WORLD SHEEP MEAT MARKET TO 2025
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By Lionel Colby, Independent Consultant with AHDB MI.

A joint report published by AHDB Beef & Lamb and the International Meat Secretariat

With gratitude to the help and support of Bob Bansback (International Meat Secretariat), Jean-Pierre Garnier and Jonathan Eckley (AHDB Beef & Lamb) and AHDB Market Intelligence
**The United Kingdom has a very long tradition of sheep farming and still retains by far the largest sheep population, the largest production of lamb and mutton and the largest exports of ovine products in Europe.**

Production of sheep meat is an essential economic activity in many parts of the country, including some of the poorest, and contributes to Britain’s countryside by maintaining the great British landscapes, the water resources and many fragile environments such as hills, chalk downs, marshlands, wild flowers meadows and coastal areas. Furthermore, British sheep boast important genetic resources, as well as a high level of production and processing knowhow. In order to preserve this unique and vital heritage, our industry needs to think strategically, look towards the future and adapt to the changes required by the fast-changing market place. For lamb, being an expensive protein source with low consumption in many countries, this certainly creates a challenge.

Moreover, the British sheep industry operates in an increasingly open global market where competition, free trade agreements and market access can influence its future.

This work is specially commissioned to answer these questions over a 10-year horizon: where and how the UK sheep industry will fit in the global arena; what are the implications of current developments in the main producing and consuming countries/economic zones for UK exports of lamb and mutton; what will be the influence of the largest producer and consumer, China. Obviously, prognoses need well-thought scenarios in order to map the future. Importantly, this study has an international remit and conclusions do not only apply to the United Kingdom. We hope it will be relevant to all interested in the subject.

We are particularly grateful to Lionel Colby, who has used his long and precious experience of the economics of the sheep sector in different parts of the world, having worked on a professional basis in the sector for over 40 years. The report was partly written from the standpoint of a UK and European audience. However, the in-depth assessment of global developments is likely to be of value to all who have an interest in the sector and we are delighted that the work is going to be made more widely available.

**Sheep meat is one of the world’s four major meat categories – along with beef, pig meat and poultry meat. Global production in 2014 amounted to 8.7 million tonnes and the value of trade (including interregional trade) was in excess of US$6.7 billion.**

The recent growth of Chinese sheep meat imports has had an important impact on the world sheep meat economy. However, it has also raised a number of questions about future developments in global trade and the consequent impact on sheep prices in different parts of the world. The IMS was, therefore, particularly pleased that AHDB Beef & Lamb (previously EBLEX) agreed to fund a study on the future world sheep meat market for presentation at the IMS Economics Workshop in Tokyo in May this year. The author of the study, Lionel Colby, has had a longstanding experience and understanding of the sheep meat sector in different parts of the world, having worked on a professional basis in the sector for over 40 years. The report was partly written from the standpoint of a UK and European audience. However, the in-depth assessment of global developments is likely to be of value to all who have an interest in the sector and we are delighted that the work is going to be made more widely available.

**FOREWORD**

**Comments from Jean-Pierre Garnier, Head of Exports AHDB, and Guillaume Roué, President of the International Meat Secretariat.**

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Production of sheep meat is an essential economic activity in many parts of the country, including some of the poorest, and contributes to Britain’s countryside by maintaining the great British landscapes, the water resources and many fragile environments such as hills, chalk downs, marshlands, wild flowers meadows and coastal areas. Furthermore, British sheep boast important genetic resources, as well as a high level of production and processing knowhow. In order to preserve this unique and vital heritage, our industry needs to think strategically, look towards the future and adapt to the changes required by the fast-changing market place. For lamb, being an expensive protein source with low consumption in many countries, this certainly creates a challenge.

Moreover, the British sheep industry operates in an increasingly open global market where competition, free trade agreements and market access can influence its future.

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**Guillaume Roué**
**President, International Meat Secretariat**
The emergence of China is changing the dynamics of the global sheep meat market. China is now the largest producer, consumer and importer of sheep meat. This export trade is very concentrated and dominated by Australia and New Zealand, which are also the second and third largest producers. The United Kingdom is the sixth largest producer, although the third largest consumer, importer and exporter. As a region, the EU is the second largest global producer accounting for 9% of the total. Some liberalisation in the global sheep meat trade, through Free Trade Agreements (FTAs) is taking place, although the EU has been slow in negotiating them (Chapter 1.1).

Australia has experienced strong growth in lamb exports in recent years, given a switch to meat breeds, but for New Zealand, competition from dairying and forestry has prevented long term growth (Chapter 1.2 and 1.3). The UK’s main export market is still France but is having some success in export diversification, including to non-EU markets (Chapter 1.4).

The increase in Chinese import demand is being met by Australia and New Zealand and the signing of FTAs is giving both countries a competitive advantage over other suppliers. Higher income consumers are getting a taste for sheep meat, even though the product is very expensive. The modern retail sector and up-market hotel and restaurant sectors can contribute to demand growth for sheep meat (Chapter 1.6).

The EU region is the second largest global importer but shipments have been falling (from 2010 onwards) and so have production and consumption, a situation not helped by economic problems in the EU since September 2008. While the import trade is still dominated by New Zealand it no longer fills its tariff rate quota even though the tariff rate is zero (Chapter 1.7). The other key global import market is the Middle East/North Africa (MENA) where there is a strong tradition of consuming sheep meat and where demand growth continues (Chapter 1.8).

Published long-term sheep meat forecasts indicate a tight supply situation for the key exporting countries, although with growth for Australian lamb but not for New Zealand. Global demand will continue to grow, led by China and so the sheep meat market should remain firm with further price increases. For the EU, long-term projections made by the EU Commission indicate no significant change in production, imports or consumption (Chapter 2).

There are a number of critical factors, some of which are very uncertain that will affect the global sheep meat market in the long term. General factors include further developments in international trade agreements, the outlook for the global economy and exchange rates. The competition from other meats, especially beef, will also influence future demand for sheep meat (Chapter 3.1).
Of the key global import markets, the situation in China will be especially critical. This includes the extent to which demand for sheep meat continues to grow, developments by cut and how domestic supply responds to this. Government policy, especially in relation to imports, will also be key (Chapter 3.2). For the EU, there is the issue of the extent to which demand does eventually recover and how supply, both domestic and imported, responds (Chapter 3.3).

Among the global exporters there are a number of critical factors for New Zealand that will influence future supply, including the competition from dairying and the impact of environmental legislation on the livestock sector. For Australia, climatic conditions will continue to play a part in production developments, and so will the extent to which there is a further switch to meat breeds and future demand developments in China and MENA (Chapter 3.5). For the United Kingdom, production developments, which in turn will be influenced by producer profitability, will continue to impact on export availability, as will exchange rates. The competitive position of the UK will be critical (Chapter 3.6). At the global level, major upheavals (political and religious), food safety, animal health and climate change and how Governments react to them, will also be critical (Chapter 3.7).

The outcome of such critical factors will influence the long term outlook for sheep meat. The ‘Most likely’ scenario assumes an ongoing firm market with increased prices and demand, further modest trade liberalisation and limited production rise. Production growth will be led by China and Australia and consumption growth centred on China and to a lesser extent MENA. Global production and consumption are forecast to grow by just over 1% per annum, which would be a slightly higher rate than historical developments. The growth in trade, led by increased availability of Australian lamb, is expected to be nearer 2% per annum in line with the historical increase (Chapter 4.2).

The ‘High’ scenario is one of sustained strong positive price and demand developments, plus a sustained move towards more free trade with global supply unable to keep pace with demand. There will be long-term sustained lamb export growth for Australia, with strong consumption growth in China but with global import growth constrained by export availability. The growth in global production and consumption is forecast to be nearer 2% per annum with trade rising by over 3% per annum (Chapter 4.3).
The ‘Low’ scenario is the complete opposite of the high scenario with no increase in world prices and demand, increased protectionism and problems for exporting countries. There will be long term declines in production in Australia and New Zealand as they adjust to declining import markets, including China. Global production and consumption growth will be less than 0.5% per annum and global trade will even edge back (Chapter 4.4).

China will remain critical to long-term global developments but the outcome of its future import requirements will be very different depending upon scenario (Fig 1).

For the UK under the ‘Most likely’ scenario, there will continue to be high dependence upon the continental EU market for premium cuts. However, it should be able to continue to develop markets outside of the EU for lower value cuts, although the lack of progress made by the EU in negotiating FTAs puts UK exporters at a competitive disadvantage. This especially applies to China. However, under the ‘High’ scenario, the outlook is more positive as there would be global supply shortages and the UK is the third largest exporter (Chapter 4.5).

The key conclusions of the study, both in relation to the global situation and in the UK, are covered in Chapter 5. At the global level, international policy will inevitably continue to impact on trade flows, while global import demand developments will focus on a few key markets, especially China but also the EU and MENA. Global export trade will continue to be dominated by New Zealand and Australia, with the main growth occurring for Australian lamb. The United Kingdom will continue to have to focus on the EU market, including ‘new’ markets that do not have a tradition of consuming sheep meat, while further developing trade in cuts and branded products, which can be less sensitive to exchange rate movements. It can use the global market for lower valued cuts and offals, although still seeking out markets for premium lamb. The UK also needs to support FTA negotiations and ensure that sheep meat is included.
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Abbreviations

AHDB  Agriculture & Horticulture Development Board
ASEAN  Association of Southeast Asian Nations
CAP    Common Agricultural Policy
CETA   Comprehensive Economic and Trade Agreement
CN     Customs Nomenclature
ESCAS  Exporter Supply Chain Assurance System
EU     European Union
FAO    Food and Agriculture Organisation
FMD    Foot and Mouth Disease
FTA    Free Trade Agreement
GATT   General Agreement on Tariffs and Trade
GHG    Greenhouse Gas
HR     Hotels and restaurants
MENA   Middle East/North Africa
MLA    Meat and Livestock Australia
MFN    Most Favoured Nation
OECD   Organisation for Economic Co-operation and Development
SFP    Single Farm Payment
TPP    Trans-Pacific Partnership
TRQ    Tariff Rate Quota
TTIP   Transatlantic Trade and Investment Programme
VRA    Voluntary Restraint Agreement
WTO    World Trade Organisation
1 CURRENT SITUATION

1.1 GLOBAL MARKET

1.1.1 GLOBAL MARKET OVERVIEW

Sheep meat production is widely distributed throughout the world:

- China though, dominates with a 24% share in 2013, based on data from FAO (Fig 1.1):
  - The question remains though, as to whether production is actually around 2 million tonnes per annum or whether figures have been inflated:
    - China also does not publish data for sheep meat, as it only uses the category 'mutton' which includes both sheep and goat meat, with FAO estimates indicating that the two categories are equally important
    - Taking sheep numbers as 150 million (year end figure) this implies annual production of 13kg per head, whereas the figure for Australia is nearer 7.5kg (based on June census and so allows for the fact that both census results are taken when the majority of lambs will already have been marketed and so not included in census returns)
    - China is also now the largest importer

- Australia and New Zealand are the next largest producers, accounting for 8% and 5% respectively of global production:
  - They are also by far the dominant exporters

- The two next largest producers are Sudan and Turkey, with the former a small exporter (although its trade is largely in live)

- The sixth largest producer is the United Kingdom, accounting for 3% of global production:
  - While the EU as a whole accounts for 9% of global output

- After Asia (50% of global production), Africa is the second largest producing region with 20%

- Long term global production growth (since the year 2000) has only averaged 0.8% per annum which is even less than for beef (0.9%):
  - And excluding China it has been negligible (0.2% per annum).

Fig. 1.1 Major global sheep meat producers, 2013

Source: FAO

Global sheep meat consumption is also widespread:

- But is still the least important of the main meats consumed:
  - In 2013, the market amounted to an estimated 8.6 million tonnes, which puts per capita at only 1.2kg, given that the global population amounted to almost 7.2 billion
  - While lamb dominates, especially in developed economies, mutton that comes from adult sheep also generally enjoys a strong demand led by Muslim groups and other consumers with more limited purchasing power
  - With sheep meat still regarded as a traditional meat with only a limited role in modern convenience cooking

- China inevitably dominates the global market, accounting for 27% of the total (Fig 2.2)

- There are then a number of smaller markets with a market share of 3-4% of the global total with Sudan the second largest followed by the UK

- The EU as a whole accounts for an estimated 12% of global consumption, with the Middle East/North Africa (MENA) around 19%.

