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An evaluation of MLA's market access program

An update of the evaluation conducted in 2007

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REPORT

An evaluation of MLA's market access program

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Prepared for Meat and Livestock Australia

September 2014

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Abbreviations

AANZFTA ASEAN-Australia-New Zealand FTA

AOP Annual Operating Plan

ASEAN Association of South East Asian Nations

BCR Benefit cost ratio

CIE Centre for International Economics

DAFF Department of Agriculture

FSIS Food Safety and Inspection Service

FTA Free Trade Agreement

GMI MLA's Global Meat Industry model

JAEPA Japan-Australia Economic Partnership Agreement

KAFTA Korean-Australian Free Trade Agreement

IRR Internal rate of return

MAFTA Malaysia–Australia FTA

MLA Meat and Livestock Australia

NPV Net present value

Highlights

The Australian red meat industry is becoming increasingly dependent on access to export markets — with exports accounting for nearly 70 per cent of beef production and 60 per cent of sheepmeat production in 2013.

- Changes in market access arrangements therefore can have a significant impact on the competitiveness and profitability of Australia's red meat industry.
- In addition to representation by the Australian government, there is a strong rationale for collective industry action on market access through MLA as the industry's service provider.

MLA's current strategy is to maintain favourable market access conditions and improve access through strategic trade reform This program is co-funded by investment by levy-payers which is matched by processor contributions.

• The total investment by the market access program over the period 2006-2013 was \$29.74 million in current dollars.

As a result of program activities over this time period, notable market access improvements have included:

- the Australia-Chile FTA negotiation in 2009
- the ASEAN-Australia-New Zealand FTA negotiation in 2009
- the Australia-Malaysia FTA negotiation in 2013
- the Korea-Australia FTA (KAFTA) in 2013
- the Japan-Australia Economic Partnership Agreement (JAEPA) in 2014.

In addition, other achievements have included:

- increase in quota access for the European Union for sheepmeat and grain fed beef
- access to a pooled beef quota for the Russian Federation
- a range of market maintenance activities which MLA has contributed to in the interests of the Australian red meat industry some with less quantifiable outcomes.

MLA's Global Meat Industry (GMI) model was used to quantify the payoffs from these activities. To do so required establishing:

- the size and the timing of the change to market access for Australian exporters (for example, change in the tariff or quota) and what would have happened without concerted industry action in conjunction with MLA
- the attribution of input by MLA recognising the contribution by government and industry partners

a timeframe for the stream benefits from 2006 out to 2030 and the calculation of the present value of net benefits for the program based on changes in gross value of production to red meat producers.

Table 1 summarises the present value of benefits and costs for the market access program from 2006 to 2030.

• Over the 24 year period, the total benefits that could be delivered by these activities is valued at \$5.6 billion with beef accounting for over 90 per cent of the red meat total.

1 Summary of market access program net benefits

		Beef	Sheepmeat	Red meat
Total benefits	\$m	5 687	465	6 152
Attribution to MLA	%	21	22	21
Benefits to MLA	\$m	1 213	101	1 313
Program costs	\$m	22	11	33
Benefit cost ratio		54.6	9.4	39.9

^a Net present value of benefits and costs in 2012-13 values using a discount of 7 per cent over the period 2006 to 2030. Source: GMI model and CIE calculations.

At an average attribution level of about 20 per cent back to MLA, the total present value of benefits is \$1 313 million. This benefit is then compared to the present value of costs over the period 2006-13, valued at \$33 million.

- The expected payoff to red meat producers, in terms of the benefit cost ratio, is significant at 39.9 to 1.
- The outcome is significantly different between the levy streams the benefit cost ratio for beef is 54.6 to 1 compared to 9.4 to one for sheepmeat as most of the FTA related gains over the review period have been in beef focused export markets.

Over the timeframe 2006 to 2020 the internal rate of return for the headline analysis is:

- 47 per cent for red meat
- 58.3 and 20.7 per cent for beef and sheepmeat.

Sensitivity testing indicated that the headline results depended critically on:

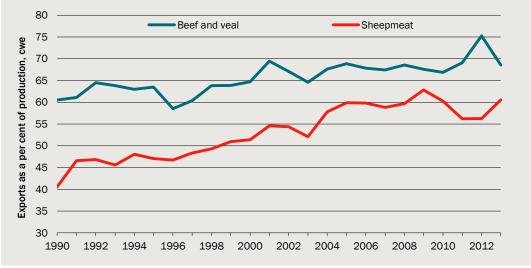
- the assumed attribution of total benefits back to MLA halving the attribution of MLA's contribution halves the benefits back to MLA
- the timeframe of the benefit stream reducing the timeframe for benefits from 24 back to 10 years dramatically reduces the benefit cost ratio from 39.3:1 in the headline analysis back to 4.6:1.

This result reinforces the importance of KAFTA (for example) where a significant proportion of the expected benefits are expected to flow to Australian exporters after 2020 as the tariff is phased out and the safeguard levels are removed under the agreement.

1 Importance and relevance of the market access program

Australia's red meat industries are highly dependent on export markets. In 2013, the total value of beef and live cattle exports was almost \$5.7 billion, while the total value of sheepmeat and live sheep exports was over \$2.0 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 1.1).

1.1 Australia's red meat industries are highly dependent 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 technical administrative requirements, sanitary and phytosanitary (SPS) measures and anti-dumping measures are becoming increasingly popular. Other impacts on market access, such as preferential trade agreements by customer markets with other countries, can also adversely affect Australia's red meat industries.

Program objectives

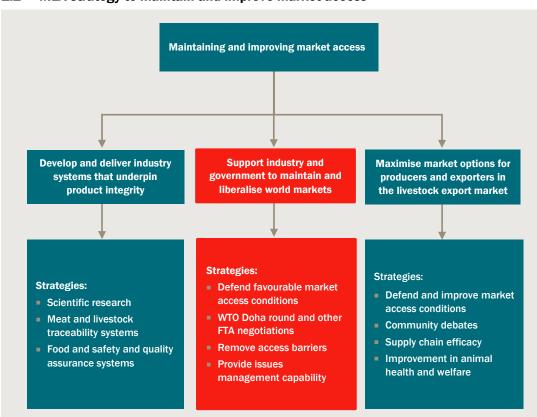
There are two components to MLA's current strategy to maintain favourable access arrangements and improve market access:

- addressing Government imposed impediments to trade including ensuring existing barriers are not increased and that new barriers are not erected
- ensuring continued consumer and trade confidence in the safety and integrity of Australian meat.

This report focusses on the first of these components, which has been concerned with securing gains from international trade reform. In particular, MLA's 2013-14 Annual Operating Plan listed the following objectives (see chart 1.2):

- defend favourable market access conditions
- contribute to positioning the industry for the WTO Doha Round and FTA negotiations.
- remove access barriers
- provide access management capability.

1.2 MLA strategy to maintain and improve market access



Source: MLA, Annual Operating Plan 2013-14.

