fell to just 5 per cent in 2003. MLA were significantly involved in consultations with Saudi authorities, and worked with Food Science Australia to prepare a technical paper. Ongoing technical discussions finally led to the offal and spinal cord ban being lifted on 3 August 2003.

#### *Kuwait pork contamination case*

In January 2002, a test carried out in Kuwait identified the presence of pork in imported Australian mutton. With Kuwait being a predominately Muslim country, this finding had the potential to seriously harm Australia's sheepmeat exports to Kuwait. In response to the claims by Kuwait, MLA collaborated with the Australian government to prepare a technical response to the result. This was centred both around the veracity of the test result and the traceability of the sample used.

#### *Egyptian food standards*

Australia raised concerns regarding Egyptian food standards in 2000, primarily related to the acceptance of chilled vacuum packed meat. MLA was involved in the preparation of a technical paper for the Egyptian Standards Organisation recommending that chilled vacuum packed meat imports be accepted. Guidelines on chilled vacuum packed meat prior to this were unclear and often applied in an inconsistent way. Further consultations involving Egyptian authorities, DAFF and DFAT were

undertaken and standards were implemented to accept imports of chilled vacuum packed meat.

### *Halal integrity issues*

Halal integrity is a critical issue for exporting to countries in the Middle East. Issues related to halal slaughtering have arisen in several Middle East countries and have required high level negotiation and responses to avert market access restrictions. In 2000, the United Arab Emirates (UAE) proposed to introduce new regulations surrounding the halal certification of imported meat products. These centred mainly around detailed information on the slaughter, production and expiry periods for product and had the potential to add to the cost of exporting to the UAE. Negotiations between Australian stakeholders including MLA and the UAE ultimately led to an agreement that the slaughter and production date could be the same, which mitigated some of the burden. A new proforma for export certification to the UAE was implemented in 2001. Several delegations from the UAE have visited Australia since to ensure ongoing halal integrity.

In 2000, MLA produced a video showing halal slaughter methods in Australia. This followed concerns surrounding Australia's halal integrity in Kuwait. This video has since been used in other Middle East markets to assist in providing evidence of Australia's halal meat integrity. The video was ultimately successful in averting any loss in market access in Kuwait.

In 2004, there was also an issue with halal related inspection and audit of Australian abattoirs by Egyptian authorities. There was a concern that Egyptian authorities were looking to implement a system where each facility wanting to export to Egypt would need to be inspected and audited individually by Egyptian authorities. A delegation visit was organised and facilitated by MLA aimed at giving assurances about the robustness of Australia's inspection and audit system. Overall, the efforts to defuse potential halal based trade restrictions have been successful as no such restriction has been placed on Australian exports to the Middle East.

### ***WTO Doha round negotiations***

Preparations for the Doha round of WTO multilateral trade negotiations began in 1998. In a joint industry meeting on 24 August 1998, priorities for the coming round for Australian red meat industries were identified. They were:

- lower tariff barriers for beef in North Asia (Japan and South Korea);

- increased access to the EU particularly for sheepmeat;
- lower bound tariff rates for beef and sheepmeat in South East Asia;
- lower tariff rates for sheepmeat into South Africa;
- removal of a number of technical barriers to trade (especially in countries acceding to the WTO); and
- clarify and simplify SPS arrangements.

MLA's approach to the Doha round comprised two main activities: participating directly in negotiations, both in multilateral forums and through the Australian government and commissioning and developing research to support the case for trade liberalisation. Negotiations have been ongoing since 1999.

MLA has commissioned several studies over the course of the Doha round, mainly focused on highlighting the benefits of trade liberalisation in the red meat industries. These are used both in supporting industry positions in negotiations and in increasing the awareness and prominence of beef and sheepmeat industries in the WTO environment.

The so-called Magellan global beef liberalisation project was commissioned in 2000. The first report examined the cost of barriers to trade in beef and live cattle. This was viewed as successful in drawing attention to the beef industry, and a further two studies in the Magellan series were commissioned and released in 2003. An additional report on the political economy of beef liberalisation engaged prominent academics in the most protected beef markets to analyse the politics of beef protection and strategies for moving forward with liberalisation.

For sheepmeat, a study was released in 2003 examining priorities for trade negotiations. The report quantified the effect of current barriers and where the largest gains could be made for Australian producers. Further to this, a supplementary report was published early in 2006, which quantified the global benefits of sheepmeat trade liberalisation.

To date, no outcome has been reached in the WTO Doha round. Negotiations stalled in July 2006 talks in Geneva around a number of issues including support to agriculture. Further negotiations were attempted in June 2007 in Potsdam but broke down after disagreements between participants, particularly the United States, the European Union, India and Brazil.

The chair of the WTO agriculture negotiations circulated a revised draft WTO 'modalities' on 17 July 2007. The text is based on WTO member



governments' latest positions in the negotiations and provides an assessment of what might be agreed to for tariff cut and tariff quota expansion formulas. The aim of this draft is to restart negotiations, with indications that this could happen in September. However, given the results of previous negotiations and the seemingly wide gulf that exists between key members, it is still highly uncertain that an agreement and satisfactory completion of the round will be achieved. Another factor contributing to this uncertainty is the expiry of the fast track authority of US President George W. Bush. The fast track authority was granted under the Trade Act of 2002 and allows the President the authority to negotiate trade deals, whilst restricting US Congress to approval or otherwise. Under the Act, Congress did not have the authority to amend trade deals. The authority expired at the end of June 2007

# 4

## *Market access program outcomes*

The previous section detailed MLA's market access activities over the period 1998-2006. These were in a sense a set of outputs that the program has generated, which need to be mapped into outcomes in order to measure their benefits. In terms of the evaluation framework, this section is interested in the question 'what has changed as a result of the program?'