Fig 1.2 Major sheep meat consuming countries, 2013

Source: FAO

The global export trade is very concentrated (Fig 1.3):

- Based on data for 2013, Australia and New Zealand accounted for 68% of the total (which includes intra-EU trade), both exporting almost 400,000 tonnes of product weight in 2013

- The UK is the third largest and had a market share of 9% in 2013:
  - It was also over twice as important as the fourth largest, Ireland, which had a market share of almost 4%

- The only other significant exporters are Uruguay and Spain. There are then a number of small exporting countries in the EU, Africa and Asia (such as India)
• Based on estimates from AHDB, total trade in 2013 amounted to 1.16 million tonnes with a value of US$5.9 billion (£4 billion):
  • While this total was 7% higher than in 2012, prior to this long term trends indicate no long term growth. The previous peak in the two years 2008 and 2009 was then followed by a marked decline:
    – With Australia the key reason for such changes.

    Fig 1.3 Major sheep meat exporters, 2013

    Source: FAO

The global import market is inevitably more fragmented, given the large number of importing countries (Fig 1.4):

• Data should also be treated with caution, especially, for example, given the lack of up to date figures for some of the MENA countries

• China emerged as the largest importer in 2012, having overtaken France and in 2013 accounted for 25% of global trade

• France itself in 2013, accounted for 10% of global trade, followed by the United Kingdom with 9%:
  • With the EU as a whole accounting for one third of global trade, which includes both trade within the EU (intra) and outside it (extra)

• Other significant importers include the United States and countries of MENA, led by the United Arab Emirates and Saudi Arabia

• Smaller importers include other EU countries (led by Belgium and Italy) and south east Asia

• With the supply situation, notably in Australia and New Zealand, rather than demand being a more important factor influencing trends in total global imports.

    Fig 1.4 Major sheep meat importers, 2013

    Source: FAO

Global meat prices show a more substantial price rise for ovine meat than other meats (Fig 1.5):

• Ovine meat prices since the year 2000 have increased by an average of 8.2% per annum, compared with a rise of only 5.3% for meat in total, based on data from the FAO:
  • But after the exceptional levels recorded in 2011 there has been some price adjustment
  • And ovine meat prices have also increased in real terms as global inflation has only averaged 4.2% per annum
  • Data though, should be treated with a degree of caution, as for ovine meat it consists of only one quotation, New Zealand lamb, 17.5kg cwt, export price

• Bovine meat, the main competitor to ovine meat, has seen an increase of 5.9% per annum.

    Fig 1.5 International meat price indices, 2000-2014

    Source: FAO

The global overall average export price for sheep meat has also increased (Fig 1.6):

• Both in current terms (based on the US dollar) and even in real terms (after adjusting for global inflation)

• Although, after reaching a peak in 2011, there was some downturn partly because of consumer resistance to such high prices and that available supplies and export availability increased especially for Australia.

    Fig 1.6 Global sheep meat export price, 2003-2014

    Source: FAO
1.1.2 DOMESTIC AND INTERNATIONAL POLICY

International policy, mainly through trade agreements, is impacting on trade flows:

- The Uruguay Round of GATT was a first step in liberalising global trade through expanded tariff quotas and lower import tariff rates:
  - These were introduced in 1995 with gradual implementation over six years
- Since then the follow-up Doha Development Round of the WTO, launched in November 2001, has seen negotiations move very slowly, with agreement still not yet in sight:
  - Negotiations inevitably include further liberalisation in global trade and proposed to be more radical than those agreed under the Uruguay Round, with six equal annual tariff reductions over a five-year period for developed countries
- This lack of progress has given further impetus to the signing of bilateral and multilateral trade agreements, with sheep meat included in these and normally resulting in zero tariffs. The main ones, with implications for trade flows in sheep meat are:
  - The Free Trade Agreements (FTAs) between New Zealand and China and now Australia and China, which are especially critical
  - Other FTAs or Economic Partnerships include those that:
    - Australia already has in force with the United States, Japan, Singapore and Malaysia. An FTA has also been signed with South Korea and an Economic Partnership signed with Japan. An FTA is under negotiation with the Gulf Cooperation Council, with the Gulf States of the Middle East being major markets for Australian sheep meat
    - New Zealand has FTAs with Malaysia and Singapore. In addition there is the ASEAN-Australia-New Zealand FTA. ASEAN covers countries in South and South East Asia
    - The Trans-Pacific Partnership (TPP) that the United States is negotiating with 11 other countries in the Asia-Pacific region that include Australia, New Zealand, Canada and Japan.
  - Other FTA negotiations taking place that could have implications for EU sheep meat trade include those with ASEAN countries (such as Singapore, Malaysia and Vietnam), Mercosur, some North African and Near East countries (such as Morocco, Tunisia, Jordan and the Lebanon), China, India and Japan:
    - But progress is inevitably slow (eg discussions with Mercosur first started in 1995) and may not even result in any significant implications for sheep meat by 2025
    - Also, as an example, the EU already has an Association Agreement with Morocco, under which reduced tariffs on EU sheep meat are applicable but for carcases they are still 140% ad valorem (in order to protect local producers from imports), although the normal tariff is 200%:
      - So sheep meat might be considered a sensitive product when it comes to agreeing FTAs with some countries
  - And details and so market implications for sheep meat are not generally known as they have yet to be determined in the FTA negotiations.

Domestic policies to support the global sheep sector have probably had less impact on trade in terms of import penetration and export availability:

- The Uruguay Round of GATT included cut-backs in domestic support (of 20%) with the most notable being in the EU, which also undertook subsequent CAP reforms
- CAP reforms covering production support included elimination or partial elimination of the ewe subsidy with switch to the Single Farm Payment (SFP):
  - However, such ongoing support will have contributed to higher production in the EU than might otherwise have been the case and could have influenced the EU import requirement and the prices obtained
- Some support in China, including funding to improve pastures and breeding improvement programme
- For other major producing/trading countries, such as Australia and New Zealand, direct support has not existed for decades.

In contrast, the European Union has been slow in agreeing any FTAs in general, let alone those that might have either benefitted its sheep meat exports or increased market access to the EU market:

- A Comprehensive Economic and Trade Agreement (CETA) was signed with Canada in October 2013 and the text of the agreement is being drawn up. Canada is a small importer of sheep meat, taking around 20,000 tonnes per annum from Australia and New Zealand, and tariffs would be reduced to zero
- The Transatlantic Trade and Investment Programme (TTIP), a trade agreement that is currently being negotiated with the United States which intends to remove a wide range of trade barriers, including, as much as possible, on agricultural products. The United States imports around 70,000 tonnes of sheep meat per annum (but almost entirely supplied by Australia and New Zealand)
The performance of the Australian sheep industry over the years indicates a steady increase in lamb production and exports at the expense of mutton:

- Given better returns on the world market for lamb relative to wool:
  - With a switch from wool breeds to meat breeds and so increased lamb production but lower production of mutton (from culled ewes and wethers) (Fig 1.7)
  - Lamb production is now more than twice as high as mutton production, whereas in the 2003 to 2005 period it was nearer 50%
- In terms of carcase weight equivalent, mutton exports were still more important than lamb in the 2003 to 2008 period but by 2011 lamb exports were 80% higher (Fig 1.8):
  - Although in both 2013 and 2014 lamb exports were only 20% more than mutton but this is a temporary development and this proportion will increase sharply again in 2015:
    - And by value in 2014 lamb was still double that of mutton
- Mutton production and exports are very much influenced by climatic conditions and the strong export performance of 2013 and 2014 can be attributed to dry conditions in many parts of Australia, forcing producers to increase their off-take (turn-off)
- Note though, that stocking rates are lower than in New Zealand and sheep are found on more marginal land not suitable for dairy production.

In spite of the increase in lamb exports over the years, Australia has been forced to develop markets outside of the EU (Fig 1.9):

- Given low market access to the EU because of the sheep and goat meat tariff quota, which is only 10% that of New Zealand:
  - Even though Australia had been pressing for increased access, it being a premium market
  - The EU market only accounts for 6% of its total lamb trade, whereas in 2003 it was as much as 14%, with shipments remaining basically stable
- China (including Hong Kong) has emerged as its largest market, with a 24% share in both 2013 and 2014 followed by the United States with 19% in 2014:
  - Although the United States market share has fallen back from the average of almost 30% in the 2003 to 2007 period
- Australia has a larger presence than New Zealand on MENA, led by the United Arab Emirates and Jordan.
In the case of mutton, China (including Hong Kong) has emerged as the largest market with a 32% share in 2014 having displaced Saudi Arabia in 2010 (Fig 1.10):

- Other individual markets had a share of less than 10% in 2014 as Australia supplies a large number especially in MENA and South East Asia plus the United States
- And volume shipments have largely depended upon the domestic supply situation which, in turn have been influenced by climatic conditions and breeding flock developments.

Taking lamb and mutton as a whole, China accounted for 28% of its trade in 2014 and it has less dependence on this market than compared with New Zealand:

- The only other country to have more than a 10% market share was the United States with 14%, reflecting the diversity of Australian trade compared with New Zealand
- With the EU only accounting for 4%
- The total value of exports amounted to US$2.3 billion (£1.4 billion) in 2014.

The growth in the meat trade has also been the result of some switch from live to meat:

- Animal welfare issues resulted in a sharp downturn in live exports of over 50% between 2008 and 2013 (from 4.2 million to 2.0 million)
- Forcing the Government to introduce its Exporter Supply Chain Assurance System (ESCAS) in 2011 but it took until 2014 for the live export trade to start increasing again.

Fig 1.10 Australian mutton exports by major market, 2003-14

Source: GTIS, ABS

1 CURRENT SITUATION

1.3 NEW ZEALAND: THE SECOND LARGEST EXPORTER

The performance of the New Zealand sheep industry is somewhat different, with a less positive export development for lamb in recent years compared with Australia:

- Sheep farming has had to compete with both dairy farming (especially on the South Island) and forestry, which have offered better returns and as a result the breeding flock has been in decline:
  - Between 2003 and 2014 the number of breeding ewes fell by 26%, although lamb production only declined by about 10% thanks to productivity gains
  - With better quality land going into milk production and so sheep moving into more marginal areas (steeper/ lower quality land), including the uplands where they are in competition with forestry
- Lamb production and exports reached a recent peak in 2007 but there was then a sharp decline, with a low point reached in 2011 and 2012 before some modest recovery (Fig 1.11)
- Unlike Australia, mutton production and exports are of lower importance:
  - By 2013 and 2014, New Zealand exports were less than half those of Australia, although in earlier years the proportion has been nearer two thirds
  - Lamb production in New Zealand is currently around four times higher than mutton and exports by volume three times more and by value five times higher
  - With NZ sheep processors more aligned to development of lamb exports rather than mutton.

Fig 1.11 New Zealand lamb production and exports, 2003-14

Source: BLNZ
It is only in the last four years that there has been a major shift in New Zealand’s major export markets for lamb (Fig 1.12):

- The EU had been accounting for 50% of its total trade through to 2010 but in only two years the proportion had fallen to 40% and fell further to 38% in 2014 (undoubtedly an unprecedented low):
  - And more due to lower demand on the continent as the UK share of its total trade has only fallen from 22-24% during the 2003 to 2010 period to 19% in 2014
  - Whereas trade with Germany, France and Belgium has fallen away more sharply

- In contrast, the sharp growth in demand from the Chinese market (including Hong Kong) from 2011 has seen its share increase to 33% by 2014, compared with 7-10% in the 2003 to 2008 period:
  - And so higher dependence upon this market than Australia (24%)

- The growth for China/Hong Kong has also enabled New Zealand to switch its trade, especially in lower valued cuts, away from other global markets:
  - The share of markets outside of the EU and China/Hong Kong is now down to 29%, compared with around 40% in the 2003 to 2008 period.

China has also become the key market for New Zealand mutton:

- Shipments, which were still only 4,000 tonnes per annum at the beginning of the decade, had increased to 64,000 tonnes in 2014 to account for as much as 68% of its total mutton exports of 94,000 tonnes

- With no other individual market now having more than a 5% share and even for the EU as a whole the share was only 11% in 2014.

Taking lamb and mutton as a whole, then China/Hong Kong accounted for 41% of its trade in 2014:

- And it even overtook the total EU market in 2013, which by 2014 only accounted for 32% of total exports by volume:
  - Although by value, the situation is completely reversed, with the EU accounting for 43% of total NZ exports of US$2.5 billion (£1.5 billion), compared with China/Hong Kong at only 28% (valued at US$705 million):
    - As the average export price on sheep meat consigned to the EU was almost double that of product exported to China/Hong Kong.