MLA's effort to support industry and government to maintain and liberalise world markets 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, the market access budget is funded out of industry levies matched by processor contributions.

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 does not take into account the impact of these programs, they undoubtedly play a significant role in enhancing Australia's reputation and in maintaining market access.

Program activities and rational

Trade restrictive barriers can be categorised into economic, social and administrative regulations (see table 1.3 below).

1.3 Categorising trade barriers

Type of regulation	Economic	Social and technical	Administrative
Definition	 Measures that affect market entry, competition, pricing 	Measures to protect the public interest such as safety, health, environment	 Paperwork and other administrative formalities
Examples	Tariffs, quotas, domestic content requirements	Food safety measures, quality standards	 Customs classifications, clearance procedures, licensing
Principle methods to address barriers	FTAs, WTO	Bilateral negotiations, WTO	Bilateral negotiations

Source: MLA.

Table 1.4 shows how the Market Access program acts on behalf of the red meat industry by interacting with industry stakeholders (the peak councils and other industry participants) to establish priorities and then subsequent work is undertaken in conjunction with the Australian Government to prosecute the cause and ultimately secure trade reform.

1.4 Approach taken by MLA Market access

Component	Elements
Research / quantify issue	Identify impost; offensive, defensive, strategic rationale
Co-ordinate / formulate potential industry positions	 Discuss options with peak industry councils and agree on industry approach
Representations made to Government on priorities	Peak councils at political level; MLA at department level; jointly at government forums
Develop advocacy strategy	MLA in conjunction with relevant peak council(s)

Component	Elements
Build coalition of support	 Australian / international stakeholders — inform and educate; leverage overseas alliances; communication campaigns — delivered via MLA head office and overseas office network
Formulate negotiating strategy	Peak council led but based on MLA research and intelligence gathering in overseas markets; highlight commercial implications
Analyse benefits / costs from potential outcome offer	Ascertain acceptability / new trade opportunities
Implementation of agreement	Participation in Government working groups
Measurement	 Stakeholder (Government plus industry) satisfaction with MLA contribution

Source: MLA

Rationale for industry involvement

The defence of existing arrangements and achievement of improvements in market access can be classified as an industry good. That is, the red meat industry as a whole, is better off acting collectively on market access issues than the 'otherwise case' — not acting at all or acting as individuals. There are key reasons for this assessment:

- communicating, negotiating and solving market access issues is only practically possible at a government-to-government level
 - the Department of Foreign Affairs and Trade (DFAT), supported by the
 Department of Agriculture (DA), leads economic negotiations and similarly DA
 has the prime role in seeking removal of technical trade barriers.
 - industry does not sit at the negotiating table and cannot sign trade agreements.
- there are considerable costs and risks involved in an individual or group improving market access — the chance of success in resolving any particular market access issue is low
- if successful, the benefits from improving market access cannot be restricted to an individual or group and must be shared with the wider industry — the so-called 'freerider' problem.

The last two factors would typically lead to 'under-investment' in these types of activities by industry.

However, there are three key reasons for industry to invest in market access over and above the expenditure made by government:

- governments have competing priorities across a wide range of portfolios and may prioritise competing areas over red meat market access
- governments need to be guided by industry on which market access issues are of the highest priority and how these issues might be resolved to the benefit of industry
- industry can develop commercial alliances (importer and end user coalitions) in overseas markets to assist in pressuring overseas Governments to improve access conditions.

Collective or industry investment, allows a larger number of market access issues to be addressed — thereby diversifying and reducing the risk, avoiding duplication of effort and allowing presentation of a unified industry voice to government. Part of this approach involves both producers and processors funding the Market Access Program.

Reducing multilateral, bilateral and technical barriers to beef and sheepmeat access is a continuous, often slow process that comprises many iterative phases of negotiation. The process requires high-level coordination, and success depends on establishing and maintaining productive government-to-government and industry-to-government relationships.

- The Program therefore involves continuous activities intended to build and foster relationships with allies, and to wear down resistance to open market access over time, often with only gradual pay-offs.
- The lack of immediate pay-off and the fact that any outcomes (gains) are socialised, would lead to underinvestment by individual firms.

Through the Program, MLA ensures that government officials are provided with detailed information about markets and the likely commercial impacts of trade policy changes or developments in international negotiations. This industry knowledge is otherwise difficult for government officials to obtain but is vital to arguing the case for improved 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 2006. 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) model¹.

¹ See chapter 4 for further details.

2 What did the market access program do?

This section outlines the major activities undertaken to support industry and government to maintain and liberalise world markets between 2006 and 2014. The program encompasses key overseas regions, including America, Europe, and Asia.

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.

Expenditure by MLA

Table 2.1 shows the annual investment by MLA to support industry and government to maintain and liberalise world markets since 2006 split into investment on beef and sheepmeat. Overall, the total nominal expenditure by MLA in the market access program between 2006 and 2013 was \$29.74 million (MLA's Annual Operating Plan Final Report).

■ In present value terms, this is equivalent to \$32.9 million in 2012-13 dollar equivalents using the standard MLA discount rate of 7 per cent real.

	Beef	Sheepmeat	Total
	\$m	\$m	\$m
2006-07	2.27	1.74	4.01
2007-08	2.43	1.75	4.18
2008-09	2.98	1.20	4.18
2009-10	3.00	1.28	4.28
2010-11	2.84	1.22	4.06
2011-12	3.31	1.21	4.52
2012-13	3.40	1.10	4.51

Source: MLA Annual Operating Plan Final Report.

Specific program outputs

The major activities undertaken within the market access program between 2006 and 2013 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 and the Russian Federation.

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

Chile

Chile is the sixth largest country in terms of population in South America and one of the wealthiest countries in terms of income per persons. Chile's meat consumption has been growing steadily over recent years due to strong growth in income levels and demand for more expensive meat varieties such as beef and in particular chilled lean beef. Chile has traditionally relied on imported meat products to meet domestic demand, with imported meat products representing close to 50 per cent of total domestic demand in recent years. Australian producers have faced significant barriers to entry due to relatively high transport costs, tariffs of 6 per cent on red meat and livestock, a constraint in the form of the requirement to have a Chilean meat grader on-plant in Australia to facilitate any beef exports and no protocol arrangements for sheepmeat.

During 2008 and 2009, MLA was involved in conjunction with peak industry councils and the Australian Government in negotiating a free-trade agreement (FTA) with Chile.

The FTA eliminated 6 per cent tariffs on red meat and livestock and agreed to recognise Australia's beef grading system (thereby dispensing with the previous Chilean grader requirement) within one year of the FTA entering into force (see table 2.2). While the elimination of the meat tariffs has helped to offset the relatively high transport costs faced by Australian meat producers, the recognition of Australia's grading systems was the key impost which subsequently facilitated trade.

2.2 Summary of changes in access under Australia-Chile FTA

Barrier	Amendment
Red meat and livestock tariffs	Eliminate 6 per cent tariff on red meat and livestock
Beef grading	Chile agreed to recognise Australia's beef grading system within one year of the FTA entering into force.

Source: DFAT.