In general, evaluations use adoption profiles to show the time pathway that a particular output is adopted under and hence how the benefits are distributed over time. In the case of the market access program, the adoption rate is not as relevant as in other programs. The adoption rate is generally either zero or 100 per cent. A change in access or protection of existing access either happens or doesn't. More discussion is provided on this in chapter 5. There are still time profiles to consider for phasing in access improvements – for instance where a tariff rate is reduced over a period of time.

The other aspect to consider is the mitigating effect of efforts to improve market access. This is particularly true of preventative activities aimed at maintenance of market access that might seem insignificant at first glance. The political nature of protection in many export markets requires MLA to proactively and aggressively defend Australia's market access to mitigate the flow-on effect and associated risk of further more serious reductions in access. This aspect is not directly quantifiable, but should be considered as a key reason for a comprehensive approach to market access for Australia's red meat industries.

The other consideration for program outcomes is the extent to which MLA activities have contributed to each outcome. Market access activities generally represent a joint effort by a range of stakeholders including MLA, other industry groups, government and occasionally overseas counterparts. To accurately reflect MLA's contribution to achieving outcomes for the Australian red meat industry, it is necessary to estimate how much of each outcome is attributable to MLA. This is often difficult due to many factors. The intertwining nature of many issues means that it is difficult to logically separate the contribution of each stakeholder in many cases. This point was noted during consultations. However, it is not possible to do a meaningful

evaluation of MLA's market access program without estimating MLA's contribution to outcomes on an individual basis. The estimated MLA contributions presented in this report are derived from estimates provided by MLA personnel and validated by other stakeholders where possible. Where estimates for contributions are uncertain, sensitivity analysis will be used to examine the impact of the uncertainty of the results. MLA contributions are estimated in percentage terms in the following section.

## Program outcomes

The previous chapter outlines program activities on a regional basis. This section will take the same approach to outlining outcomes achieved as a result of the market access program. These outcomes will detail the specific change that occurred, the timing of the change, the 'without program' scenario and the estimated contribution of MLA to the outcome.

### *North and South America*

Table 4.1 summarises the outcomes in relation to North and South America.

#### 4.1 Program outcomes: North and South America

<b>Outcome</b>	<b>Details/timing</b>	<b>'Without' scenario</b>	<b>MLA contribution</b>
<ul style="list-style-type: none"> <li>▪ US lamb safeguards removed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Introduced in July 1999</li> <li>▪ Removed November 2001</li> </ul>	<ul style="list-style-type: none"> <li>▪ Safeguard continues until July 2002 as in schedule</li> <li>▪ 50 per cent probability that safeguard maintained a further 12 months (at the same level)</li> </ul>	50%
<ul style="list-style-type: none"> <li>▪ AUS FTA negotiated</li> </ul>	<ul style="list-style-type: none"> <li>▪ Agreement in effect 1 Jan 2005               <ul style="list-style-type: none"> <li>– In-quota beef duty eliminated immediately</li> <li>– Lamb and mutton duties eliminated immediately</li> <li>– Expansion in beef quota from 2007 to 2022</li> <li>– Reduction in over-quota tariff from 2013 to 2022</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ No change in access arrangements</li> </ul>	30%
<ul style="list-style-type: none"> <li>▪ Country of origin labelling delayed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Origin of labelling regulations originally due to be introduced in 2004</li> <li>▪ This was revised to 2006 and again to 2008.</li> <li>▪ Likelihood of introduction in 2008 uncertain.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 10% probability of country of origin being introduced in 2006</li> </ul>	10%
<ul style="list-style-type: none"> <li>▪ Easing Canadian beef quota threat</li> </ul>	<ul style="list-style-type: none"> <li>▪ Supplementary import permits suspended in 2005</li> <li>▪ A push to move from a country specific to competitive quota was defused</li> </ul>	<ul style="list-style-type: none"> <li>▪ 10% chance of a move to competitive quota from 2003 onwards</li> </ul>	20%

Source: MLA, CIE.

*Asia*

Table 4.3 summarises the outcomes for Asia.