The UK is somewhat unique in that it is both an exporter and importer of sheep meat, in both cases the third largest. However, whereas exports are mainly consigned to other EU markets, imports are predominantly from non-EU countries, notably New Zealand.

1.4 MARKET OVERVIEW

The FMD crisis of late 2000/2001 represented a low point for the UK sheep sector but since then the industry has picked up considerably:

- Although with the end of the ewe premium in 2005, production fell back in the second half of the last decade before stabilising and even increasing in the last five years

- While consumption also fell between 2008 and 2012, with lower imports and ongoing export increases contributing to this development, before some recovery in the last two years (Fig 1.13):
  - Sheep meat now only accounts for 6% of total meat consumption but per capita, at 4.6kg carcase weight equivalent, has still fallen by 30% since the year 2000 when its market share was over 8%

- Although there was a significant improvement in consumption in 2013 and then a slight rise in 2014

- The UK had been the second largest global importer through to 2011 until China overtook it from 2012 onwards. So the UK market inevitably plays a key part in global trade.

Fig 1.13 UK sheep meat production and consumption, 2000-2014

Source: AHDB Market Intelligence
1.4.2 EXPORTS

The foot and mouth disease (FMD) crisis had a major impact on the UK export performance but since then there has been a virtually continuous improvement:

- In 2001, exports only accounted for 12% of UK net production but by 2013 the proportion had increased to 38%, before edging back to 36% in 2014 (Fig 1.14):
  - However, anecdotal evidence would suggest there has been some under-recording of exports in recent years. The proportion currently exported is estimated at 40% by AHDB

- Exports in carcass weight equivalent amounted to 31,000 tonnes in 2001, based on official data from HM Revenue and Customs (HMRC), but from 2011 onwards have averaged over 100,000 tonnes per annum, reaching a total of 109,000 tonnes in 2013, the highest level since the mid-1990s when exports peaked:
  - While the value of chilled and frozen exports has increased from £78 million in 2001 to £384 million in 2013 before edging back in 2014

- And from being a large net importer, the UK is now self sufficient in sheep meat again.

For the UK export performance, while there continues to be market diversification, there is still a high dependence upon the French market (Fig 1.15 and Fig 1.16):

- France still accounts for 50% of the UK total (by product weight), although this is still well down on the share of 70% and more in the period 2003 to 2008

- In contrast, there has been a steady growth in trade with Germany, which now accounts for 10% compared with 5% in the 2003 to 2009 period

- On the other hand, there has been a disappointing performance in the Mediterranean region led by Italy, Spain and Portugal, where consumption is widespread but where the economic problems since autumn 2008 have been more severe than in Northern Europe:
  - With the region now only accounting for 6% of UK exports

- For extra-EU trade, it has only been in the last three years that it has become significant and by 2013 the proportion had increased to 17%, given the growth to Hong Kong, although it slipped back to 15% in 2014

- The only other key competitor to the UK within the EU is Ireland, although export volumes are only 40% of those of the United Kingdom

- Ireland though, has had greater success in developing its trade in cuts:
  - Which now account for over 60% of its exports and while the UK has had success in increasing this proportion, especially in 2014, it is still only 43%, although as recently in 2008 it was only 15%

- UK export data though, should be treated with a degree of caution, as, for example, there are inconsistencies in intra-EU trade flows:
  - When, for example, comparing with figures for the importing country and that not all exports are being recorded given the single market within the EU and hence lack of border controls.

For the Chinese market, the UK has yet to gain approval to supply the mainland but in 2014 had a 13% share of Hong Kong imports, supplying 2,470 tonnes (based on Hong Kong trade data):

- And shipments have increased sharply as only 950 tonnes were supplied in 2013 and 8 tonnes in 2008 making it the third largest supplier after Australia and New Zealand

- With product consisting almost entirely of frozen cuts, with chilled shipments only amounting to 70 tonnes in 2014

- UK export data though, shows a much higher volume of trade with Hong Kong:
  - In 2014 though there was an apparent small fall which may be due to more stringent checks on imported product and also that sheep meat stocks in Hong Kong/China have been increasing so impacting on import demand towards the end of the year.
By value there has also been a steady improvement in the UK export performance:

- In 2014, exports were valued at £379 million (US$628 million) with an annual rate of growth of 8% since 2003:
  - With volume exports increasing by 3% per annum and the average export price by 5% per annum over the same period to exceed £3,700 per tonne in the 2011 to 2014 period
- The UK still has an apparent trade deficit in sheep meat, as the value of imports in 2014 amounted to £407 million (US$675).

**1 CURRENT SITUATION**

**1.5 OTHER GLOBAL EXPORTERS**

The fourth largest global exporter is **Ireland** but, as with the United Kingdom, trade is focused on the EU market:

- It is the main competitor to the UK but its shipments are only around 40% of the UK level, as the domestic sheep industry is much smaller:
  - However, it is very export dependent given the small domestic market (Fig 1.17) and Irish lamb normally undercuts the price of British lamb
- Production has been in decline, given the end of the ewe premium from 2005, its poor structure and switch to other activities (both inside and outside agriculture):
  - Although in 2013 and 2014 production moved up again, partly given increased confidence in the sheep sector, even though competition from dairying has intensified and could cloud the long term outlook for sheep
- Ireland, like the UK, had been heavily dependent upon the French market which had a share of 60% in the mid-2000s, although this has now fallen to nearer 40%:
  - With diversification to other EU markets plus the ongoing trade with the UK
  - And now developing trade on the global market led by Hong Kong
- Ireland though, has had greater success in developing its trade in cuts.

The Horn of Africa and to a limited extent East Africa, are small exporters mainly to the Gulf States of the Middle East:

- Given only limited processing facilities that conform to international requirements and an inadequate cold chain through to final importer not helped by poor transport links:
  - Some product is even air freighted that adds to the landed cost
  - With animal health issues also a critical issue
  - And exports are mainly confined to goat meat rather than sheep meat
- Given both geographical proximity and poor infrastructure for meat then trade is dominated by live, especially from Sudan and Ethiopia with access to ports on the Red Sea
- For sheep meat exports to the Middle East:
  - Sudan exported 3,200 tonnes in 2012, mainly to Jordan
  - Ethiopia only exported 1,300 tonnes in 2013, which was far less than the volume of goat meat shipped (12,000 tonnes)
  - With even smaller volumes from Kenya
- High population growth is increasing domestic demand and so restricting export availability
- Production is dominated more by goats, given that management requirements are much lower and they are more suited to the harsher environment (lack of year round pastures, normally long dry season)
- Until considerable investment takes place (although there has been some over the years, for example, financed by international aid agencies) then their potential as major suppliers will remain constrained:
  - And such investment would have to be considerable, from improving genetics through to an efficient cold chain
  - And probably not even viable in most cases, with goat meat the more likely investment option.
India and Pakistan export slightly larger volumes, with trade again focussed on the Middle East but there is no indication of them emerging as major exporters:

- **India** exported 21,400 tonnes of sheep meat in 2013, all of which was consigned to the Middle East, led by the United Arab Emirates:
  - This was marginally up on 2008 but still well down on the 59,500 tonnes recorded in 2009
  - And no real indication that sheep meat exports have built on the success of buffalo meat

- **Pakistan** exported 7,600 tonnes of sheep meat in 2013, virtually all of which was consigned to the Middle East, led by Saudi Arabia, but with volumes lower than in the 2010 to 2012 period

- Lack of availability given strong and growing domestic demand:
  - Not helped by the fact that product is normally air freighted, which restricts volumes and adds to the product cost

- Both countries though, benefit from product being halal slaughtered.

Fig 1.18 Combined sheep meat exports from India and Pakistan by major market, 2013

The main characteristics of the Indian and Pakistani sheep sector are as follows:

- It is focussed on small scale production, and both mainly a secondary activity and consumed in the informal sector as mutton, with only limited quantities entering the formal marketing chain:
  - Characterised by low productivity, under investment, marketing problems
  - Shortages and even falling grazing resources
  - And with lamb production of much lower importance than goat meat in particular and mutton

- But with some investment in intensive managed units, in southern India, for example

- Increasing domestic demand:
  - As sheep and goat meat is the main alternative to poultry meat because of cultural and religious reasons preventing most groups from consuming bovine meat (especially in India) and pig meat (especially in Pakistan)
  - Given the ever increasing middle class but demand still limited by high prices

- Lack of modern processing facilities, with the exception of some modern slaughter plants in both India and Pakistan, some of which supply the export market:
  - With the Indian Eleventh Five Year Plan (2007-2012) including investment incentives to modernise the processing sector and Pakistan doing something similar
  - In the long term there is the possibility that India could even be a net importer, given that demand seems to be increasing faster than supply.
Table 1.1 China/Hong Kong sheep meat balance

<table>
<thead>
<tr>
<th>000 tonnes cwe</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014 (est)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>1,478</td>
<td>1,800</td>
<td>2,070</td>
<td>2,044</td>
<td>2,045</td>
<td>2,081</td>
<td>2,095</td>
</tr>
<tr>
<td>Imports (mainland)</td>
<td>18</td>
<td>42</td>
<td>58</td>
<td>84</td>
<td>127</td>
<td>262</td>
<td>289</td>
</tr>
<tr>
<td>Imports (HK)</td>
<td>4</td>
<td>5</td>
<td>22</td>
<td>20</td>
<td>15</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Imports</td>
<td>22</td>
<td>47</td>
<td>80</td>
<td>104</td>
<td>142</td>
<td>281</td>
<td>309</td>
</tr>
<tr>
<td>Exports</td>
<td>1</td>
<td>27</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Consumption</td>
<td>1,499</td>
<td>1,820</td>
<td>2,140</td>
<td>2,143</td>
<td>2,184</td>
<td>2,360</td>
<td>2,401</td>
</tr>
<tr>
<td>– per capita (Kg)</td>
<td>1.2</td>
<td>1.4</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Source: AHDB Market Intelligence

In terms of the demand for sheep meat:

- Per capita consumption only amounts to about 1.5kg cwe and mainly consumed by higher income consumers in the main urban areas. It is not widely consumed in poorer rural areas, except, presumably, in major producing areas such as Inner Mongolia:
  - But given the importance of wool production, most has been consumed in the form of mutton (and sold as such) rather than lamb, although the latter is increasing
  - Per capita consumption in urban areas is twice that of rural areas and is mainly concentrated in the north and north west of China, which are some of the main producing areas

- As demand has been growing recently, prices have increased sharply, which in turn has contributed to the surge in imports:
  - Indicating that there is an underlying demand by some consumers and is not just a switching between meats
  - Helped by the spread of ethnic cuisines (eg Islamic and Mongolian) to supplement the traditional hotpots utilising sheep meat.

Price developments at the producer level indicate a sharp rise in the last six years, both in absolute terms and relative to pigs (Fig 1.19):

- By 2014, sheep prices had risen by 53% compared with 2008, in contrast to a price fall of 3% for pigs and inevitably with retail price showing a similar divergent trend:
  - But, of course, as pig meat is politically sensitive, given its high weighting in the Chinese food basket then the Government controls its price, including the use of a stocks policy
  - And in Beijing the price divergence is even greater

- With a similar price rise for sheep as the other ruminant, cattle

- In December 2014, the national wholesale price of mutton averaged 54.23 Yuan per kg, nearly three times higher than the price of 19.21 Yuan for pork. The price of beef was almost identical to that of mutton:
  - The price of chicken, which competes strongly with pork, averaged 15 Yuan
  - It also means the retail price of sheep meat is almost three times that of pig and poultry meat, whereas as recently as 2005, the difference was nearer 40%

- Such high prices and low entry costs for potential sheep farmers mean that sheep production can be a more viable farm enterprise than pigs in some areas.