Australian red meat exports to Chile have recently consisted of beef only, with the majority being fresh or chilled boneless varieties (see table 2.3).

• Chile is currently a small market in terms of total Australian beef exports but is high value compared to other markets.

2.3 Exports to Chile

		Beef	S	heepmeat
	kt cwe	\$m	kt cwe	\$m
2012	25.2	98.7	-	-
2013	9.6	38.0	-	-

Source: UN Comtrade database.

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. 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 at high levels — in particular Japan and South Korea.

 Access to these markets has improved through recently negotiated FTAs. Major market access activities in the Asian region are discussed below.

ASEAN

The Association of South East Asian Nations (ASEAN) currently consists of 10 member countries, including Indonesia, Malaysia, Philippines, Thailand, Vietnam, Singapore, Myanmar, Laos, Cambodia and Brunei.

Table 2.4 below shows the value and volume of Australian red meat exports to the five most developed nations in ASEAN. Australian red meat exports to these nations have remained around 150 kt shipped weight and have been dominated by exports of boneless beef, particularly to Indonesia and the Philippines.

Malaysia has been an important market in this region for Australian beef exporters, though this has changed with the emergence of increased competition from Indian carabeef product. However, sheepmeat exports to Malaysia have maintained and increased over the past two years as shown in table 2.4.

In 2013, MLA was involved in conjunction with peak industry councils and the Australian Government in negotiating a FTA with New Zealand and the Association of Southeast Asian Nations (ASEAN). Under the so-called ASEAN-Australia-New Zealand FTA (AANZFTA), tariff levels of most livestock and red meat products were either bound at zero per cent or will be phased out over a period of time.

2.4 Exports to major ASEAN countries^a

		Beef		Sheepmeat
	kt cwe	\$m	kt cwe	\$m
2012				
Indonesia	43.0	123.8	1.3	9.1
Malaysia	28.5	65.3	12.2	53.9
Philippines	44.4	85.2	0.8	4.7
Thailand	8.2	29.9	0.7	7.4
Singapore	27.4	87.3	9.8	39.6
Total ASEAN	151.5	391.5	24.8	114.7
2013				
Indonesia	58.9	193.6	1.4	9.2
Malaysia	24.1	69.7	19.0	80.6
Philippines	44.3	95.0	0.6	4.3
Thailand	6.8	37.9	0.6	6.5
Singapore	18.1	77.2	9.6	44.1
Total ASEAN	152.2	473.4	31.2	144.7

a Excluding live exports

Source: GMI database, UN Comtrade database.

A summary of the key outcomes of the AANZFTA is provided in table 2.5 below.

2.5 Summary of outcomes of ASEAN-Australia-New Zealand FTA

Barrier	Amendment
Indonesia	
Live bovine animal tariffs	Tariffs bound at 0 per cent for breeding animals and oxen
Beef tariffs	Eliminate 5 per cent tariff on beef in 2010 except boneless which is eliminated in 2020
Sheepmeat tariffs	Eliminate 5 per cent tariff on beef in 2010 except 'other cuts with bone-in' which is reduced to 2.5 per cent in 2025
Goat meat tariffs	5 per cent tariff reduced to 2.5 per cent in 2025
Pig meat tariffs	Eliminate 5 per cent tariff on beef in 2010 except boneless which is reduced to 3.75 per cent in 2025
Poultry meat tariffs	Eliminate 5 per cent tariff on beef in 2010; 25 per cent tariffs on frozen chicken thighs reduced to 12.5 per cent in 2025.

Barrier	Amendment
Edible offal tariffs	Eliminate 5 per cent tariffs on 2010
Malaysia	
Live bovine animal tariffs	Tariffs bound at 0 per cent
Beef tariffs	Tariffs bound at 0 per cent
Sheepmeat tariffs	Tariffs bound at 0 per cent
Goat meat tariffs	Tariffs bound at 0 per cent
Pork meat tariffs	Tariffs bound at 0 per cent
Pig meat tariffs	Tariffs bound at 0 per cent
Edible offal tariffs	Tariffs bound at 0 per cent
Philippines	
Live bovine animal tariffs	Eliminate 3 per cent tariff in 2010
Beef tariffs	Eliminate 10 per cent tariff by 2012
Sheepmeat tariffs	Eliminate 5 per cent tariff by 2010
Goat meat tariffs	35 per cent tariff on goat meat reduced to 5 per cent by 2018
Pig meat tariffs	Eliminate 40 per cent tariff on most non-frozen lines by 2020 40 per cent tariffs on frozen and boneless cuts reduced to 32 per cent in 2020
Poultry meat tariffs	Eliminate 40 per cent tariffs by 2013 or 2020
Edible offal tariffs	Eliminate most tariffs by 2012.
Thailand	
Live bovine animal tariffs	Tariffs of 0 per cent and 5 per cent bound at 0 per cent
Beef tariffs	Eliminate 50 per cent tariffs in 2020
Sheepmeat tariffs	Eliminate 30 per cent tariffs by 2013
Goat meat tariffs	Eliminate 30 per cent tariffs by 2013
Pig meat tariffs	Eliminate 30 and 40 per cent tariffs in 2020
Edible offal tariffs	Eliminate 30 and 40 per cent tariffs in 2020
Vietnam	
Live bovine animal tariffs	Tariffs on breeding animals bound at 0 per cent; eliminate 5 per cent tariffs by 2016
Beef tariffs	Eliminate 15 and 20 per cent tariffs by 2019
Sheepmeat tariffs	Eliminate 10 per cent tariffs by 2016
Goat meat tariffs	Eliminate 10 per cent tariffs by 2016
Pig meat tariffs	Eliminate 30 per cent tariffs by 2020
Edible offal tariffs	Eliminate 10, 15, 20 per cent by 2020
Singapore	
All tariffs bound at 0 per cer	nt
Source: DEAT	

Source: DFAT.

Japan-Australia Economic Partnership Agreement (JAEPA)

Conclusion of the Japan-Australia Economic Partnership Agreement (JAEPA) negotiations was announced in Tokyo on 7 April 2014 by Prime Minister Tony Abbott and Prime Minister Shinzo Abe and was signed on 8 July 2014 in Canberra.

Japan has been a significant export market for Australian red meat producers since the late 1990s. The size of this market has varied considerably since then with beef demand moving in line with wider economic performance and, importantly, the market access performance of competitors, most notably the United States. The exclusion of US suppliers from the Japanese market, as a result of the BSE scare in 2007, provided significant benefits to Australian exporters. Table 2.6 shows that exports to Japan over the past 2 years averaged \$1.5 billion, representing Australia's single most important export destination — accounting for one third of total beef exports.

2.6 Australian exports to Japan

		Beef		epmeat
	kt cwe	\$m	kt cwe	\$m
2012	466.8	1515.1	11.4	78.8
2013	438.1	1433.5	12.0	84.1

Source: ABS.

Japan's most recent reduction in red meat tariff, prior to this announcement, followed the Uruguay Round when beef tariffs were set to 38.5 per cent. Sheepmeats do not attract any tariffs.