**4.2 Program outcomes: Asia**

<b>Outcome</b>	<b>Details/timing</b>	<b>'Without' scenario</b>	<b>Industry contribution</b>
▪ South Korea WTO case win	<ul style="list-style-type: none"> <li>▪ Korea implemented a range of restrictions on imported beef in 1999.</li> <li>▪ A WTO case brought by Australia and the US ruled these restrictions illegal – the last was removed in 2001.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Restrictions to continue indefinitely. Equivalent to an additional tariff of 10%.</li> </ul>	16%
▪ South Korea chilled beef restrictions removed	<ul style="list-style-type: none"> <li>▪ In 1999 South Korea placed a ban on freezing chilled beef</li> <li>▪ MLA involved in discussions and the ban is lifted in mid-2002</li> </ul>	<ul style="list-style-type: none"> <li>▪ Restrictions continue indefinitely – 50% ongoing reduction in chilled beef imports.</li> </ul>	40%
▪ Japanese beef safeguard conditions relaxed	<ul style="list-style-type: none"> <li>▪ Beef safeguards negotiated in the Uruguay round.</li> <li>▪ These were triggered in 2003-04 following BSE scare.</li> <li>▪ MLA and other stakeholders negotiate a one-off change in the reference point calculation in 2006 and 2007. <ul style="list-style-type: none"> <li>– This ultimately had little impact as the US did not re-enter the market as expected</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ No change to reference point calculation</li> </ul>	10%
▪ Chinese WTO accession	<ul style="list-style-type: none"> <li>▪ China joined the WTO in 2002 and as a result: <ul style="list-style-type: none"> <li>– Beef tariffs decrease from 39 to 25.2 per cent</li> <li>– Beef offal tariffs decrease from 20 to 15.2 per cent.</li> <li>– Lamb tariffs decrease from 23 to 16.4 per cent.</li> <li>– Lamb offal tariffs decrease from 2 to 18.2 per cent.</li> </ul> </li> <li>▪ Reductions were phased in between 2002 and 2004</li> </ul>	<ul style="list-style-type: none"> <li>▪ No change in market access</li> </ul>	10%
▪ Taiwan WTO accession	<ul style="list-style-type: none"> <li>▪ Taiwan joined the WTO in 2002 and as a result: <ul style="list-style-type: none"> <li>– Beef tariffs reduced from NT\$27 to NT\$10 per kg</li> <li>– Sheepmeat tariffs reduced from NT\$14.25 per kg or 19 per cent to NT\$11.3 per kg or 15 per cent, whichever is higher.</li> </ul> </li> <li>▪ Reductions were phased in between 2002 and 2004</li> </ul>	<ul style="list-style-type: none"> <li>▪ No change in market access</li> </ul>	30%

(Continued next page)

## 4.3 Program outcomes: Asia (continued)

<b>Outcome</b>	<b>Details/timing</b>	<b>'Without' scenario</b>	<b>Industry contribution</b>
<ul style="list-style-type: none"> <li>▪ Chinese export plant accreditation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Following WTO accession, China implemented a system where each export plant must be individually accredited with Chinese quarantine               <ul style="list-style-type: none"> <li>– This proved highly restrictive with few plants accredited in 2004.</li> </ul> </li> <li>▪ MLA involved in escalating issue with AQIS and Chinese authorities.</li> <li>▪ By the end of 2005, 45 plants were accredited.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Limited export plant approval continues indefinitely.</li> </ul>	20%
<ul style="list-style-type: none"> <li>▪ Indonesia carabeef import restrictions</li> </ul>	<ul style="list-style-type: none"> <li>▪ During 1999, Indonesia was looking to open up to imports of Indian buffalo (carabeef).               <ul style="list-style-type: none"> <li>– This had the potential to seriously affect Australia's live cattle trade to Indonesia.</li> </ul> </li> <li>▪ MLA were involved encouraging the Indonesian government to maintain restrictions on Indian carabeef based on FMD risk.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Indonesia to allow imports of Indian carabeef from 2000.</li> </ul>	50%
<ul style="list-style-type: none"> <li>▪ Australia-Thailand FTA negotiated</li> </ul>	<ul style="list-style-type: none"> <li>▪ Australia-Thai FTA was implemented on January 1 2005 with the following changes in access:               <ul style="list-style-type: none"> <li>– Beef tariff reduced from 51 to 40 per cent immediately and phasing to zero by 2020</li> <li>– Sheepmeat tariffs reduced from 32 to 30 per cent immediately and phasing to zero by 2010.</li> <li>– Live cattle tariffs reduced from 10 to 6 per cent immediately</li> <li>– Live sheep and goat tariffs of 31 per cent reduced to zero immediately.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Beef tariff reduced only from 51 to 49 per cent on implementation.</li> </ul>	70%

Source: MLA, CIE.

## Europe

Table 4.2 summarises the outcomes for Europe.

## 4 MARKET ACCESS PROGRAM OUTCOMES

## 4.3 Program outcomes: Europe

<b>Outcome</b>	<b>Details/timing</b>	<b>'Without' scenario</b>	<b>Industry contribution</b>
<ul style="list-style-type: none"> <li>▪ Increased access on EU enlargement</li> </ul>	<ul style="list-style-type: none"> <li>▪ 10 countries joined the EU in 2004.</li> <li>▪ As a result, Australia's sheepmeat quota expanded by 136 tonnes and 150 tonnes of HQB quota.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No additional HQB quota — only extra sheepmeat quota.</li> </ul>	80%
<ul style="list-style-type: none"> <li>▪ Russian WTO accession</li> </ul>	<ul style="list-style-type: none"> <li>▪ Negotiations ongoing since 1993.</li> <li>▪ Close to agreement, with details set for beef access:               <ul style="list-style-type: none"> <li>– Australia to secure a specific 10kt frozen quota and an exemption for HQB exports valued at more than 3 Euros per kg</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ No change to access, with Australia maintaining access under a competitive 70kt quota along with countries including Brazil.</li> </ul>	80%
<ul style="list-style-type: none"> <li>▪ EU HQB carcass limit removed</li> </ul>	<ul style="list-style-type: none"> <li>▪ EU regulations specified that HQB imports be derived from carcasses weighing no more than 327kg.</li> <li>▪ Between 2002 and 2006, MLA made efforts to have this requirement relaxed.</li> <li>▪ In 2006, the EU amended the specification for HQB imports from Australia, removing the upper carcass weight restriction.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Carcass weight restriction to remain in place.</li> </ul>	80%

Source: MLA, CIE.