Fig 1.19 Chinese livestock producer prices, 2008-2014

Source: National Bureau of Statistics

1.6.2 IMPORTS

The profile of Chinese imports shows a marked increase for sheep meat, both lamb and mutton, in recent years:

- Total imports of both mutton and lamb (based on import statistics for both mainland China and Hong Kong) averaged 80,000 tonnes product weight in 2009 and 2010 period but by 2014 they had increased to 300,000 tonnes (Fig 1.20):
  - New Zealand has been the largest supplier throughout the 2008 to 2014 period, with market share ranging from 52 to 56%
  - The balance is mainly supplied by Australia, although Uruguay has emerged as a small supplier (market share of 3% in 2013 and 2014)
  - Most product is shipped to mainland China, as Hong Kong only accounted for 6% of the total in 2014 but with the latter still significant, as it can be a route for the grey trade

- And the value of trade in 2014 amounted to US$1.21 billion (£730 million), compared with US$138 million (£74 million) in 2008:
  - While the average price increased from US$2,230 to US$4,030 per tonne over the same period
• It should be noted though, that imports may be higher than indicated officially, although any grey trade is not considered a major issue unlike for other meats:
  • Vietnam is a destination for some sheep meat exporters (and yet it does not all show up on Vietnamese import data) and there are similar inconsistencies in the data for Hong Kong

• Based on export statistics for Australia and New Zealand, Chinese imports of lamb accounted for 55% of its imports in both 2013 and 2014, although this is well down from around 80% in the 2008 to 2011 period:
  • Combined Australian and New Zealand lamb shipments averaged 80,000 tonnes per annum in the period 2008 to 2011 but by 2013 had increased to 149,000 tonnes, with a further increase to 159,000 tonnes in 2014 (Fig 1.21)

• Imports of mutton have also increased sharply, especially from 2012 onwards and based on data for Australia and New Zealand amounted to 121,000 tonnes in 2013 and 127,000 tonnes in 2014 (Fig 1.22)

• Chinese import data (including Hong Kong) shows small volumes of sheep offals are imported. In 2014, for frozen (the main category imported) this amounted to 28,500 tonnes (up from 19,700 tonnes in 2012), with the United Kingdom the third largest supplier after Australia and New Zealand.

A closer examination of the lamb trade shows the predominance of cheaper cuts shipped in frozen form:
• Both Australia and New Zealand report that the main demand is in front-end cuts, with the key ones being flaps (flank), breast and ribs:
  • MLA reported that in 2014 China and Hong Kong accounted for 69% of its total exports of breast and flaps:
    – And amounted to 29,100 tonnes, which accounted for 59% of total Australian shipments to this market.
    – The other main categories were manufacturing lamb (rack cap) at 9,700 tonnes and shoulders (3,600 tonnes)
  • Trade is dominated by frozen bone-in cuts
  • However, in 2014 New Zealand shipped 10,200 tonnes of frozen lamb carcases (5,300 tonnes in 2013 and only 53 tonnes in 2012), virtually all of which was confined to mainland China:
    – Suggesting that local cutting plants have also found markets for premium cuts among higher income consumers.

• On the other hand, the chilled lamb trade is much smaller and amounted to:
  • 6,200 tonnes from Australia in 2013 and 9,800 tonnes in 2014 mainly bone-in cuts
  • For New Zealand, the quantity is even lower at 300 tonnes in 2014.
Joint ventures are contributing to the growth in sheep meat imports and clearly represent a way of opening up the Chinese market:

- Heilongjiang Grand Farm, based in Inner Mongolia, is a significant sheep meat processor (although excluding slaughter), with its own retail outlets (including concessions in supermarkets) and also supplies the food service sector. It has a 14-year association, including the setting up of a joint venture last year, with the New Zealand company Alliance Group from which it sources most of its lamb:
  - Grand Farm is the largest sheep meat importer and is also moving into high valued cuts, having already focussed onto turning low value cuts into branded lamb burgers, meatballs and kebabs
- Grand Farm also signed an agreement with the Australian red meat processor V and V Walsh in August 2014 for the long term supply of sheep meat (and also beef) to China.

Chinese import demand is inevitably influenced by consumer requirements and characteristics:

- The majority of consumers have limited purchasing power, hence demand for lamb is mainly limited to cheaper cuts (and also the fifth quarter). There is also a lack of ovens in the home so cooking is focussed on hot pots (utilising breasts and flaps), which can be heavily seasoned. Lamb is also used in barbecues (kebabs) and also sold rolled (flank and boneless shoulder) and minced/balls
- The fact, though, that some local cutting plants are processing both domestic and some imported lamb carcases, indicates that markets are also emerging for some of the premium cuts:
  - With domestic lamb distributed in both chilled and frozen form
- Markets for premium imported cuts hardly exist and so should be seen as a long term objective and with the need to meet the requirement of provenance and product quality although:
  - Small volumes of domestic lamb are already being marketed as organic
  - And middle class consumers are increasingly prepared to pay more for imported food items

The analysis thus implies that there are two distinct markets, with an emerging premium market supplementing the much larger lower value one:

- With wet markets still important as a major supply source for cheaper meat.

1.6.3 RETAILING AND FOOD SERVICE STRUCTURE

The growth in the modern retail sector, with its more sophisticated distribution chain, and upmarket hotels and restaurants (HR) is contributing to these changing demand developments for sheep meat:

- Such outlets place more emphasis on western foods
- The modern retail sector includes a number of foreign companies with hypermarkets and smaller outlets, as well as national retail food groups which are expanding even more rapidly than the multi nationals:
  - Wal-Mart has more than 380 stores, although some rationalisation has been taking place. It also has membership wholesale outlets (Sam’s Club)
  - Carrefour, Auchan, Metro, Tesco, AEON (Japanese outlet) and CR-Vanguard (a Chinese company that started in Hong Kong)
  - Supermarkets now account for 44% of food sales in China and the number of outlets is growing by 8% per annum:
    - And while they are mainly concentrated in the main urban centres, Government policy now favours their development in more rural areas as well
- The HR sector is growing rapidly, being initially driven by expatriates, overseas Chinese entrepreneurs and foreign tourists and officials on expense accounts (but which the Government tightened up on at the end of 2012). Now it is being increasingly driven by the ever-growing middle class consumers eating out more and returning Chinese tourists who may have got an appetite for western food:
  - In the major cities, out of home consumption averages 20% of the total market. More international events have also driven demand and raised standards:
    - Resulting in emergence of more international hotels, world-class restaurants and high-end food service restaurants in the major cities
    - Such outlets can form part of a marketing strategy to penetrate new opportunities for premium lamb products.

The upmarket HR sector includes many international groups:

- Major international hotel groups include the International Hotel Group (Intercontinental, Crown Plaza, Holiday Inn), Accor Hotels and Resorts (Softel, Pullman), Cendant (Howard Johnson, Wyndham), Starwood Hotels and Resorts Worldwide (Sheraton), Marriott Hotel Group (Renaissance, Marriott), Shangri-la Hotel and Kempinski Hoteliers
- Chains of full service restaurants such as Pizza Hut and Little Sheep (both owned by Yum! Brands Inc) and fast food restaurants especially KFC and McDonalds
- Such outlets normally bulk-buy as a group and represent some of the largest markets for imported foods.

1.6.4 IMPORT TARIFFS

Import tariff rates on sheep meat give a competitive advantage to New Zealand:

- China has been a member of the WTO since December 2001 and the Most Favoured Nation (MFN)-bound tariff rate for all categories of lamb (coming under the CN code 02044300, frozen carcases/half carcases: the base rate (before October 2008) of 12% has been progressively cut during the transition period to 2.7% in 2014 and 1.3% in 2015
- But New Zealand signed a FTA with China in April 2008, which came into effect in October 2008 and from 2016 no tariffs will apply. For the two key categories of lamb imported from New Zealand:
  - 02044200, frozen bone in cuts: the base rate (before October 2008) of 12% has been progressively cut during the transition period to 2.7% in 2014 and 1.3% in 2015
  - 02044300, frozen carcases/half carcases: the base rate of 15% has been progressively reduced to 3.3% in 2014 and 1.7% in 2015
• The preferential treatment for New Zealand has put Australian lamb at a competitive disadvantage and it has lost market share:
  • In both 2008 and 2009 (based on their lamb export statistics), Australia accounted for 56% of combined exports for Australia and New Zealand to China (including Hong Kong) but in 2012 to 2014 the proportion was down to 37%, given a more marked increase in trade for New Zealand
  • But Australia has now agreed, in November 2014, an FTA with China, although as there is a transition period of eight years (the same length as New Zealand) this will continue to put Australian product at a competitive disadvantage until its own tariff rate becomes zero. Offals are included in this agreement
• Chile, a small global exporter, also has an FTA with China under which no duty is paid, while ASEAN countries are also subject to zero tariffs under the MFN:
  • But none are suppliers of sheep meat to China.

1 CURRENT SITUATION
1.7 EUROPEAN UNION: THE SECOND LARGEST IMPORTER

1.7.1 MARKET OVERVIEW
The EU sheep meat market can be characterised by both declining production and consumption, with sheep meat now of only marginal significance in most countries of the EU (Fig 1.23):
• The long term decline in EU production has averaged 1.9% per annum:
  • Given the poor structure of the industry (small farm size, the age profile of sheep farmers) and low profitability compared with other agricultural enterprises:
    – With the exception of the UK, which is increasing its share of EU sheep meat output
  • Exacerbated by CAP policy, with cutbacks in support, including the end of the ewe premium from 2005 in most member states
• Falling consumption exacerbated by falling imports from the global market from 2010 onwards
• And a level of sufficiency that has averaged little more than 80%, although it has moved up to 85% in the last three years
• Yet the EU has even developed export markets in the current decade of both live sheep and sheep meat to MENA and now Hong Kong.

1.7.2 CONSUMPTION AND DEMAND
Demand for sheep meat has been under pressure since the problems of the EU economy started in September 2008 and there is no indication that demand is picking up again in most countries:
• This clearly has had implications for demand for sheep meat:
  • In most member states it is the highest priced and with consumer spending under pressure there has been a switch to cheaper meats
  • And increasingly, only consumed on special occasions such as Easter and Christmas, with lamb increasingly becoming a niche market for those consumers able to afford it
• With older age consumers dominating demand:
  • For example, buyers of lamb aged 35 years and under only accounted for 6% of household purchases in France and 10% in the UK
  • And accompanied by supply shortages, per capita consumption in the EU is now only down to 2kg carcase weight per annum (Fig 1.24):
    • Given a decline of over 25% in the market between 2000 and 2014
    • And in some major meat markets, such as Germany and Italy, it only averages 1kg and even in France it is down to 3kg and below 5kg in the UK
  • It is a marginal meat in the consumer basket, to the extent that it only accounts for 2.5% of the EU meat market down from 3.5% in the year 2000.

Source: AHDB Market Intelligence
1.7.3 IMPORT VOLUMES AND EU TARIFF QUOTAS

The EU has a large deficit in sheep meat but imports have still been in decline from 2009 onwards (Fig 1.25):

- In response to the declining EU demand with the onset of the economic problems
- Tightening of the global sheep meat market with the downturn in export availability for New Zealand, accompanied by the emergence of China as a major market
- Trade is dominated by New Zealand and from 2003 onwards its market share has been in the range of 82-85% and now mainly supplying lamb with some switch from mutton
- Australia is the only other significant supplier whose market share has generally been in the range 7-9%, also with a steady switch to higher valued lamb in recent years:
  - The Australian share actually increased to 11% in 2014 because of shortages of New Zealand product
- However, there has been a major shift to higher value chilled, which in 2003 only accounted for 19% of total EU imports, a share that has subsequently doubled by 2014:
  - Although there has been some small fall compared with the peak volume flow of 66,000 tonnes product weight in 2010 as it was 57,000 tonnes in 2014
- With increased prices contributing to the decline in imports:
  - Prices increased sharply in the period 2010 to 2012, before falling again in 2013, as lamb had become too expensive and so had to be promoted (Fig 1.26)
  - With similar developments for both chilled and frozen sheep meat.

Tariff quotas apply on trade with the EU and this also impacts on import volumes:

- Following the introduction of the EU Sheep Meat Regime in October 1980 and agreement with 12 potential supplying countries. Market access was either in the form of voluntary restraint agreements (VRAs) or import quotas. Within quota, a 10% customs duty was charged but there were no import levies
- Tariff rate quotas (TRQs) were then agreed under the GATT Uruguay Round and tariff rates reduced to zero from 1 July 1995. The tariff quota levels were based on historical quotas but with some adjustments
- Outside of quota, import levies applied are so high that all sheep meat is imported through the tariff quotas
- New Zealand has by far the largest quota, accounting for 80% of the total quota allocations.