The JAEPA outcome for beef included a phased reduction in the tariff (with the first year of reductions likely to be in early 2015) over the next 18 years to:

- 23.5 per cent for chilled product
- 19.5 per cent for frozen product.

The arrangements include safeguard volumes for both chilled and frozen product. In 2015, the initial safeguard level will be 330 kt shipped weight increasing to 370 kt shipped weight by 2024. Shipments over the safeguard level will trigger a penalty duty of 38.5 per cent.

Korea-Australia FTA (KAFTA)

The Republic of Korea is a major market for Australian meat exports due to the growth potential for beef consumption out to 2030. This is despite the fact it has traditionally been a highly protected market (by tariffs) with support being provided to farm level livestock industries. The overwhelming majority of Australian red meat exports to Korea have been beef, with a large share being fresh, chilled, or frozen boneless varieties (see table 2.7).

2.7 Exports to Korea

		Beef	Shee	epmeat
	kt cwe	\$m	kt cwe	\$m
2012	195.0	646.3	4.6	22.5
2013	217.6	787.7	4.6	21.7

Source: ABS.

MLA has been involved in a gradual process of removing a range of barriers to trade with Korea over the past decade. Prior to 2000, Australia competed with other suppliers to access a pooled beef quota of 225 tonnes product weight, following the Uruguay Round, the pooled quota was replaced with a beef tariff of 40 per cent. In 2013, MLA was involved in conjunction with peak industry councils and the Australian Government in in advocating for and subsequently negotiating a FTA with Korea.

The arrangements under KAFTA will allow for the elimination in tariff levels across a range of red meat products including beef, sheepmeat, goat and pork (see table 2.8). The changes included eliminating the:

- 40.0 per cent tariff on beef and 18 per cent tariff on bovine offal over 15 years
- 22.5 per cent tariff on sheepmeat over 10 years
- 22.5 per cent tariff on goat meat over 10 years
- 18 to 27 per cent tariffs on offal over 15 years.

The KAFTA was important not only in improving market access but in also maintaining the international competiveness of Australian exports following the Korea-US FTA that entered into force in March 2012.

2.8 Summary of changes in access under Australia-Korea FTA

Barrier	Amendment
Beef tariffs	The 40 per cent beef import tariff will be eliminated in equal stages over 15 years. Volume safeguard provisions and accompanying safeguard tariffs are applicable during the elimination period.
Sheepmeat tariffs	Eliminate 22.5 per cent tariff on sheepmeat over 10 years
Goat meat tariffs	Eliminate 22.5 per cent tariff on goat meat over 10 years
Processed meats	The majority of tariffs on processed meat $\!\!/$ co-products (2-72 per cent) will be eliminated over 15 years
Offal tariffs	Eliminate 18 - 27 per cent tariffs on offal over 15 years
Livestock tariffs	The majority of tariffs on live animal exports (8-89.1per cent) will be eliminated over 15 years.

Source: DFAT.

Malaysia-Australia FTA

As discussed above, Malaysia has been a significant market for both beef and sheepmeat. In 2013, Australian producers exported \$63.0 million of beef and \$74.1 million of sheep to Malaysia (see table 2.9).

MLA was involved in conjunction with industry peak councils and the Australian Government in negotiating a FTA with Malaysia. On 1 January 2013, the Malaysia–Australia FTA (MAFTA) entered into force.

2.9 Exports to Malaysia

		Beef		Sheepmeat
	kt cwe	\$m	kt cwe	\$m
2012	22.3	63.0	16.2	103.2
2013	24.1	69.7	19.0	80.6

Source: ABS

The main benefit of the FTA from the point of view of the agricultural sector was that it reaffirmed Malaysia's commitment to 0 per cent tariffs on both livestock and meat products that were present in the AANZFTA (see table 2.10). In addition, the agreement also incorporated text outlining co-operative and consultative mechanisms to deal with standards and future technical regulations.

Currently, the Malaysian market for red meat is highly price sensitive and pragmatic when it comes to sourcing imported product. With no change in tariff rates going forward, market drivers focused around price and quality will continue to determine changes in demand for Australian product. The major advantage of the FTA outcome is that Malaysia cannot change the arrangements that were already in place.

2.10 Summary of changes in access under Australia-Malaysia FTA

Barrier	Amendment
Live bovine animals	Tariff bound at 0 per cent
Beef tariffs	Tariff bound at 0 per cent
Sheepmeat tariffs	Tariff bound at 0 per cent
Goat meat tariffs	Tariff bound at 0 per cent
Pork meat tariffs	Tariff bound at 0 per cent
Pig meat tariffs	Tariff bound at 0 per cent

Source: DFAT.

India

Industry supported by MLA has been involved in a gradual process of removing barriers to trade with India over the past decade.

In July 2001, the Indian Ministry of Agriculture introduced new trade requirements that meant that Australian exporters of livestock and meat products needed to obtain a Sanitary Import Permit from the Department of Animal Husbandry and Dairying (the Department). The Department has the responsibility of conducting a risk assessment of each application. Australian authorities and exporters could not meet the criteria used to conduct these risk assessments and as a result could not access the Indian market.

MLA was a contributory body in partnering the Australian Government in negotiating new certification arrangements. In 2012-13, new conditions for the entry of lamb, sheep, goat, pork, uncooked meat products and edible offal for Australian exporters were established.

In response, \$0.1 million of sheepmeat was exported to India during 2012 and \$0.6 million in 2013 (see chart 2.11). The modest level of success to date for lamb exports to India can be attributed to the small number of properties eligible in Australia to export to India.

 Beef and veal exports continue to be blocked by government regulation at national and state level.

2.11 Exports to India

		Beef		Sheepmeat
	kg cwe	\$m	kg cwe	\$m
2012	0.0	0.0	0.0	0.1
2013	0.0	0.0	0.1	0.7

Source: GMI database and UN Comtrade database.

European Union

The European Union remains one of the most protected markets for beef and sheepmeat. 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 (an import quota 11 times the size) to the European Union. 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.

Table 2.12 shows the composition of Australian exports to the European Union for the past two years. While exports to the European Union are modest compared to other destinations, the average value of product exported there is considerably higher (twice) than the average for all other destinations. The increase in beef exports between 2012 and 2013 reflected the growing importance of the grain fed trade to that region.

2.12 Exports to EU-25

		Beef		Sheepmeat
	kt cwe	\$m	kt cwe	\$m
2012	23.7	143.3	16.2	103.2
2013	30.9	200.7	16.9	121.7

Source: GMI database and UN Comtrade database

EU enlargement

On 1 January 2007, Bulgaria and Romania joined the European Union, expanding the union to 27 countries. Pooled meat quotas were subsequently expanded.

This included Australia's sheepmeat quota, which increased by 400 tonnes to 19 186 tonnes (see table 2.13). ² This is likely to have a negligible or even negative impact on Australian meat producers, however, as exports to these new members prior to their joining the EU totalled around 1000 tonnes.