## Middle East

Table 4.4 summaries the outcomes for the Middle East.

## 4.4 Program outcomes: Middle East

<b>Outcome</b>	<b>Details/timing</b>	<b>'Without' scenario</b>	<b>Industry contribution</b>
<ul style="list-style-type: none"> <li>▪ Saudi Arabia offal and carcass restrictions lifted</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ban on offal and spinal cord material imports into Saudi Arabia was implemented in 2001.</li> <li>▪ MLA involved in consultations and the ban was lifted in August 2003.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ban to continue indefinitely.</li> </ul>	60%
<ul style="list-style-type: none"> <li>▪ Kuwait mutton contamination case resolved</li> </ul>	<ul style="list-style-type: none"> <li>▪ Tests on a imported Australian mutton in Kuwait identified the presence of pork.               <ul style="list-style-type: none"> <li>– Had the potential to threaten Australia's sheepmeat trade to Kuwait.</li> </ul> </li> <li>▪ MLA engaged with Kuwait officials and prepared technical papers with the Australian government. The threat subsequently eased.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Small probability of ban on Australian sheepmeat</li> </ul>	75%
<ul style="list-style-type: none"> <li>▪ Development of Egyptian food standards</li> </ul>	<ul style="list-style-type: none"> <li>▪ MLA assisted in developing Egyptian standards for accepting chilled vacuum packed meat.</li> <li>▪ Prior to this, guidelines were unclear and open to interpretation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Risk of arbitrary restrictions on meat imports, depending on the interpretation of the guidelines.</li> </ul>	45%
<ul style="list-style-type: none"> <li>▪ Maintaining halal integrity</li> </ul>	<ul style="list-style-type: none"> <li>▪ MLA involved in discussions with a number of Middle East countries on Australia's halal slaughtering methods.</li> <li>▪ This defused potential restrictions in key markets.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Risk of restrictions on exports to halal sensitive markets (especially Kuwait, UAE and Egypt)</li> </ul>	45%

Source: MLA, CIE.

# 5

## *Industry benefits from the market access program*

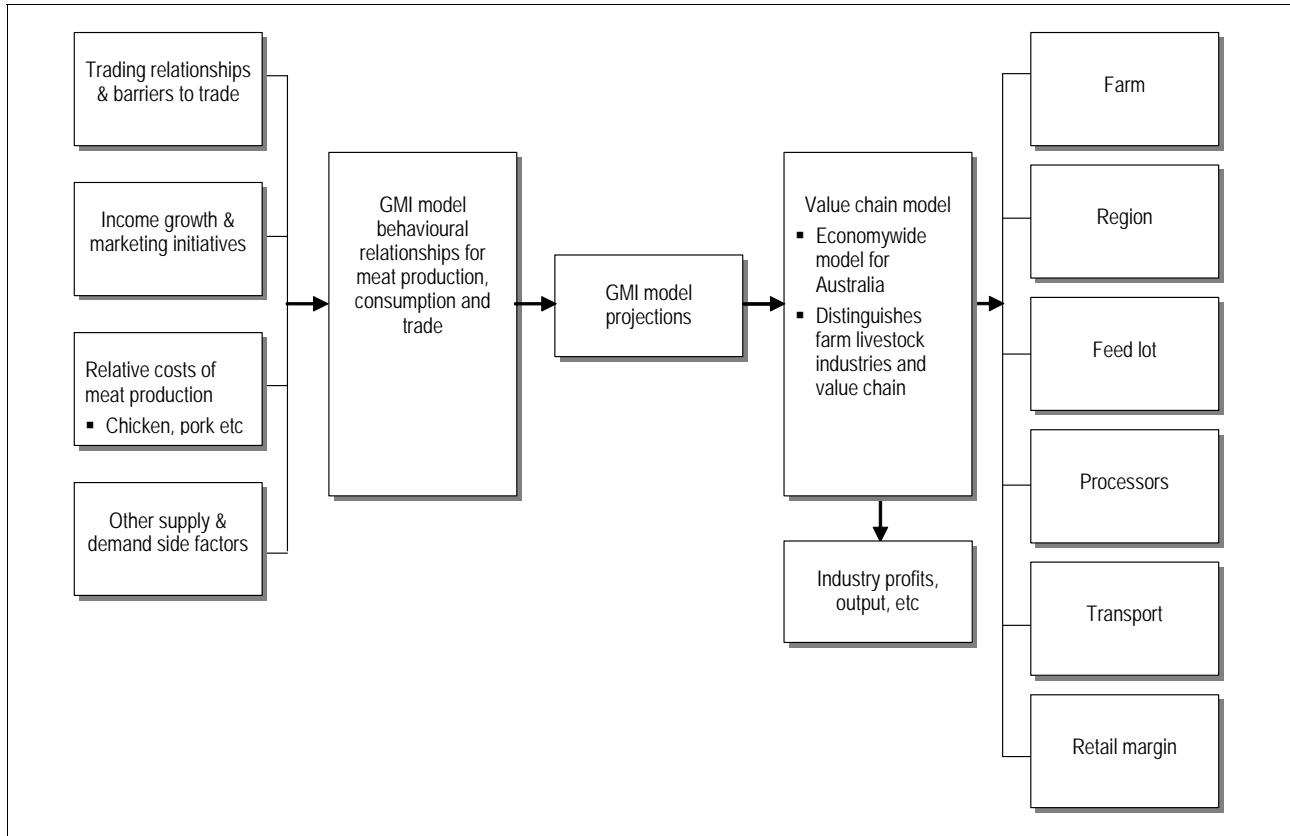
Chapter 4 summarised the outcomes that have been achieved as a result of the market access program. The next step is to estimate the benefits to the beef and sheepmeat industries as a result of these outcomes.