New Zealand though, is no longer taking full advantage of its WTO tariff rate quota:

- Whereas New Zealand was filling its quota through to 2009, it has progressively cut back on its shipments to the EU and in 2014 only 68% of its quota was utilised (Fig 1.27)
- This contrasts with the much smaller quota for Australia, yet it has continued to largely fill it:
  - As its lamb export industry has developed considerably over the years
  - It has even been critical of its small quota relative to New Zealand and even pressed for it to be increased
- Of the other, but even smaller suppliers, Uruguay, Chile and Iceland had normally been close to filling their quotas but even for the two former countries this is no longer the case (Table 1.2):
  - With Uruguay, for example, now increasing its trade with China
- In other words, supply constraints rather than market access are increasingly determining the level of trade with the EU, even if it is supposedly a premium market:
  - Probably, only Australia would be in a position to significantly increase its shipments if market access allowed and that would probably have to wait until the WTO Doha Round is agreed.
Of the member states, the UK is by far the largest importer from the global market. It also imports smaller quantities from other EU countries, notably Ireland.

- New Zealand has continued to dominate the UK import trade and there have been no major shifts by supplying country (Fig 1.28):
  - Since 2003, New Zealand market share has always been in the range of 71-76% and until 2011 the UK was its largest market
  - Australia, with market share remaining fairly consistent at around 12% until increasing to 15% in 2014 as it took advantage of shortages of New Zealand product, and Ireland the only other significant suppliers
  - However, as for the EU as a whole, there has been a switch from frozen to chilled, with the latter only having a market share of 19% in 2003 but which rose to 45% in 2013, before falling to 42% in 2014:
    - And it is the chilled lamb which competes head-on with UK product, especially in the early months of the year.
1 CURRENT SITUATION

1.8 OTHER IMPORT MARKETS

The Middle East/North Africa (MENA) and especially the Gulf States is a critical region for imports:

- Based on estimates and actual data for some MENA countries and export data for Australia and New Zealand then sheep meat trade for the region amounted to over 180,000 tonnes in 2013:
  - While production amounted to an estimated 1.5 million tonnes (17% of global output)
- The two largest import markets are the United Arab Emirates and Saudi Arabia:
  - With other Gulf states also significant importers of sheep meat, while small quantities are also imported into North Africa (mainly live especially to Libya) and Iran
- With virtually the whole region having a tradition of consuming sheep meat:
  - Satisfying a whole range of consumer markets from cheap mutton to prime lamb cuts depending upon consumer purchasing power:
    - With lamb carcases the main driver of this trade rather than cuts
    - And for Australia and New Zealand, the two key suppliers, 65% of trade is in lamb and 35% in mutton
- With demand growth fuelled by economic growth, led by oil, and population growth of around 2% per annum:
  - And with consumers in the Gulf States in particular having a high purchasing power
- But sheep meat has had to compete increasingly with poultry meat that is cheaper in price and more widely available (whether home produced or imported) and, to a lesser extent, beef.

In terms of the major suppliers (Fig 1.29):

- Australia is by far the largest, with a market share of around 45%, followed by New Zealand:
  - This is based on trade data for the four main importers of Saudi Arabia, United Arab Emirates, Jordan and Kuwait but whose figures include goat meat
- Australia and New Zealand are especially dominant in the higher value markets of the Gulf States, supplying both lamb and mutton to retail outlets and food service.

![Fig 1.29 Major sheep meat exporters to the Middle East, 2013 (includes goat meat)](source: Based on data from UN Statistics Division)

In the case of the United States, the sheep meat market is insignificant, compared with the overall meat market and import requirements only modest:

- Per capita consumption is now down to only 0.4kg cwe and is basically a niche market, although the total market size still amounts to 150,000 tonnes:
  - And mainly confined to ethnic groups (Greek, Hispanic, Moslem)
- Domestic production is now down by one third, compared with the year 2000:
  - Given low profitability (including lower wool returns, competition from imports, changes in consumer preferences impacting on prices, higher costs associated with grain finishing) and poor production structure
  - But at least it has meant that import demand has not fallen to the same extent and even increased through to 2007 to 84,000 tonnes product weight, before falling again through to 2012:
    - Followed by another recovery to 78,000 tonnes by 2014
  - But it is still a high-value market, with the import price averaging US$8,600 per tonne in 2014:
  - Valuing trade at US$676 million, equivalent to 55% of the value of the China/Hong Kong market
- And offers the key supplies of Australia and New Zealand (combined 99% share) with market opportunities for premium cuts of lamb, especially legs, with a much smaller trade in mutton (15% of total imports):
  - Most high-valued cuts are consigned to the north-east (to both food service and retail), where per capita consumption is almost double that of the national average given high incomes in the region and that lamb is an expensive protein
  - Including a steady switch to chilled cuts.
- In the case of India, imports are negligible at present, although it has been considered to be a significant importer in the long term
  - Australia recognised over a decade ago that there was scope for supplying the growing food service sector but trade has remained negligible:
    - Not helped by the 30% import tariff.
2 EXISTING FORECASTS

2.1 GLOBAL OVERVIEW

There are a number of long term forecasts that have been recently published, with the key ones consulted being:

- Meat and Livestock Australia ‘MLA Australian sheep industry projections 2015’. (To the year 2019). Published in February 2015
- Ministry of Primary Industries (New Zealand) ‘Situation and Outlook for Primary Industries (SOPI) 2014’. (To the year 2018). Published in June 2014
- But some of these are still subject to a degree of caution, given some apparent data deficiencies and that some are projections (based on historical developments and unchanged future policy) rather than forecasts.

In addition, the strategic market research company GIRAG published its own forecasts of the global sheep meat market through to 2020. While this report is now somewhat dated, it does give some valuable perspectives about long term key factors:


The forecasts and projections though, all point to the following key developments and which clearly have implications for trade flows:

- Ongoing tight supply situation in the key exporting countries of Australia and New Zealand, with modest rises for the former but somewhat more stable in New Zealand:
  - With little prospect for significant growth for other exporting countries
- Ongoing global demand growth with China the key market
- In turn, these developments should contribute to a firm market for sheep meat in total and lamb, although forecasts/projections of developments inevitably vary
- Although all the reports paint a broadly consistent picture for sheep meat.

The OECD-FAO projections to 2023 that include goat meat point to most change taking place in developing countries, led by China:

- Global production will increase by 28% by 2023 or 3.8 million tonnes, compared with the 2011-2013 base period, representing annual growth of 2.3% (Fig 2.1):
  - But developed economies will only account for 12% of the global volume growth as most will be concentrated in Asia and Africa
- Global consumption growth will inevitably increase by a similar amount:
  - But per capita will only increase by 1.3% per annum after allowing for the global population increase (Fig 2.2):
    - Although it still represents a considerable improvement on the 0.3% per annum increase in the period 2000 to 2013
  - And almost entirely the result of increases in developing economies of Africa, China, the Middle East and other Asian countries
  - Consumption in developed economies is projected to increase by only 0.7% per annum
  - Sheep and goat meat will become even more marginal in the global meat basket, accounting for only 5% of the total by 2023 and only amounting to 1.9kg cwe per capita:
    - But it will not lose market share to beef, although it will to poultry meat
- Global trade will increase by 1.5% per annum. again focussed on developing economies:
  - China is expected to account for around two thirds of the global growth in imports
  - Contrasting with imports declining for the developed economies, including North America and Europe, by 0.4% per annum
- The global price will increase by 1.7% per annum, which seems surprisingly small compared with the growth of 9.0% per annum in 2000 to 2013;
  - The GIRAG forecasts of 2010 also pointed to further long term growth in global prices.

Fig 2.1 Global sheep meat production and exports, 2000-2023 (includes goat meat)

Source: OECD
### 2 EXISTING FORECASTS

#### 2.2 EXPORTING COUNTRIES

**For New Zealand**, both the OECD and the Ministry of Primary Industries suggest a stable situation:

- The OECD projections indicate long-term stability in both sheep meat production and exports (Fig 2.3):
  - Given the anticipated high milk prices, expected over the outlook period, with milk production increasing by 2% per annum
  - But a fall in the lamb schedule price until 2019, before growth of 2% per annum through to 2023
  - The Ministry of Primary Industries has a further, albeit only small, decline in the breeding flock, although offset by productivity increases (higher lambing rates and carcase weights):
    - With a 1% per annum increase in lamb exports through to 2018, the result of growing Asian demand for cheap cuts and a pick up in demand for traditional high-value cuts (leg and middle) in the European Union
    - And lamb export prices increasing by 5% per annum through to 2018 and the schedule price for lambs rising by 3.5% per annum
  - As GIRAG in 2010 indicated, the breeding flock will continue to be under pressure with other more profitable agricultural enterprises pushing flocks into more marginal land:
    - With productivity increases, though, helping to offset the decline in forage areas.

**For Australia**, the OECD, MLA and GIRAG all indicate a steady growth in sheep meat production and exports:

- The OECD projections indicate a growth of 2% per annum in total sheep meat production, with exports rising by 4% per annum as domestic consumption is projected to decline:
  - With low cost enterprises (with large flocks and low stocking densities) likely to continue to increase in importance
  - And sheep meat prices rising by 3% per annum, which contrasts with the projections for New Zealand
  - With export demand growth for similar reasons to that of New Zealand but, as GIRAG point out, it will be the growing Middle East market that is a more important factor for Australia than for New Zealand
- The MLA forecasts cover both lamb and mutton and, for both lamb and sheep meat in total, they indicate future production growth of 3% per annum from 2016 to 2019, after falling in the short term:
  - Assuming an end to the current drought, with subsequent flock rebuilding as at present, the breeding flock has fallen because of the drought
  - Given confidence in the lamb sector and assumed ongoing favourable returns, although tempered by continued competition from cropping and the aging profile of sheep producers:
    - Lamb exports are expected to show growth from 2016 onwards, in line with the rise in production (Fig 2.4):
      - In response to increased demand from China, the Middle East and the United States, even if in the short term, shipments to these markets decline
      - And reduced competition from New Zealand
    - That while there will be a recovery in live sheep exports, they will not return to the levels of the previous decade and will only account for 12% of total live and meat exports in 2019:
      - With MENA demand continuing to be increasingly met by regional suppliers
      - Although they would still amount to 65,000 tonnes cwe in 2019, based on the MLA forecasts.
For the **United Kingdom**, no long term forecasts have been published in recent years by organisations such as the Agricultural & Horticulture Development Board.

For **India** and **Pakistan**, the OECD projections indicate that:

- There will be further growth in production in India, which is projected at just over 2% per annum through to 2023, with exports increasing by 150% by 2023 or nearly 7% per annum, compared with current levels of 20,000 tonnes cwe
- For Pakistan, the production growth will average just under 2% per annum, with exports projected at 27,500 tonnes cwe by 2023 (compared with 20,000 tonnes at present)

**NB** The projections assume there will be no imports for either country over the next 10 years.

### 2 EXISTING FORECASTS

#### 2.3 IMPORT MARKETS

For China, the OECD projections, which include goat meat, indicate further growth in sheep and goat meat production and imports (Fig 2.5):

- Production growth is projected at 2% per annum through to 2023, encouraged by higher prices, while imports are projected to grow by almost 4% per annum
- But as imports will remain low relative to production, the consumption increase will amount to 2.1% per annum compared with nearer 6% per annum historically:
  - Driven by increased demand from the middle classes
- With producer prices projected to increase by 5% per annum, compared with 8.5% per annum historically.

For the EU, the projections made by the European Commission (which are also used by OECD) indicate a stable situation through to 2024 (Fig 2.6):

- With no significant change in production, imports or consumption
- While lamb producer prices in the EU are expected to continue to increase by just over 1% per annum, a slower growth than its projection of the global price:
  - And the gap is only projected to narrow by a small amount from being two thirds higher in 2013 and 2014 to nearer 60% by 2024 as a result of continuing ‘border protection’ (Fig 2.7)
  - And assumes some marginal strengthening, after an initial weakening, in the euro exchange rate from US$1.33 in 2013 and 2014 to US$1.37 by 2024
- And assumes increased profitability of sheep production, partly since some member states have decided to implement voluntary coupled support as a result of the latest CAP reforms
- Imports are expected to remain well within tariff quotas, with expansion of sheep production in New Zealand limited by competition from the dairy sector
- With EU consumption becoming even more marginal, averaging 1.8kg per head by 2024, compared with 2.1kg at present. It assumes though, that sheep meat is relatively price inelastic:
  - In the case of mutton, GIRAG point out the growing Muslim consumer base which boosts the market for culled ewes
- In contrast, the GIRAG forecasts made in 2010 pointed to further long term declines in production and consumption:
  - Due to high and expected rising production costs, a development that has subsequently been borne out, contributing to ongoing low profitability
  - Although expected increased import penetration so preventing any long term decline in consumption:
    - But note in reality, this has not been borne out since 2010, as imports have been declining.
For smaller global markets, OECD projections generally indicate only small changes in import demand through to 2023 (Fig 2.8):

- Including the main developed economies of North America and Japan, although these are valuable premium markets:
  - But with little long-term growth potential as there is no tradition of consuming sheep meat, not helped by its high price
  - And which are entirely supplied by Australia and New Zealand and which have a good reputation on these markets
- Although with some growth in sub-Saharan Africa (mainly South Africa), Malaysia and possibly Saudi Arabia:
  - Which are also mainly supplied by Australia and New Zealand but with India, Pakistan and Ethiopia also being smaller suppliers to the Saudi market
  - With Namibia being the main supplier to South Africa.