European quota grain fed beef

Since the 1980s, the European Union and the United States have been engaged in a trade dispute over the EU's decision to ban hormone-treated meat. As a result of this ongoing dispute, a 20 000 tonne high quality grain fed beef import quota was introduced for Australian exporters, which has since expanded to 48 200 tonnes. MLA in conjunction with the Federal Government and peak industry councils helped to secure Australian producers access the quota which operates with licenses awarded to EU importers and a zero in-quota import duty.

After gaining access to the quota in January 2010, Australian exports of grain fed beef to the EU increased substantially, with total meat exports to the EU reaching 23.8 kt cwe in 2012 (see table 2.13).

2.13 Summary of changes in access to the European Union

Barrier	Amendment
Sheepmeat quota	Expanded by 400 tonnes to 19 186 tonnes in 2011
Grain fed beef quota	Expanded by 20 000 to 48 200 tonnes in 2012

Source: DFAT

Russia

Russia's inclusion in the WTO and veterinary import permits

Russia, along with China, has become one of the largest markets for, and importers of, meat in global markets. Demand for meat continues to record solid growth due to rising income levels and increased demand for high quality meat. Australia has traditionally exported frozen beef products to Russia. More recently, however, there has been increasing demand for chilled beef, particularly from high-end steakhouses.³ In 2012 and 2013, the overwhelming majority of Australian red meat exports to Russia were beef, and in particular boneless frozen varieties (see table 2.14). In addition, Russia is currently Australia's fourth largest beef offal export market.

² The original offer from the EU was lower. Only through MLA persistence was the offer raised to 400 tonnes.

³ MLA, Red Meat Market Report - Russia 2013, 2013

2.14 Exports to Russia

		Beef		Sheepmeat
	kt cwe	\$m	kt cwe	\$m
2012	50.9	153.2	5.7	22.8
2013	40.3	146.9	5.6	21.6

Source: GMI database and UN Comtrade database

Russia joined the WTO in November 2011 which resulted in Australia gaining guaranteed access to a shared pool of up to 407 000 tonnes of frozen beef and 11 000 tonnes of chilled beef (an increase of 10 000 tonnes), with in-quota tariff rates of 15 per cent.

Australian High Quality Beef (HQB) also has access to the Russian market, but with no quota restrictions, but with a tariff of 15 per cent. Currently, Australian HQB is defined based on a price mechanism of greater than 8 000 EUR per tonne, with any beef entering the market over this price classified as HQB. The Australian Government is currently negotiating with Russian authorities to agree on an Australian definition (specification) for HQB. This is in line with Russia's WTO commitments for HQB to be based on a quality, not a price definition. The increase in market access for chilled beef (through the increase in the chilled quota) and the anticipated change to the definition for HQB are benefits that the Australian beef industry will see from Russia's accession to the WTO.

Importantly, the accession is likely to mean that the TRQ allocation will remain in place in the short to medium term and that they are less likely to be significantly reduced by the Russian authorities.

In addition, following MLA representation, Russia resumed the issuing of veterinary import permits in 2006, which were initially suspended due to product smuggling.

Supplementary market access activities

In addition to the achievements outlined above, MLA has undertaken a number of initiatives as part of its 'whole-of-industry' strategy to support industry and government to maintain and liberalise world markets. These have included the preparation of submissions, the dissemination of news and trade developments to Australian producers, and the organisation and attendance of forums, seminars, and conferences. These activities are likely to have had indirect impacts on market access outcomes over the evaluation period though these are difficult to identify let alone quantify. A short list of these activities since 2006 are provided below:

- The United States Department of Agriculture implemented new labelling requirements on 1 January 2006, which required Australian exporters to review their labelling policies. MLA assisted with many of these investigations and facilitated communication between exporters and Food Safety and Inspection Service (FSIS).
- MLA together with the AQIS organised an inspection team from China to audit a number of Australian slaughter establishments as well as seeking the establishment of a tripe protocol in December 2006.

- MLA prepared and lodged a submission with DFAT in 2006 on issues relevant to the Australia-Mexico Economic Relations Study the fore-runner of an FTA with Mexico. The submission received endorsement from all industry peak councils.
- MLA worked with the AQIS and the Australian Embassy to assist two Australian exporters to gain FSIS label approvals for product held at port due to labelling issues relating to Halal marks and foreign language on cartons.
- In 2010, an AMIC/MLA delegation visited Washington DC to inform US customers about the new Australian *E. coli* 0157 testing protocol. The delegation gave several presentations to members of the Meat Importers Council of America (MICA) and other major customers.
- MLA launched the 'Together With Japan' initiative to provide ongoing support following the 2011 earthquake. This included a charity BBQ in Sydney which was attended by some 400 people including the Japanese Ambassador, Japanese Consul-General and the Ambassador-designate to Japan. MLA invited three Wagyu producers from the disaster affected areas to demonstrate industry support. The event attracted significant media attention both in Australia and Japan and shored up Australia-Japan trade relations whilst the FTA was being negotiated.
- MLA regularly participated in the Red Meat Market Access Committee (which subsequently evolved into the Industry-Government Interdepartmental Committee) which included representatives from Australian Meat Industry Council, DFAT and Australian Quarantine and Inspection Services (AQIS). The committee aimed to identify key economic and technical access barriers impacting the red meat sector and develop appropriate courses of action.
- MLA hosted several Chinese government delegations over the evaluation period, providing overviews of Australia's meat and livestock industry and integrity systems.

3 Market access program outcomes

The previous section detailed MLA's major market access contributions over the period 2006 to 2013. 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 therefore 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, that is, a change in access or protection of existing access either happens or doesn't. 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 industry and MLA in conjunction with Government to proactively and aggressively defend Australia's market access in order 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 directly 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. However, it is not possible to do a benefit cost analysis for 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 with the balance assumed to be a consequence of the efforts of the 'allof-industry' team facilitated and supported by MLA.

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 3.1 summarises the outcomes in relation to North and South America. The MoU regarding the AUSMEAT grading system was a prerequisite to greater access to that market, that would not have occurred without concerted action by industry and MLA.

- In terms of quantifying the benefits using the GMI model, Chile is currently included in the 'other countries' grouping. To simulate the benefits, the grading equivalence outcome, coupled with the elimination of the tariff (compared to the otherwise case) was weighted by Chile's share of Australian export to the 'other countries' grouping.
- Overall, it was assessed that 30 per cent of the resulting benefits were attributable to MLA.

3.1 Summary of outcomes in relation to South America

Outcomes	Details	Without scenario	MLA contribution ^a
AUS-Chile FTA	Agreement in effect 6 March2009	No change in access	30%
	Livestock and red meat tariffs eliminated		
	MoU on beef grading		

^a The balance of benefits are attributable to the collective efforts of peak industry councils, government negotiators, and industry trading in the affected markets

Source: CIE.