### **Evaluation approach**

The program evaluation framework identifies three types of benefits: economic, environmental and social. This is commonly known as the triple-bottom-line approach to evaluation. By definition, the market access program is targeted almost exclusively at improving demand in overseas markets (either through increasing market access, or defending existing market access). This means that the benefits generated by the program are largely economic.

The results presented in this chapter are generated according to the guidelines provided in economic module of the evaluation framework. This module provides a set of 'rules of thumb' for estimating industry benefits arising from changes in demand and supply. However, the economic module only distinguishes between domestic and export markets in aggregate and with the market access program focused primarily on increasing demand in specific export markets, the economic module is not sufficient for estimating its benefits. Because of this, the GMI model is linked with the integrated framework (IF) to estimate the benefits to the industry. This approach is illustrated in chart 5.1.

## 5.1 The GMI/IF evaluation framework



Source: CIE.

The GMI model provides a global representation of production, consumption, trade and prices at the bilateral level for meat (beef, sheepmeat, pigmeat and poultry) and live animals (cattle and sheep). It measures payoffs to Australian beef and sheepmeat producers in terms of changes in prices, production and gross value of production at an aggregate industry level. But the GMI model is purely a meat industry model and as such, it does not measure effects on other industries or the economy as a whole.

The integrated framework is a model of the Australian economy. It captures interactions between the red meat value chain and other sectors of the economy. These interactions include purchased input use at the farm level and value adding factors such as capital and labour. In terms of red meat sector coverage, the IF includes farm production, feedlots, processing, wholesaling, retailing, domestic consumption and exports. The IF measures the effect of changes on each industry (in terms of output, prices, net income etc.) and the economy as a whole (in terms of GDP, employment, consumption, trade balance etc.). The linked GMI/IF system as shown in chart 5.1 then links the outcomes in specific global markets with details at



the domestic industry level and broader economy. The base year for the evaluation is 1998, meaning that the stream of benefits and costs will be discounted from that point forward in real dollars.

### *Outcomes not quantified*

It should be noted that not all the outcomes presented in chapter 4 are able to be quantified. Although the GMI/IF framework is a detailed trade model it does have some limitations, including:

- some regions, including the Middle East, are not included
- offal products are not included.

Whilst it is possible to attempt to indirectly quantify outcomes in these areas, this can lead to problems with the veracity of the results. As such, this evaluation does not quantify benefits for regions and products not in the model.

In addition to this, there are a number of outcomes for which the parameters are highly uncertain. An example of this is the US country of origin labelling. Establishing a 'without MLA' scenario in this area is extremely difficult. The probability of the future introduction of country of origin labelling rules in the United States is highly uncertain. In addition to this, efforts to head off its introduction have been ongoing over the period of the evaluation. But it is virtually impossible to establish a likely scenario for what would have happened without this effort. To ensure the credibility of the results, these outcomes are also not quantified.

These outcomes should however be considered within the broader framework of MLA's market access program as noted earlier. A comprehensive program provides significant benefits in terms of mitigating future risk. It does this in two major ways:

- Limiting the ability of what appear to be relatively small market access restrictions spreading to more significant areas. This is often the case in the Middle East for example, where ongoing market access issues arise that individually might not be large, but where maintaining an open trade environment is important to mitigate the risk of future losses in market access.
- Maintaining a dialogue for issues that are ongoing and keeping the Australian industry priorities and views in the picture. The US country of origin labelling and Japanese beef safeguards cases are two obvious examples of this. It is likely that these issues will come up for discussion again at some point in the future, and MLA's continued

involvement is important to provide an avenue for arguing the industry position and reducing the risk of unfavourable outcomes.

Table 5.2 shows the outcomes that aren't directly quantified in this evaluation.

### 5.2 Outcomes not quantified

<i>Outcome</i>	<i>Reason not quantified</i>
▪ US country of origin labelling	Unknown counterfactual
▪ Japanese beef safeguards	No impact
▪ Russian WTO accession	No model coverage
▪ EU HQB carcass limit	Unknown counterfactual
▪ Chinese export plant accreditation	No model coverage <sup>a</sup>
▪ Saudi Arabia offal and carcass restrictions	No model coverage
▪ Kuwait mutton contamination case	No model coverage
▪ Egyptian food standards	No model coverage
▪ Halal integrity	No model coverage

<sup>a</sup> China is primarily an offal market for Australia, with a very small trade in fresh and frozen beef and sheepmeat.

Source: CIE.