In the case of the key MENA region, the GIRAG report and other analyses point out that through to 2020:

- Sheep meat imports will continue to rise due to increasing domestic demand, while climatic factors and poor structure will limit production growth:
  - With live imports also remaining important because of cultural and religious factors (demand for freshly killed meat, ritual slaughter)
  - With the strong culture of consuming sheep meat, both by the local population and foreign workers, and growth helped by population and income increases:
    - By 2025 the population of the region can be expected to have increased by 100 million compared with current levels
  - Although with demand constrained by rising prices, including relative to other meats
  - Australia will remain the key supplier, helped by the fact that New Zealand is short of supply to meet the growing demand:
    - Both supplying countries benefit from modern processing facilities that satisfy halal requirements
  - In addition, the latest MLA forecasts indicate that food service demand for sheep meat will be boosted by the construction of 100 new hotels in Dubai, World Expo 2020 and the 2022 FIFA World Cup.
3 CRITICAL FACTORS AFFECTING LONG TERM DEVELOPMENTS

3.1 GLOBAL OVERVIEW

There are a number of critical factors and considerable uncertainty surrounds some of them.

There is the extent to which there are further developments in international trade agreements and how they will impact on global sheep meat trade:

• Progress on the Doha Round has been very slow with agreement still not yet in sight in spite of 13 years of negotiations:
  - Suggesting there is still a long way to go and even then there would be a transition period (for the Uruguay Round it was over five years for developed economies)

• Implications of bilateral trade agreements, both those already signed and these under negotiation, with the most important for sheep meat being:
  - The Free Trade Agreements (FTAs) between New Zealand and China and now Australia and China
  - And to a lesser extent the FTA under negotiation between Australia and the Gulf Cooperation Council and the ASEAN-Australia-New Zealand FTA
  - The Trans-Pacific Partnership (TPP), given that this includes the United States, Australia, New Zealand and smaller sheep meat importing countries (individual annual trade of up to 20,000 tonnes) namely Canada, Japan, Malaysia, Mexico, Singapore and Vietnam:
    - Negotiations are still taking place (having first started in 2005) with agriculture being one of the contentious issues but agreement is one of the main objectives of the Obama administration
  - Such FTAs would give both Australia and New Zealand sheep meat exporters additional market opportunities and advantages

• And to a small degree (and so benefitting EU sheep meat exporters) whether the EU is able to successfully negotiate and complete FTAs such as the TTIP and ASEAN:
  - And, for example, whether a small sheep meat export trade can be developed with Canada as a result of the already agreed CETA.

Global long term economic and social developments will inevitably impact on sheep meat demand and in particular:

• The extent to which the global economy continues to recover:
  - Autumn 2014 forecasts from the IMF indicate the global economy will grow by around 4% per annum in the longer term, compared with just over 3% per annum in the 2012-14 period:
    - Although given recent developments, low oil and energy prices could well impact positively on growth rates for most economies and may have to be factored in when new forecasts are made, especially if the long term outlook becomes one of lower energy prices
  - OECD projections for the developed economies indicate GDP will grow by 2.2% per annum in the long term, compared with 1.5% in the 2011 to 2013 period
  - And inflation is expected to remain largely unchanged at 2% per annum

• What will be the future economic growth in China, which inevitably seems to be slower than historically, and the extent to which demand growth can be fuelled by increased domestic consumer spending rather than export growth:
  - With current GDP growth of around 7.5% per annum that is assumed to slow down to nearer 6% over the next 10 years

• Global population growth, which is currently projected at 1% per annum in the next 10 years based on OECD/FAO projections.
Exchange rate changes are a critical uncertainty that could impact on both the returns to sheep meat exporting countries and the prices consumers have to pay in import markets (Fig 3.1):

- Both New Zealand and Australia have had to contend with stronger currencies in recent years so adversely impacting on returns to sheep producers and/or impacting on international sheep meat prices (which are normally set in US dollar or euro)
- Most long term forecasts point to a small strengthening of the US dollar against other currencies:
  - Yet foreign exchange markets are inevitably very volatile, making it almost impossible to forecast developments with any degree of confidence.

![Fig 3.1 Exchange rates affecting global sheep meat trade, 2005-2014](image)

Source: Eurostat

Global demand developments for sheep meat will also be influenced by the situation for competing meats and especially beef, for which demand growth has been strong:

- Demand for beef has been increasing sharply in developing economies in the last few years, again led by the Chinese market but also other Asian markets:
  - Beef is more widely consumed than sheep meat
- Beef supply has hardly been able to keep pace with demand, resulting in sharp rises in global prices
- As a result, global beef prices have increased at a faster rate than sheep meat prices in the last 10 years:
  - Compared with the 2002-2004 average, global beef prices have increased by 130% and sheep meat by 105%
- And the situation seems likely to continue, at least in the next five years, given falling production in Australia and the United States and only small increases or even small declines in Brazil:
  - These are the three largest global exporters
- Such developments could well continue to have a positive impact on global beef prices:
  - And even result in some limited switch to beef production in extensive grazing countries such as Australia if there is a widening of the price differences between beef cattle and sheep in favour of the former:
    - And so the profitability of beef improves, relative to lamb
  - Data for Australia from ABARE (Australian Bureau of Agricultural and Resource Economics and Sciences) indicates that in the three years to 2013-14, net farm income for sheep held up better:
    - And was much higher than for beef cattle, which in turn was also well below the long term average.

3 CRITICAL FACTORS AFFECTING LONG TERM DEVELOPMENTS

3.2 CHINA

China is becoming an even more critical player on the global sheep meat market and the analysis below is intended to clarify the key issues, especially in relation to demand.

3.2.1 FUTURE DEMAND DEVELOPMENTS

There is the factor of whether future consumer developments will ensure an ongoing favourable demand situation for meat and the extent to which lamb is included in this:

- China is the largest consumer market in the world, with a population of over 1.4 billion so it only needs a small proportion of consumers to purchase lamb to make it potentially a large market in the coming years:
  - At present, per capita sheep meat consumption is less than 2kg
  - The income elasticity of sheep meat is high (a figure of almost one in 2010)
- Population growth is forecast by FAO at 0.4 % per annum in the period 2013 to 2023:
  - With the growth in the urban population forecast at 2.1% per annum:
    - And the urban population will account for 66% of the total, compared with 54% in 2013 with annual growth of 15-20 million inhabitants per annum
- Overall consumer demand should be helped by increasing incomes and small family size, which, in turn, can boost demand for meat:
  - In the period to 2020, Euromonitor is forecasting an increase in real disposable incomes of 6.8% per annum
  - Incomes in urban areas are increasing by over three times more than those in rural areas
  - That the Chinese economy is switching away from the more export orientated companies to domestic consumption, especially in Southern China where incomes levels are well above average
- The growing middle/upper class require more sophisticated food products:
  - In the case of the middle class, official Government estimates indicate that there are at least 125 million consumers (with an annual household income of at least RMB65,000), although other estimates indicate the figure to be well in excess of this
  - With younger consumers in particular prepared to try food of foreign cultures
• That major investment is taking place in the cold chain, which has improved considerably in recent years, including for imported food arriving through the major ports:
  • But that further progress is necessary, including improving skills in its handling
  • Whether usage of air freighting, which increases the landed cost for imported meat, can be reduced.

There is the issue as to whether future demand developments for lamb can be facilitated by taking advantage of further growth in the modern retail sector and upmarket hotels and restaurants (HR) given:
• Expected further major investments in modern retailing, both by local companies and international retailers
• There will be a further rapid growth in the HR sector:
  • Which is expected to grow by around 10% per annum through to 2020, implying the market will double in size every eight years
  • And that by 2020, China could well have become the most popular global destination for international tourists, according to the World Tourist Organisation, with annual visitors amounting to 130 million
  • And so whether the strong growth in the upmarket HR sector can be used as a focal part of the strategy of penetrating new markets for lamb:
    – And where diners can be less price sensitive.

There is the extent to which long-term demand growth in China will be even more of a key driver of global market developments for sheep meat:
• And the impact on global lamb prices. If the Chinese market is prepared to pay more for imported lamb, in the long term this could impact positively on global supply:
  • For New Zealand, in particular, it could divert even more product from the EU market so benefitting EU producers supplying markets within the EU
• The extent to which there is a switch from cheaper cuts to premium cuts in the long term or whether imports will continue to be dominated by the former plus offals
  • But whether lamb could be pushed into an even more niche product category and choke off demand from most consumers:
    • If, for example, Government policy pushed for self sufficiency in lamb and reduced import requirements, continuing to rely instead on pig and poultry meat as its staple meat protein:
      – And even reducing its support to the domestic sheep industry
• Whether major supplying countries become concerned about their high dependence on the Chinese market and re-diversify:
  • Both the Australian and New Zealand sheep meat industry have become more concerned about this
  • China is very astute and if global sheep meat prices become too high, would it switch to investing in alternative low cost suppliers?
    – The lessons of the Australian iron ore and coal industry could be salient, as when Australian companies pressed for higher contract prices, the Chinese started investing in other countries (eg Africa), leaving the Australian companies in limbo
    – On the other hand, unlike with iron ore and coal, alternative significant suppliers of sheep meat do not exist at present.

3 CRITICAL FACTORS AFFECTING LONG TERM DEVELOPMENTS

3.3 EUROPEAN UNION

3.3.1 FUTURE DEMAND DEVELOPMENTS
The outlook for the EU sheep meat market will depend upon a number of critical factors, few of which look positive:
• There is little prospect of demand for lamb picking up significantly in the shorter term:
  • And while it is generally growing on northern markets, with the exception of France, it will not be sufficient to offset the decline in the Mediterranean region
  • There is no indication of a significant recovery in the EU economy, with the main exception of the United Kingdom
• Thereafter, long term economic growth could well remain sluggish:
  • With the European Commission long term projections indicating annual increases in GDP of less than 2%
  • And especially in the key French market where politicians have yet to get to grips with re-structuring the economy (eg given high Government indebtedness, inflexible labour laws, record unemployment) making crisis hit France ‘sick’
• That pig and poultry meat will become even more price competitive, helped by further productivity increases:
  • With lamb remaining the highest in price of all the meats, pushing it even further into the ‘niche’ category, which, in turn, would further reduce the shelf space devoted to the meat
• Only marginal growth in the market coming from future population growth (0.2% per annum)
• Such factors, in turn, will continue to impact on sheep meat demand from importing member states and the prices that exporters can obtain.
3.3.2 FUTURE SUPPLY SITUATION
Producer decision making will have a key impact on the future EU supply situation for sheep meat:

- That the overall impact of the latest CAP reforms will be cutbacks in support:
  - Although in some Member States, producers are now benefitting from re-coupling of the ewe premium
- Given the low profitability of sheep production, relative to alternative agricultural enterprises:
  - With both dairying and beef being critical alternatives
  - With the exception of the UK, which means that it will further increase its share of EU output
- Extent of scope of producers in improving productivity:
  - But which is somewhat limited, especially in the more difficult sheep producing regions
- That with the aging profile of sheep producers and shortages of shepherds, some further cutbacks in output are inevitable.

The availability of sheep meat on the global market will also be a critical factor influencing the supply/demand balance in the EU:

- If EU economic growth remains subdued then New Zealand, in particular, could well continue to diversify at a time when its lamb export availability in total could well remain tight.
- And especially what will be the future demand from China, which at present is taking product away from the EU market and whether this could change.

3 CRITICAL FACTORS AFFECTING LONG TERM DEVELOPMENTS

3.4 MIDDLE EAST/NORTH AFRICA AND UNITED STATES

For the MENA region, key issues include:

- Whether oil prices continue to be depressed or show a marked recovery, contributing to renewed economic growth in the region
- Extent to which domestic production increases can meet demand growth (impact of income growth, population increase and consumer preferences) but with the former likely to increase more slowly than the latter:
  - Implying that import demand would likely further increase.