Asia

Table 3.2 summarises the outcomes for Asia. Of the countries identified in table 3.2, South Korea is by far the most important export destination for Australian beef. In terms of quantifying the benefits with the GMI model the following assumptions were made:

- Malaysia no changes in tariff barriers were applied to the model as there was no change in the applied rate on beef or sheepmeat. This underestimates the benefits of MAFTA from providing a guarantee that tariff rates will not be increased in the future which is difficult to value as a scenario which would need to be developed around the timing and likely size of the tariff increase.
- AANZFTA tariff changes were applied to the GMI model as per table 2.5 except for Vietnam which is included in the 'other countries' region of the GMI model.
 - In this case, the change in tariffs were weighted by current Australian export shares to that destination. On this basis, this FTA delivers better outcomes for the live cattle trade than for boxed red meat.
 - Overall, 20 per cent of the benefits were attributed to MLA.

3.2 Summary of outcomes in relation to Asia

Outcomes	Details	Without scenario	MLA contribution ^a
Malaysia-Australia FTA	 Tariffs on livestock and red meat bound at zero per cent 	No change in access	40%
AANZFTA	 Tariffs on red meat and livestock reduced across Indonesia, Malaysia, Philippines, Thailand, Vietnam and Singapore (see above for more information) 	No change in access	20%
JAEPA	 Tariffs on beef reduced from 38.5 per cent to an average of 22.1 per cent across fresh and frozen product by 2032. Sheepmeat already at zero duty. 	No change in access	20%
KAFTA	 Eliminate 40 per cent tariff on beef and 18 per cent tariff on bovine offal over 15 years Eliminate 22.5 per cent tariff on 	No change in access	30%
	sheepmeat / goat meat over 10 years		
	Eliminate tariffs on majority of live animals over 15 years		

^a The balance of benefits are attributable to the collective efforts of peak industry councils, government negotiators, and industry trading in the affected markets

Source: MLA and CIE.

- JAEPA in addition to the reduction in tariffs, account was also taken of the volumetric safeguard levels and the penalty tariff set at 38.5 per cent.
- KAFTA in addition to the tariffs outlined in tables 2.8 and 3.2, allowance was also made for the volumetric safeguard levels and the respective penalty tariff rates that were negotiated under KAFTA.

Europe and Russian Federation

Table 3.3 summarises the outcomes for the Europe Union and the Russian Federation. For the European Union, increases in the sheepmeat and grain fed beef quota have already been identified.

- Chart 3.4 shows that while Australian exporters have benefited from the expansion in the global EU quota in 2010 and then in 2012 to 48.2 kt, shipping 11.5 kt in 2013.
- The additional 400 tonnes cwe of sheepmeat represents a 2 per cent of Australia's previous EU quota.

As noted in chapter 2, establishing the 'without case' is more difficult for the Russian Federation because WTO accession has locked-in access at current levels and prohibits tightening of quantitative restrictions.

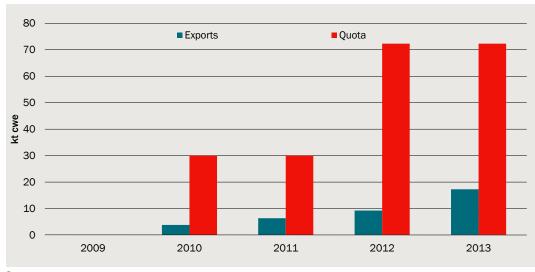
3.3 Summary of outcomes in relation to Europe^a

Outcomes	Details	Without scenario	MLA contribution ^a
EU27 quota access	 Expand sheep and goat meat quota by 400 tonnes Expanded access to global grain-beef quota which has increased to 48 200. 	Sheepmeat quota remains at previous levelsNo access for grain fed product	40%
Russia Federation quota access	 Guaranteed access to a pooled quota of 407 000 for frozen beef and 11 000 chilled beef. 	Uncertain access levels and poorly defined HQB	40%

^a The balance of benefits are attributable to the collective efforts of peak industry councils, government negotiators, and industry trading in the affected markets.

Source: MLA and CIE.

3.4 Australia's grain fed exports to the European Uniona



^a Note that the grain fed quota is a global quota across eligible suppliers.
Data source: GMI database.

Chart 3.5 shows that Australia currently has a relatively small market share of Russian beef imports compared to South American suppliers — which will be exacerbated further given the sanctions imposed in 2014 and is expected to persist into the future. The benefits from these changes in access mainly relate to the option value:

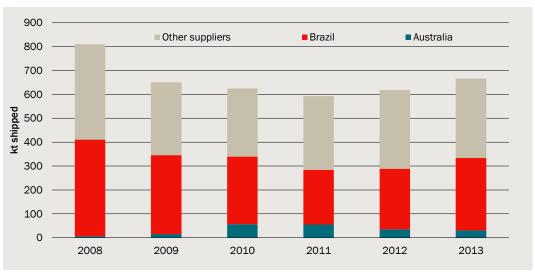
- if prevailing market conditions become more favourable (say, as a result of exchange rate changes) across traditional export lines
- if Australian exporters move from frozen manufacturing cuts to higher valued chilled cuts in the future (once the HQB definition is resolved).

These benefits from the option value are difficult to quantify because they are based on estimating the probability of both the timing and the size of opportunity that may present itself.

Stakeholder survey

In addition to a modelling approach to the quantification of the benefits from the MLA Market Access program, another approach is to qualify these benefits by surveying key stakeholders in industry and government.

3.5 Beef exporters to the Russian Federationa



^a Other suppliers are dominated by Argentina, Paraguay, Uruguay and Mexico.

Data source: GMI database.

An online survey was conducted for MLA during August 2014 to establish the level of satisfaction with MLA's marker access contribution. The survey was distributed to 118 participants across industry and government, overall there was a 52 per cent response rate.

In terms of the strengths of these MLA services, key benefits identified included:

- Government supporting government advocacy and negotiations through knowledge of the commercial environment, markets and trends; the ability to build alliance networks in both government and industry; provision of market intelligence and analysis; provision of advice regarding local sensitivities.
- Industry provision of strong analytical support for market access issues including official research, reports and industry endorsed submissions; on-the-ground support and capability in target export markets - including knowledge of local contacts.

Possible areas for improvements for MLA services, key issues identified included:

- Government enhanced industry cohesion; to ensure industry is speaking with a single voice.
- Industry resolution of technical market access issues is an ongoing frustration but not necessarily one which MLA has control over.

Many of the responses identified that MLA was not the sole driver of market access outcomes and cannot have the same understanding as those that are trading in these markets (this led to lower ratings in the technical and meat safety percentages in Table 3.6 below). This has always been the intent of the MLA staff leading this program as they

have facilitated a 'whole-of-industry' approach to access issues with MLA making a contribution to this effort (as required), but not leading it.

Table 3.6 summarises the survey outcomes across the categories of issues. This assessment reflects the practical differences in the range of market access issues in which each group is engaged. For industry respondents it was evident from verbatim responses that the attribution of MLA's contribution to market access issues was blurred —given the involvement of numerous other industry sources.