### *Model shocks used to quantify outcomes*

In many instances the 'shocks' or changes from the baseline that are used in the GMI model are reasonably obvious. For instance, a reduction in tariff associated with an FTA is relatively straightforward. However, other outcomes are not as simple to quantify. An example of this is the Korea WTO case. There is no doubt that the restrictions that were placed on imported beef were significant, but modelling the effect of their removal is difficult, because they did not place a direct restriction on imports such as a tariff or quota. In these instances the approach used is to convert the restrictions into a quantifiable form – for example a tariff equivalent or quantitative restriction. Table 5.3 outlines the key assumptions used in this evaluation to quantify selected outcomes.

### 5.3 Model shocks used to quantify benefits

<i>Outcome</i>	<i>Assumption/shock used to quantify</i>
<ul style="list-style-type: none"> <li>▪ Korean WTO case</li> </ul>	<ul style="list-style-type: none"> <li>▪ Removal of import restrictions equivalent to a tariff reduction of 10 per cent (on top of existing tariffs)</li> </ul>
<ul style="list-style-type: none"> <li>▪ Korea chilled beef case</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ongoing restrictions would have halved chilled beef imports in Korea from Australia and the United States.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Indonesia carabeef imports</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce tariff equivalent for Indian beef imports to zero.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Canadian beef quota</li> </ul>	<ul style="list-style-type: none"> <li>▪ Maintain overall quota level and remove country specific allocations from 2003 onwards.</li> </ul>

Source: CIE.

## *Adoption rate*

The adoption rate reflects the take-up of the outputs of a particular program or project by the industry. Conceptually, this is relative easy in many cases, such as a new piece of technology that improves on-farm productivity. In this case, the adoption rate is the proportion of farmers that take up the new technology. In the case of the market access program, an important distinction needs to be made between the ‘adoption’ of a change in market access and the industry take-up of the opportunity that the change in market access creates.

The outputs of the market access program are activities aimed at increasing or maintaining Australia’s market access in export markets. These activities generate outcomes only when they are successful in an increase or maintenance of market access into a particular market. This means that the ‘adoption’ of the outputs is either zero or 100 per cent. Where future outcomes are uncertain (that is, the change in market access hasn’t happened and is less than certain), the probability of an outcome being achieved is used to reflect this uncertainty. Given that this evaluation is *ex-post*, this is not relevant in most cases.

The *impact* of the outcomes of the market access program depends on the industry take-up of the opportunities generated by the program (in terms of changes in market access). This in-turn depends on the prevailing market conditions and the associated opportunity cost of increasing exports to a particular market. The purpose of the GMI-IF model is to take account of these factors and quantify the cumulative benefit of changes in market access. An illustrative example of this is the US-FTA. The outcome in this case was the increase in market access for Australian producers as a result of the agreement (with an adoption rate of 100 per cent). The impact of the agreement depends on how the increases in access are utilised by the Australian industry. For example, the increase in the beef quota generates benefits to the industry only if the additional quota is utilised. The GMI-IF

model calculates whether the quota is utilised given a range of other factors including domestic market conditions and conditions and opportunities in other export markets.

## Projected annual benefits and costs

Table 5.4 shows the summary results of the market access evaluation. The results are split into categories (beef and sheepmeat) and also presented as an aggregate to give the total net benefits of the program.

### 5.4 Market access program results summary<sup>a</sup>

<i>Measure</i>		<i>Beef</i>	<i>Sheepmeat</i>	<i>Total</i>
NPV adjusted benefit	\$m	359.2	56.9	416.0
NPV cost	\$m	30.3	20.2	50.5
Benefit-cost ratio		11.9	2.8	8.2
IRR	%	40.2	37.6	39.6

<sup>a</sup> Net present values calculated with a discount rate of 5 per cent, 2006 dollar equivalents.

Source: GMI-IF model and CIE calculations.

The overall net benefits of the market access program are \$366 million, with a benefit cost ration of 8.3. Within this, a significant proportion of the benefits accrue to the beef industry (\$329 million against \$37 million for the sheepmeat industry). Despite this, the benefit cost ratio for the sheepmeat component is 2.8, suggesting a reasonable return on investment. Additionally, the IRR for the sheepmeat component of the program is 38 per cent, compared to 40 per cent for the total program. This largely reflects the benefits of the US lamb safeguard case, which happened relatively early in the evaluation period. The lower net benefits for the sheepmeat industry overall reflect the fact that a majority of the remaining trade barriers facing the sheepmeat industry are in the EU and South African markets, which have proven largely intractable in recent times. However a number of the outcomes not quantified, particularly in the Middle East, would have generated benefits to the sheepmeat industry.

The NPVs calculated in table 5.4 are for a period of 23 years (1998-2020), The common framework for evaluation of RDC's also specifies other timeframes for reporting benefits of 5, 10 and 20 years. Table 5.5 shows the net benefits of the program over these periods.