For the United States market:

- Whether import demand in total will increase or whether it will be largely confined to a further switch to chilled lamb cuts
- And whether domestic consumers can be persuaded to increase their purchases and so contributing to a revival in the US sheep industry:
  - Including more widespread adoption of ethnic dishes based on lamb.
3 CRITICAL FACTORS AFFECTING LONG TERM DEVELOPMENTS

3.5 GLOBAL EXPORTERS

There is the extent of the presence of New Zealand on the global market, which, in turn, will partly depend upon the supply situation:

- And whether the sheep industry experiences a further downturn in supply
- The outlook for the global dairy market and so whether there is a further switch to milk production (the main competitor to sheep, especially on the South Island) and dairy support activities (such as dairy heifer rearing)
- The impact of GHG emissions and associated legislation in the livestock sector and whether it will put an additional brake on sheep numbers
- Extent to which pasture costs increase and even availability of pastures themselves:
  - With competition from dairying and forestry
- Scope for further productivity increases, with both higher lambing rates and carcase weights
- Impact of climate change, as the sheep sector has suffered from drought conditions on several occasions in recent years
- The price outlook for lamb.

And how demand for New Zealand lamb will develop in the long term:

- How it pans out in its critical markets of China and the EU:
  - And the future market mix between cheaper and high value lamb cuts, especially in China
- The extent to which there is a change in import demand in its smaller markets such as the United States, MENA and South East Asia
- Impact of demand changes and even exchange rate movements on the domestic price of lambs.

For Australia, the critical factors influencing the future supply of sheep meat are somewhat different:

- Extent of climate change and severity and periodicity of future droughts, which are already a more regular and severe occurrence than in New Zealand
- The future market for beef, which at present is also very positive:
  - Although for sheep production, competition from other agricultural enterprises is less intense than in New Zealand
- Extent to which sheep producers continue to switch to meat breeds and further improve genetics and productivity.

There is the demand for Australian sheep meat, especially lamb, and how it will change in the long term:

- The outlook for trade with China and whether its own FTA will help restore its competitive position with New Zealand product
- Development of market opportunities in other markets, notably MENA:
  - And especially for lamb, which also needs to take account of the competition between Australian live and meat exports, given that the former has taken a hit in recent years but is now increasing again as a result of new welfare rules (ESCAS):
    - As demand for live sheep in the Middle East is still very strong, especially at Muslim festivals (such as Hajj)
- Whether Australia can gain increased market access to the EU, which is one of its premium markets for lamb.

Whether there is any possibility that if global export prices increase sharply in the long term, other exporters emerge as significant suppliers to the global market:

- Such as India and Pakistan or even the Horn of Africa and East Africa, helped by considerable new investment, both internal and foreign, in sheep production and processing:
  - Suppyling the Middle East and even China
- But this will require both considerable investment and technical support:
  - In production and processing, linked with the need for good infrastructure (eg cold chain, general transport)
  - The critical area of animal health support (disease control and monitoring, plant inspection, meeting requirements including documentation of importing countries).
There are a number of very different critical issues for the UK sheep sector:

- The extent to which there are further pressures on profitability of sheep production:
  - Given the cutbacks in CAP support from 2015 and that most UK producers will remain heavily dependent upon support payments, now known as the Basic Payment
  - If there is a less positive price outlook than for Australia and New Zealand
  - And so, whether future price developments for lamb are sufficient to offset cuts in CAP support

- Extent to which producers are able to put even more focus on their cost structure and productivity increases in order to stay in business

- The outlook for the sterling/euro exchange rate relationship:
  - The stronger growth in the UK economy and problems in the euro zone have already resulted in a sharp strengthening against the euro since the middle of 2013 and this adversely impacts on export prices:
    - As it makes it difficult to pass on price increases, especially if it is accompanied by weak demand (eg in France)
  - Whether there has to be ongoing high dependence upon the continental EU market, where the demand outlook at present looks only slightly positive and confined mainly to northern member states (outside of France):
    - And that market opportunities outside the EU are more for lower valued cuts and that it may remain difficult to penetrate markets for premium lamb
    - Whether there is easing in the pressure from New Zealand lamb, especially chilled, on both the UK domestic market and UK export markets within the EU.

The competitive position of UK exporters looks likely to be a particularly critical issue:

- Not only in relation to its trade within the EU but if it is to export to the global market then price competitiveness with Australia and New Zealand will become even more important

- Long term historical developments would suggest a narrowing of the gap between the average export price of New Zealand lamb and UK sheep meat, although the reality may be different:
  - With the New Zealand price having increased at a faster rate than that of the UK, suggesting that the UK is maybe becoming more competitive
  - The average UK export price has even become lower than that of New Zealand since 2009

- However, this is only because the UK has been slow to switch from exports of carcases (still 55% of trade) to higher value cuts, in comparison with New Zealand (carcases now only 4% of its lamb trade) with its dependence upon primal and retails cuts, including branded ones

- If the UK is to compete on the key global market, China, exporters will have to contend with New Zealand and Australian lamb:
  - For these two competitors, the former will be paying zero tariff from 2016, with the same applying to Australia from early the next decade
  - Whereas UK lamb will be subject to a tariff rate of 15% unless there are changes in the meantime to the Chinese import regime
  - So it would have to undercut the price of product from Oceania, which may be difficult, except possibly for cuts that have little value in the UK (such as neck bones, paddy wack and tripes).

There are a number of unknowns that could impact on long term global developments:

- Major upheavals, political and religious, that could impact on the global economy, with the world already now in uncertain times (in Russia and MENA)

- Any food safety and/or animal health issues that have an impact on the global sheep meat market, either negatively or positively

- Even more marked climate change, including, for example, increased incidence of drought and/or floods. For example, climate change could become even more important issues in Australia and New Zealand:
  - Also, if there are global shortages and sharply increased prices of grain, that could even benefit the extensive nature of sheep production at the expense of intensive livestock

- Environmental issues if Governments in different parts of the world decide the need to be more radical in getting to grips with solving the problems of GHG emissions, including from livestock, desertification/over grazing and industry pollution. China is an example, where several of these issues are relevant.
This section summarises the key critical factors covered in more detail in Chapter 3, which will influence the three scenarios, analysed in the three sections below, and the outlook to 2025.

There are a number of factors that might be considered somewhat common across all three scenarios (Chapter 3.1):

- The Doha Round (with consequent further liberalisation of global trade) will make only slow progress but with somewhat greater progress made with negotiation and implementation of FTAs
- Gradual resumption of more normal global economic growth but not necessarily in all regions of the world, with GDP growth remaining sluggish in the EU and slowing down to a small degree in China.

Those factors that could produce key changes in the demand outlook:

- The outlook for retail sheep meat prices in China and the extent to which they will rise or allowed to rise and affect consumer demand and import demand for sheep meat (Chapter 3.2.1):
  - And/or China cuts back considerably on its import requirements or even switches away from buying Australian and New Zealand product in favour of new suppliers
  - And/or relies on pig and poultry meat and aquaculture to meet the protein requirements of Chinese consumers
- How the global market develops between demand for cheaper cuts relative to premium ones in developing economies in particular, led by China (Chapter 3.2.1)
- The future demand situation for lamb in the EU (Chapter 3.3.1):
  - And extent to which consumers will switch both into and out of lamb
  - And consequent impact on imports from the global market (Chapter 3.3.2)
- How demand changes in other import markets led by the Gulf States of the Middle East (Chapter 3.4)
- How the global beef market moves in the long term and whether there are further substantial price rises in response to a supply/demand imbalance (Chapter 3.1)

Those key factors that could produce key changes in the supply outlook for sheep meat, both in overall terms and on individual markets include:

- Future developments in the global dairy market and especially their impact on the New Zealand sheep industry (Chapter 3.5)
- Climatic factors (climate change, drought incidence), especially as it affects production in the key exporting countries of Australia and New Zealand (Chapter 3.5)
- Chinese policy, in relation to future supply and how its production will develop (Chapter 3.2.2):
  - Extent to which Government continues to support the domestic sheep industry
  - And impact of FTAs on imports
- Whether New Zealand and Australia take the strategic decision to reduce their dependence upon the Chinese market or allow it to dominate their trade even further (Chapter 3.2.1)
- Impact of CAP reforms on EU sheep meat production and self sufficiency (Chapter 3.3.2)
- Whether smaller exporters emerge as significant suppliers to the global market, especially if global prices firm up sharply (Chapter 3.5)
- Exchange rate developments (Chapter 3.1).

Those factors that could produce key changes in the United Kingdom (Chapter 3.6):

- CAP reform and price outlook and impact on production
- Whether export prospects will be influenced by:
  - The sterling/euro exchange rate
  - How demand for lamb in France and developments on other EU markets pan out
  - Competitiveness of UK lamb on the global market for both premium and lower value cuts:
    - Including its ability to compete on the Chinese market
  - On the EU market, the extent of pressure from NZ lamb (especially chilled) and Irish lamb.
The forecasts/projections in the tables below, based on the assumptions under three different scenarios, are not the result of an econometric model or study. They are only intended to give a guide as to the possible future change for key countries and regions taking account of:

- Historical developments, based on annual changes in the period 2003 to 2014 and as a starting point projecting similar growth rates in the period 2014 to 2025
- Where available, long term projections/forecasts that are covered in Chapter 2 have also been consulted
- A qualitative judgment where historical developments are no longer considered appropriate:
  - And, for example, where future developments in global exports do not match changes in import requirements
  - And such forecasts/projections should be considered more a starting point in the debate about the future of the global sheep meat industry:
  - With the objectives of this report being more the factors that might drive it under three different scenarios, rather than the forecasts/projections themselves.

It is considered key to include various scenarios, as the outlook over the next 10 years could change considerably depending upon future demand and supply developments, especially the former. The most critical at present is how future import demand in China will pan out.

### 4 DEVELOPMENT OF SCENARIOS

#### 4.2 SCENARIO 1: MOST LIKELY

This assumes an ongoing firm market, with increased prices and demand, further modest trade liberalisation and limited production rise (Fig 4.1, Table 4.1 and Table 4.2). It is based on the current situation (as at early 2015) and also corresponds to much of the analysis in this report (both historical and future market developments), with the key assumptions being:

- Ongoing tight supplies and only limited scope for increased sheep meat exports from major suppliers:
  - With the global supply/demand balance remaining tight
- Further steady global demand growth, although with some slowdown compared with recent levels. This will be led by China:
  - As middle/higher income consumers continue to develop their taste in sheep meat, especially lamb
- Only limited demand increases in the European Union, as economic recovery only resumes at a slow pace contrasting with ongoing demand increases in MENA:
  - With a further small rise in EU self sufficiency as global exporters continue to develop more attractive alternative markets
  - Limited further liberalisation in global sheep meat trade with ongoing delays to implementation of the WTO Doha Round, although with some further progress with FTAs.

On the supply situation, especially in relation to exporters, it is assumed that:

- The New Zealand sheep industry, and hence export availability, will continue to be constrained by further growth in the dairy sector:
  - Increased production costs and further loss of profitability relative to milk production:
    - Even if the lamb price outlook stays positive
    - Although further productivity rises with both increasing lambing rates and carcase weights but at a slower rate than in the past:
      - As there is now more limited scope for further increases, as New Zealand has now caught up, for example, with productivity in the UK
  - For Australia there is scope for a further switch from wool to meat production, which, in turn, will boost export availability of lamb, assuming a return to average seasonal conditions:
    - With returns to sheep producers to remain favourable
  - Both Australia and New Zealand exports showing further market diversification
  - Stable or more probably, further declines in supply (both domestic and imported) in the EU:
    - In the UK further cutbacks in CAP support from 2015 will continue to put pressure on profitability of sheep production, with the price outlook less positive than for Australia and New Zealand:
      - Only small growth in UK exports and little change or marginal declines in Ireland
    - Further declines in production in other EU countries, not helped by the CAP reforms and the low profitability of sheep production compared with other agricultural enterprises
  - Exchange rate movements for major exporting countries not sufficient to disrupt trade flows.

![Fig 4.1 Global market developments for sheep meat](source: study analysis)
To summarise, under this scenario to 2025, it is assumed that:

- Production growth will be led by China and eventually Australia (once it has recovered from the current drought):
  - But partly offset by long term production declines in New Zealand and the EU
- Consumption growth will be centred on China and to a lesser extent MENA:
  - And these countries will be the main drivers of the increase in global trade

- Annual global production and consumption growth will average just over 1% per annum, a slightly higher rate than historical developments (based on the period 2003 to 2014)
- And of the major global exporters, only Australia has the capacity to substantially expand its trade in the long term to meet the increase in import demand:
  - With global trade growth forecast at just under 2% per annum and also largely in line with historical developments.