3.6 Rating of MLA's contribution to market access^a

	Stakeholder group		
	Government	Industry	
	Per cent	Per cent	
Contribution to addressing economic market access issues	100	89	
Contribution to addressing technical access issues	100	70	
Contribution to handling meat safety related issues	100	85	
Contribution to quality of information	100	72	
Quality of follow-up to requests for assistance	100	85	

^a Percentage of respondents who indicated a rating of average, above average or excellent.

Source: MLA Market Access Stakeholder Survey, Confidential Report for Meat and Livestock Australia, August 2014.

4 Industry benefits from the market access program

Chapters 2 and 3 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

MLA's 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 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. For this evaluation, we use the MLA's Global Meat Industry (GMI) model to quantify the benefits from the identified improvements in market access.

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.

The model projects global quantity and price outcomes out to 2030 based on a scenarios around changes in the:

- demand side with key drivers being population and income growth, preferences for each meat type that vary between model regions and the relative price of each type of meat identified
- supply side determined by farm or saleyard prices, underlying productivity trends and feedgrain costs
- trade barriers the GMI model has a comprehensive listing of tariffs and tariff-quota arrangements identified by either the Uruguay Round or FTA announcements.

Outcomes not quantified

It should be noted that not all the outcomes presented in chapters 2 and 3 can be quantified. Although the GMI model is a detailed trade model, it does have some limitations, including:

- some regions, including Chile, Vietnam and Middle East, are not included
- offal products do not appear in the model.

In addition to this, there are a number of outcomes for which the benefits from improved outcomes are highly uncertain. An example of this is the guaranteed general quota access for the Russian Federation. As noted, establishing a 'without MLA' scenario in this area is extremely difficult because of the option value of this improvement. It is difficult to establish a likely scenario for what would have happened without this effort. Therefore, 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 appears to be relatively small market access restrictions spreading to more significant areas.
- Maintaining a proactive dialogue on issues that are ongoing and keeping the Australian industry priorities and views in the picture. It is likely that these issues will arise 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.

Adoption rates and probability of success

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 (see the Russian Federation example).

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 KAFTA. The outcome in this case was the increase in market access for Australian producers / processors 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 reduction in tariffs generate benefits to the industry by lowering the price of Australian

landed product to Korean consumers relative to the price of other imported and domestic product. The extent of these benefits depend not only on the responsiveness of Korean importers and consumers to this lower price, but also the interaction between this increased demand and safeguard levels and penalty tariffs announced under KAFTA.

Timeframe and how benefits are measured

The headline analysis considers the timeframe for the evaluation in two parts:

- between 2006 and 2014 when MLA expenditure was incurred (this analysis is based on observed outcomes)
- between 2014 and 2030 (based on GMI model projected outcomes as discussed earlier).

Benefits are calculated as change in gross value of production at saleyard level to Australian producers, whilst the adjusted benefit stream represents includes the percentage contribution of MLA to the outcome.

Projected benefits and costs

To provide some perspective on the composition and timeframe of the expected benefits, the payoffs are identified by regional groupings of MLA activities and by levy stream (beef and sheepmeat).

Table 4.1 shows the annual benefits by activity and by levy stream in 2012-13 prices. There are a number of key features of the likely benefit stream:

- over 90 per cent of the identified benefits accrue to beef producers, of which over 60 per cent result from the JAEPA and 30 per cent from the KAFTA reflecting the importance of the north Asian market to Australian beef exports out to 2030
- the majority of the benefits in 2012-13 terms (which accrue from 2020 onwards) are directly linked to improved access to Japan and especially Korea where per person beef consumption is expected to grow steadily
- for sheepmeat, the KAFTA is also expected to deliver the largest benefits out to 2030 with relatively modest improvements in access in other export markets.

The model results reflect both direct and indirect benefits from reductions in market access. For example, pre-FTA tariff levels for sheepmeat into Japan were already at zero per cent, but the value of Australian sheepmeat production increases by \$37 million by 2030.

This benefit comes about through improved access for both in the Japanese market, lifts Australian saleyard prices for both cattle and sheep, and increases sheepmeat GVP.

4.1	Annual benefits of the Market Access program in 2012-13 dollars	3
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	2010	2015	2020	2025	2030
	\$m	\$m	\$m	\$m	\$m
Beef					
JAEPA	0	136	355	556	667
KAFTA	0	31	154	243	478
Chile FTA	3	6	7	7	7
Malaysian and AANZFTA	5	17	32	51	62
European Union quota	4	18	30	38	37
Russian Federation quota	0	0	0	0	0
Total	12	209	578	895	1 250
Sheepmeat					
JAEPA	0	9	22	33	37
KAFTA	0	3	18	35	47
Chile FTA	0	0	0	0	0
Malaysian and AANZFTA	0	2	3	4	6
European Union quota	0	3	2	3	4
Total	1	17	44	75	94

^a Net present value of benefits in 2012-13 values of gross value of production using a discount of 7 per cent over the period 2006 to 2030.

Source: GMI model and CIE calculations.

Table 4.2 shows the summary of results of these benefit streams discounted back into present value terms for the market access evaluation.

- The timeframe of the present value calculation is the 24 year period from 2006 to 2030 using MLA's standard discount rate of 7 per cent in real terms.
- Over the 24 year period, the total benefits that could be delivered by these activities is valued at \$6.2 billion (see table 4.2) with beef accounting for over 90 per cent of the red meat total.

4.2 Summary of present value of total benefit streama

		Beef	Sheepmeat	Total
JAEPA	\$m	3 268	201	3 70
KAFTA	\$m	16 35	192	1 827
Chile FTA	\$m	89	3	92
Malaysian and AANZFTA	\$m	363	32	395
European Union quotas	\$m	332	37	368
Russian Federation quota	\$m	0	0	0
Total	\$m	5 687	465	6 152

^a Net present value of benefits and costs in 2012-13 values using a discount of 7 per cent over the period 2006 to 2030. Source: GMI model and CIE calculations.

These benefits accrue to MLA and its partners who contributed to the total outcome. The next step is to apply the assumed level of attribution to MLA in chapter 3, to estimate a total benefit back to MLA that can be matched against MLA program expenditures to calculate a BCR for this investment (see table 4.3 below).

Note that given the zero base tariffs for Japanese sheepmeat, attribution of benefits back to MLA for improvements in the Japanese sheepmeat exports have been assigned the same value as for the benefits to beef.

4.3 Attribution of total benefit stream to MLA Market Access programa

		Beef	Sheepmeat	Total
Attribution to MLA				
JAEPA	%	20	20	20
KAFTA	%	20	20	20
Chile FTA	%	30	30	30
Malaysian and AANZFTA	%	20	20	20
European Union quotas	%	40	40	40
Russian Federation quota	%	40	40	40
Benefits attributed to MLA				
JAEPA	\$m	654	40	694
KAFTA	\$m	327	38	365
Chile FTA	\$m	27	1	28
Malaysian and AANZFTA	\$m	73	6	79
European Union quotas	\$m	133	15	147
Russian Federation quota	\$m	0	0	0
Total	\$m	1 213	101	1 313

^a Net present value of benefits and costs in 2012-13 values using a discount of 7 per cent over the period 2006 to 2030. Source: GMI model and CIE calculations.