5 INDUSTRY BENEFITS FROM THE MARKET ACCESS PROGRAM

5.5 NPV net benefits over time<sup>a</sup>

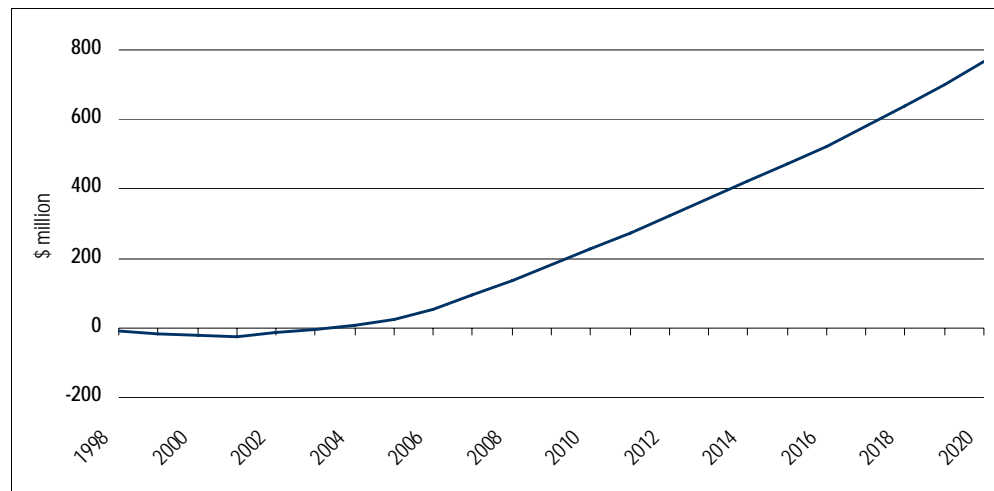
		5 years	10 years	20 years
Beef	\$m	-15.8	45.4	289.3
Sheepmeat	\$m	1.8	14.0	32.1
Total program	\$m	-14.0	59.4	321.5

<sup>a</sup> Net present values calculated with a discount rate of 5 per cent, 2006 dollar equivalents.

Source: GMI-IF model and CIE calculations.

Chart 5.6 shows the net benefit stream over time (undiscounted) in 2006 dollar equivalents, while table 5.7 shows the detailed annual stream of benefits and costs as a result of the program. Benefits are calculated as increase in value added to producers, whilst the adjusted benefit stream is represents the benefits adjusted for the probability of success, along with the contribution of MLA to the outcome.

5.6 Undiscounted stream of net benefits



Data source: GMI-IF model and CIE calculations.

**5.7 Annual benefits and costs of the market access program<sup>a</sup>**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<i>Total benefits</i>																							
Beef	0.0	0.0	2.2	9.7	24.2	15.3	70.9	84.9	128.6	155.7	185.9	170.8	177.8	184.2	190.6	197.0	203.4	209.9	221.1	234.3	246.5	258.8	371.0
Sheepmeat	0.0	0.0	0.8	1.6	32.9	38.0	1.9	0.4	1.9	5.9	7.9	6.8	9.0	10.4	11.9	13.3	14.7	16.2	17.8	19.4	21.1	22.7	24.3
Total	0.0	0.0	3.0	11.3	57.1	53.3	72.7	85.3	128.5	161.6	193.7	177.6	186.6	194.6	202.5	210.3	218.2	226.0	239.9	253.8	267.6	381.5	295.4
<i>Adjusted benefits</i>																							
Beef	0.0	0.0	1.3	4.6	0.7	-3.8	18.6	21.0	29.4	37.5	40.9	42.3	44.3	44.7	45.0	45.3	45.5	45.7	48.4	50.9	53.3	55.5	57.5
Sheepmeat	0.0	0.0	0.5	1.0	18.1	20.2	0.7	0.3	0.7	1.4	1.6	1.6	2.3	2.8	3.2	3.6	4.0	4.4	4.9	5.4	5.8	6.3	6.7
Total	0.0	0.0	1.8	5.6	18.8	16.5	19.3	21.3	30.0	38.9	42.6	43.9	46.7	47.5	48.2	48.9	49.5	50.1	53.3	56.3	59.1	61.8	64.2
<i>Costs</i>																							
Beef	4.6	4.9	5.0	4.6	4.7	4.2	4.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sheepmeat	3.1	3.3	3.3	3.0	3.1	2.8	2.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	7.7	8.1	8.4	7.6	7.8	7.0	6.9	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Net adjusted benefits</i>																							
Beef	-4.6	-4.9	-3.7	0.1	-4.0	-8.0	14.5	17.8	29.4	37.5	40.9	42.3	44.3	44.7	45.0	45.3	45.5	45.7	48.4	50.9	53.3	55.5	57.5
Sheepmeat	-3.1	-3.3	-2.9	-2.1	-15.0	17.5	-2.0	-1.9	0.7	1.4	1.6	1.6	2.3	2.8	3.2	3.6	4.0	4.4	4.9	5.4	5.8	6.3	6.7
Total	-7.7	-8.1	-6.6	-2.0	11.0	9.5	12.4	15.9	30.0	38.9	42.6	43.9	46.7	47.5	48.2	48.9	49.5	50.1	53.3	56.3	59.1	61.8	64.2

<sup>a</sup> All values in \$m (2006 equivalent).

Source: GMI-IF model and CIE calculations.

## Sensitivity analysis

The standard approach to program evaluation is to test the sensitivity of the results to particular uncertain variables. These variables typically include key assumptions used in translating an outcome to an impact and adoption rates. Given adoption rates are not relevant in the market access program evaluation, the approach taken in this analysis will be to undertake individual sensitivity analyses around number of areas:

- key outcomes for which the impacts or timing are uncertain;
- the MLA contribution to each outcome; and
- an illustrative example of potential benefits of further improvements in market access.

### *Sensitivity to uncertain impacts and timing*

The majority of the outcomes quantified in this evaluation are relatively straightforward cases for which there are no obvious parameters to perform sensitivity analysis around. These include WTO related outcomes, FTA outcomes and other market access restrictions that have already been implemented.

However, there are a number of outcomes quantified for which the impact and timing of the restriction is uncertain. These include:

- Korean WTO case: the impact of this case was quantified by using an estimate of the tariff equivalent of the restrictions imposed.
- Korean chilled beef restrictions: quantified by restricting Korean imports of chilled beef to half actual levels.
- Canadian quota issues: the probability of the removal of specific quota was estimated at 10 per cent.
- US lamb safeguards: the safeguards were assumed to remain until scheduled to finish, with a 50 per cent probability of remaining a further 12 months.

These counterfactuals were specified as a 'best bet' based on available information. However, with a level of uncertainty surrounding them, the standard approach is to ascertain the sensitivity of the results by considering a 'low' and a 'high' scenario for each uncertain parameter. Table 5.8 sets out these assumptions, while table 5.9 presents the results of the sensitivity analysis.

### 5.8 Assumptions used for sensitivity analysis: impacts and timing

<i>Outcome</i>	<i>Low scenario</i>	<i>High scenario</i>
▪ Korea WTO case	▪ Restrictions equivalent to tariff of 5%	▪ Restrictions equivalent to a tariff of 15%
▪ Korea chilled beef	▪ Chilled imports in Korea 10 per cent lower than otherwise	▪ Chilled imports in Korea 60 per cent lower than otherwise
▪ Canadian quota	▪ 5 per cent probability of competitive quota implementation	▪ 15 per cent probability of competitive quota implementation
▪ US lamb safeguards	▪ No extension of safeguards beyond scheduled finish	▪ 50% probability of extension for further 3 years (after initial 3 years)

Source: CIE, MLA.

### 5.9 Sensitivity analysis results summary: impacts and timing<sup>a</sup>

<i>Measure</i>		<i>Beef</i>		<i>Sheepmeat</i>		<i>Total</i>	
		<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
NPV adjusted benefit	\$m	312.8	413.8	49.0	88.9	361.8	502.7
NPV cost	\$m	30.3	30.3	20.2	20.2	50.5	50.5
Benefit-cost ratio		10.3	13.7	2.4	4.4	7.2	10.0
IRR	%	35.7	45.4	24.6	54.0	33.5	48.0

<sup>a</sup> Net present values calculated with a discount rate of 5 per cent, 2006 dollar equivalents.

Source: GMI-IF model and CIE calculations.

The range of estimates for the net benefits of the market access program under the assumptions in table 5.6 is \$311 million to \$452 million, with an associated benefit cost ratio of between 7 and 10. Interestingly, the variability in the industry net benefits is higher for sheepmeat than for beef. The high scenario for sheepmeat yields net benefits 86 per cent higher than the most likely scenario. This reflects the importance of the US lamb safeguards case and the damage that would have been caused had the restrictions remained in place past the scheduled finish.

### *Sensitivity to MLA contribution*

This analysis will take the straightforward approach of halving the percentage contribution to each outcome presented in chapter 4. Although these estimates have been validated with other stakeholders, looking at the sensitivity of the results to a significant reduction in contribution levels provides a useful reference point.

Table 5.10 shows the results with MLA's contribution halved.



5.10 Sensitivity analysis results summary: MLA contribution<sup>a</sup>

<i>Measure</i>		<i>Beef</i>	<i>Sheepmeat</i>	<i>Total</i>
NPV adjusted benefit	\$m	179.6	28.4	208.0
NPV cost	\$m	30.3	20.2	50.5
Benefit-cost ratio		5.9	1.4	4.1
IRR	%	27.3	11.8	24.2

<sup>a</sup> Net present values calculated with a discount rate of 5 per cent, 2006 dollar equivalents.

Source: GMI-IF model and CIE calculations.

Under this scenario, the adjusted benefits are predictably halved. Overall, this reduces the net benefits of the program to around \$158 million and the benefit cost ratio to 4.1. The rate of return is still reasonably high at 24 per cent.

### *Potential future increases in market access: an illustrative example*

Another interesting example is to look at a potential future increase in market access to see what sort of returns are still possible (assuming investment by the industry). There are a number of obvious candidates – this analysis looks at the potential benefits of a reduction in beef tariffs in Japan and South Korea from 38.5 and 40 per cent respectively to 30 per cent between 2008 and 2015. This is a relatively modest reduction, representing a realistic scenario that could be achieved within a multilateral setting like the WTO. GMI-IF model simulations show that the net present value of the benefits to the Australian industry under this scenario is calculated at over \$670 million.

The largest potential gains to the Australian sheepmeat industry from improved market access clearly lie in trade reform in the European Union. Simulations using the GMI-IF model show that a reduction in the over-quota tariff to a flat 20 per cent generate industry benefits of around \$430 million (in net present value terms).

## *References*

Meat and Livestock Australia (MLA), 2005, *MLA Industry Programs Plan 2005-06 to 2007-08*, MLA, Sydney.

MLA, *Market access monthly summaries* (various issues), MLA, Sydney.