At an average attribution level of 21 per cent back to MLA, the total present value of benefits of \$6.2 billion is reduced to \$1.3 billion. This benefit is then compared to the present value of costs over the period 2006-13, valued at \$33 million, as shown in table 4.4.

4.4 Summary of market access program net benefits

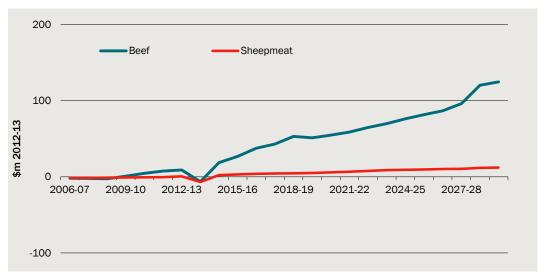
		Beef	Sheepmeat	Red meat
Total benefits	\$m	5 687	465	6 152
Attribution to MLA	%	21	22	21
Benefits to MLA	\$m	1 213	101	1 313
Program costs	\$m	22	11	33
Benefit cost ratio		54.6	9.4	39.9

^a Net present value of benefits and costs in 2012-13 values using a discount of 7 per cent over the period 2006 to 2030. Source: GMI model and CIE calculations.

- The expected payoff to red meat producers, in terms of the benefit cost ratio, is significant at nearly 40 to 1.
- The outcome is significantly different between the levy streams the benefit cost ratio for beef is 54.6 to 1 compared to 9.4 to one for sheepmeat.
- This is a good outcome for sheepmeat given the current structure of global trade and the relatively modest changes in market access for significant importing countries.

As noted, the time path of expected net benefits is crucial to the bottom line shown in table 4.4. Chart 4.5 shows the net benefit stream, after attribution to MLA, over time (undiscounted) in 2012-13 dollar equivalents by levy stream.

4.5 Undiscounted stream of net benefits



^a Benefits and costs in 2012-13 terms, undiscounted, after attribution back to MLA. *Data source*: GMI model and CIE calculations.

From these net benefit streams, internal rates of return (IRR) can be estimated. Over the timeframe 2006 to 2020 the IRR is:

- 47 per cent for red meat
- 58.3 and 20.7 per cent for beef and sheepmeat.

These outcomes reflect the short period of small negative net benefits (when costs exceed revenues) before a sustained period of positive benefits. This analysis does not account for the contribution of activities by MLA and its partners in the period prior to 2006 to outcomes observed from 2006 to 2014.

Sensitivity analysis

The standard approach to program evaluation is to test the sensitivity of the results to key uncertain variables. These variables typically include 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 attribution to each outcome.
- the timeframe of the benefits to be considered.

Sensitivity to uncertain impacts and timing

The majority of the outcomes quantified in this evaluation are 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.

In terms of the outcomes identified in chapters 2 and 3, there were two cases where the timing and size of the likely benefit stream from negotiated improvements in market access are uncertain: in the case of the Malaysian FTA and more particularly, the global beef quota for the Russian Federation.

The uncertainty comes about because of the option value of the improved market access. While these changes are likely to have limited benefits because of market drivers, even in the long term, the option benefit comes about if:

- the Malaysian government chose to increase tariffs up to the previous bound rate in the future
- Australian exports became more competitive against South American competitors in the Russian market, or more likely, changed focus to the higher value chilled segment.

In each case, this would require the development of a scenario on the timing and the extent of these changes to estimate a benefit stream consistent with the other improvements analysed in this evaluation.

Attribution

The attribution of benefits from improved market access back to MLA is largely a subjective exercise and not amenable to quantification. Table 4.6 summarises the sensitivity of the present value of benefits and the benefit-cost ratio under two scenarios:

- attribution to MLA is 50 per cent lower than the headline analysis
- attribution to MLA is 25 per cent higher than the headline analysis.

This represents a plausible range accounting for the possibility that improvements in market access may have happened anyway and that MLA's contribution simply brought forward of increased the likelihood of positive outcomes.

Table 4.6 shows that the bottom line for MLA benefits and benefit cost ratio is directly related to the level of attribution used. If attribution to MLA is halved, the benefit cost ratio for MLA halves to 20 to one. If attribution is increased to an average level of around 50 per cent (compared to 40 per cent in the headline analysis), the benefit cost ratio could be as high as 50 to one for MLA levypayers.

4.6 Sensitivity analysis around attribution of benefits to MLA

		Beef	Sheepmeat	Red meat
Headline analysis				
Benefits to MLA	\$m	1 213	101	1 313
Benefit cost ratio		54.6	9.4	39.9
50 per cent lower attribution to MLA				
Benefits to MLA	\$m	606	50	657
Benefit cost ratio		27.3	4.7	20.0
25 per cent higher attribution to MLA				
Benefits to MLA	\$m	1 516	126	1 642
Benefit cost ratio		68.2	11.8	49.9

^a Net present value of benefits and costs in 2012-13 values using a discount of 7 per cent over the period 2006 to 2030. Source: GMI model and CIE calculations.

Timeframe of payoffs

The headline results are also sensitive to the timeframe for future benefits. The headline analysis uses a benefit stream over 24 years. However, the RDC's guidelines specify reporting benefits over 5, 10 and 20 years.

Table 4.7 shows the outcome for this program for a 5, 10 and 20 year benefit period (commencing from the start of the evaluation period which is 2006-07).

Even when considering a very short payoff timeframe of 5 years, the net benefit remains positive. Over a ten year timeframe, the benefit cost ratio increases from 0.4:1 for red meat to 6.2: 1.

- These are substantially lower than the headline analysis, illustrating the long term nature if market access improvements particularly for FTAs that have phasing-in periods of more than 10 years (in the case of JAEPA and KAFTA).
- After 15 years, the total benefit attributed back to MLA is around 40 per cent of the headline analysis.

4.7 Sensitivity analysis of benefits timeframe

		Beef	Sheepmeat	Red meat
5 year benefit period				
Total benefits	\$m	41	3	44
Attribution to MLA	%	30	27	30
Benefits to MLA	\$m	13	1	13
Program costs	\$m	22	11	33
Benefit cost ratio		0.6	0.1	0.4

		Beef	Sheepmeat	Red meat
10 year benefit period				
Total benefits	\$m	561	49	610
Attribution to MLA	%	24	26	25
Benefits to MLA	\$m	137	13	150
Program costs	\$m	22	11	33
Benefit cost ratio		6.2	1.2	4.6
15 year benefit period				
Total benefits	\$m	2 278	182	2 460
Attribution to MLA	%	22	23	22
Benefits to MLA	\$m	500	41	542
Program costs	\$m	22	11	33
Benefit cost ratio		22.5	3.9	16.5

^a Net present value of benefits and costs in 2012-13 values using a discount of 7 per cent over the period 2006 to 2020. Source: GMI model and CIE calculations.

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