### Table 4.1 Scenario 1 ‘Most likely’: Steady demand, price increases, continuation of past developments

<table>
<thead>
<tr>
<th>000 Tonnes</th>
<th>2003</th>
<th>2013</th>
<th>2014*</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production (CWE)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia: lamb</td>
<td>330</td>
<td>470</td>
<td>490</td>
<td>526</td>
<td>640</td>
</tr>
<tr>
<td>Australia: mutton</td>
<td>214</td>
<td>217</td>
<td>240</td>
<td>191</td>
<td>186</td>
</tr>
<tr>
<td>New Zealand: lamb</td>
<td>420</td>
<td>376</td>
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<td>340</td>
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<td>China</td>
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<td>2,081</td>
<td>2,095</td>
<td>2,268</td>
<td>2,504</td>
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<td>874</td>
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<td>1,480</td>
<td>1,495</td>
<td>1,540</td>
<td>1,579</td>
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<tr>
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<td>73</td>
<td>73</td>
<td>67</td>
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<tr>
<td><strong>Consumption (CWE)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>China</td>
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<td>2,401</td>
<td>2,597</td>
<td>2,896</td>
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<td>1,010</td>
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<td>1,694</td>
<td>1,731</td>
<td>1,806</td>
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<td>166</td>
<td>147</td>
<td>157</td>
<td>149</td>
<td>143</td>
</tr>
<tr>
<td><strong>Exports (prod wt)</strong></td>
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<td></td>
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<td></td>
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<tr>
<td>Australia: lamb</td>
<td>105</td>
<td>214</td>
<td>237</td>
<td>282</td>
<td>387</td>
</tr>
<tr>
<td>Australia: mutton</td>
<td>117</td>
<td>172</td>
<td>186</td>
<td>154</td>
<td>150</td>
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<td>New Zealand: lamb</td>
<td>296</td>
<td>313</td>
<td>307</td>
<td>281</td>
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<tr>
<td><strong>Imports (prod wt)</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
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<td>European Union</td>
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<td>128</td>
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<td>MENA</td>
<td>117</td>
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<td>191</td>
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<td>United States</td>
<td>69</td>
<td>69</td>
<td>78</td>
<td>75</td>
<td>74</td>
</tr>
<tr>
<td><strong>Global situation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production/consumption (cwe)</td>
<td>7,789</td>
<td>8,589</td>
<td>8,700</td>
<td>9,135</td>
<td>9,745</td>
</tr>
<tr>
<td>Trade (prod. wt.)</td>
<td>854</td>
<td>1,161</td>
<td>1,205</td>
<td>1,252</td>
<td>1,397</td>
</tr>
<tr>
<td>Real export lamb price (US$ per tonne)</td>
<td>5,458</td>
<td>5,291</td>
<td>5,602</td>
<td>6,098</td>
<td>6,186</td>
</tr>
</tbody>
</table>

* Provisional/estimate

NB For New Zealand year ended September
### Table 4.2 Scenario 1 'Most likely': Assumptions

#### Sheep Meat

<table>
<thead>
<tr>
<th></th>
<th>2003-2014</th>
<th>2014-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global production/consumption</td>
<td>0.7%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Global trade</td>
<td>2.0%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Global sheep meat trade real price</td>
<td>0.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Global beef trade real price</td>
<td>1.7%</td>
<td>Similar rise to historical</td>
</tr>
</tbody>
</table>

**2014**  
EU/global sheep price ratio | 1.68       | 1.58       |

(Source: European Commission)

- **Lamb/dairy price ratio**: Further movement towards dairy price
- **Demand response**: Highest in China, MENA  
  Lowest in EU
- **Supply response**: Highest (for lamb) in Australia  
  New Zealand constrained by further milk price rises  
  EU profitability remaining under pressure, CAP reform  
  Resource constraints in MENA
- **Trade response**: Increased Australian lamb exports  
  Further decline NZ lamb exports  
  Import demand growth: China, MENA  
  Import reduction in EU (better prospects elsewhere)
- **Trade policy**: Further liberalisation (mainly FTAs) to boost trade

#### General

<table>
<thead>
<tr>
<th></th>
<th>2011-13</th>
<th>LONG TERM PROJECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population annual growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>0.6%</td>
<td>0.5-0.2% Slowing down</td>
</tr>
<tr>
<td>MENA</td>
<td>1.8%</td>
<td>1.6-1.2% Slowing down</td>
</tr>
<tr>
<td>United States</td>
<td>0.8%</td>
<td>0.8-0.7% Slowing down</td>
</tr>
<tr>
<td>EU</td>
<td>0.2%</td>
<td>0.2-0.1% Slowing down</td>
</tr>
<tr>
<td>World</td>
<td>1.2%</td>
<td>1.1-0.9% Slowing down</td>
</tr>
</tbody>
</table>

(Source: FAO, OECD)

<table>
<thead>
<tr>
<th></th>
<th>2011-13</th>
<th>LONG TERM PROJECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP annual growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>8.2%</td>
<td>8-6% Slowing down</td>
</tr>
<tr>
<td>MENA</td>
<td>3.9%</td>
<td>4.5%</td>
</tr>
<tr>
<td>United States</td>
<td>2.1%</td>
<td>2.5-2.0% Slowing down</td>
</tr>
<tr>
<td>EU</td>
<td>0.4%</td>
<td>1.7%</td>
</tr>
<tr>
<td>World</td>
<td>3.6%</td>
<td>4%</td>
</tr>
</tbody>
</table>

(Source: IMF, OECD)
This is one of sustained strong positive price and demand developments, plus a sustained move towards more free trade, with supply unable to keep pace (Table 4.3 and Table 4.4). The market is assumed to be very much demand driven with:

• Import demand growth continuing to increase considerably in China, plus significant growth in other regions such as the MENA and South East Asia, and so all these markets will take an ever increasing proportion of global trade:
  • And economic recovery gathers momentum in the European Union, with an upturn in demand for lamb but with self sufficiency rising as global exporters increasingly target non-EU markets

• Supply/demand balance tightens considerably with resultant marked increase in lamb prices:
  • And in the long term, even results in an upturn in global supply, including in emerging countries (although the impact of these on global trade will remain limited)

• Demand differences will see a further switch by Australia and New Zealand from supplying markets of developed economics to supplying Asian markets, led by China

• Further liberalisation in the global sheep meat trade, with implementation of the WTO Doha Round by early in the next decade, although still with a transition period, and further steady progress in FTAs including new ones

• Demand for sheep meat boosted by further strong rises in global beef prices, as beef supply growth is inadequate to meet demand increases, not helped by the longer production cycle compared with sheep.

On the supply situation and especially for exporters, after a number of shorter term constraints, production starts to build up again:

• As supply growth will be unable to keep pace with demand increases this will result in strong price signals to producers

• The New Zealand sheep industry experiences at best a stability in supply in the shorter term:
  • Especially if the current dry conditions worsen and there is a further switch to milk production
  • But then moves up in the long term in response to the firm market but only slowly:
    – But still enough to largely prevent a further switch to milk

• Australian production in the shorter term is constrained by recovery from the recent drought and ongoing strong market for beef:
  • But then significant lamb production growth is assumed to resume, and at a faster rate than in New Zealand

• At the global level, the supply situation is still assumed to remain tight:
  • Because of good profitability of alternative agricultural enterprises led by dairying, beef and even cereals
  • Limited supply response to price rises in most parts of the world, mainly because of resource constraints:
    – With few alternative export suppliers where there might be a strong response

• In China, production rises continue to be modest and unable to meet the demand growth

• In the EU, CAP reforms reduce incomes to sheep producers and in the medium term (up to 5 years) production declines significantly:
  • Before the rate of decline starts to slow down in response to sharp price rises
  • With growth in exports from the United Kingdom and Ireland in the long term, both to continental EU and the global markets.

Under this scenario to 2025, the main conclusions are:

• Both global production/consumption and trade will increase at a faster rate than under the ‘Most likely’ scenario and average 2% and over 3% per annum respectively

• Production will increase in most countries in response to the demand increase:
  • With the main exception of New Zealand, where any increase is assumed to be small
    – And even a reduction in the EU
  • With Australia being the main driver of lamb production growth in the long term

• Consumption will increase considerably in China, with a significant rise also occurring in MENA:
  • But with a further decline in the EU because of product shortages

• Import requirements will increase considerably in China and MENA:
  • But exporting countries will find it difficult to meet the increase in global demand
  • And so there will be further cutbacks in shipments to the EU.
Table 4.3 Scenario 2 ‘High’: Sustained strong price, demand, trade liberalisation

<table>
<thead>
<tr>
<th></th>
<th>000 TONNES</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2003</td>
<td>2013</td>
<td>2014*</td>
<td>2020</td>
</tr>
<tr>
<td><strong>PRODUCTION (CWE)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia: lamb</td>
<td>330</td>
<td>470</td>
<td>490</td>
<td>540</td>
<td>689</td>
</tr>
<tr>
<td>Australia: mutton</td>
<td>214</td>
<td>217</td>
<td>240</td>
<td>190</td>
<td>199</td>
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<tr>
<td>New Zealand: lamb</td>
<td>420</td>
<td>376</td>
<td>372</td>
<td>364</td>
<td>389</td>
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<td>China</td>
<td>1,730</td>
<td>2,081</td>
<td>2,095</td>
<td>2,325</td>
<td>2,761</td>
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<td>European Union</td>
<td>1,032</td>
<td>874</td>
<td>864</td>
<td>816</td>
<td>849</td>
</tr>
<tr>
<td>MENA</td>
<td>1,374</td>
<td>1,480</td>
<td>1,495</td>
<td>1,579</td>
<td>1,659</td>
</tr>
<tr>
<td>United States</td>
<td>92</td>
<td>73</td>
<td>73</td>
<td>75</td>
<td>82</td>
</tr>
<tr>
<td><strong>CONSUMPTION (CWE)</strong></td>
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<td></td>
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</tr>
<tr>
<td>Australia: lamb</td>
<td>207</td>
<td>220</td>
<td>208</td>
<td>195</td>
<td>185</td>
</tr>
<tr>
<td>China</td>
<td>1,759</td>
<td>2,360</td>
<td>2,401</td>
<td>2,671</td>
<td>3,204</td>
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<td>934</td>
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<td>MENA</td>
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<td>1,924</td>
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<td>166</td>
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<td>176</td>
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<td><strong>EXPORTS (PROD WT)</strong></td>
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<td></td>
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<tr>
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<td>105</td>
<td>214</td>
<td>237</td>
<td>294</td>
<td>430</td>
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<tr>
<td>Australia: mutton</td>
<td>117</td>
<td>172</td>
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</tr>
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<td>335</td>
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<td><strong>IMPORTS (PROD WT)</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>MENA</td>
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<td>198</td>
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<td>United States</td>
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<td>69</td>
<td>78</td>
<td>82</td>
<td>86</td>
</tr>
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</table>

* Provisional/estimate

NB For New Zealand year ended September
### Table 4.4 Scenario 2 ‘High’: Assumptions

#### SHEEP MEAT

<table>
<thead>
<tr>
<th></th>
<th><strong>ANNUAL CHANGE</strong></th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>2003-2014</strong></td>
<td><strong>2014-2025</strong></td>
</tr>
<tr>
<td>Global production/consumption</td>
<td>0.7%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Global trade</td>
<td>2.0%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Global sheep meat trade real price</td>
<td>0.3%</td>
<td>Strong rise</td>
</tr>
<tr>
<td>Global beef trade real price</td>
<td>1.7%</td>
<td></td>
</tr>
<tr>
<td>Lamb/dairy price ratio</td>
<td>Little further change</td>
<td></td>
</tr>
</tbody>
</table>

**Demand response**
- Strongest demand growth in China
- Strong demand growth in MENA
- Small increase in EU but supply shortages

**Supply response**
- Strong growth (for lamb) in Australia
- Limited upturn in New Zealand but still competition from dairy
- Eventual small upturn in EU
- Modest production rise in MENA

**Trade response**
- Sharp rise in Australian lamb exports
- Modest recovery in NZ lamb exports
- Strong import demand growth: China, MENA
- Global shortages restricting EU imports

**Trade policy**
- Strong progress made with FTAs
- New WTO agreement

**GENERAL**
- Same as ‘Most likely’ scenario
DEVELOPMENT OF SCENARIOS

4.4 LOW

This is considered the complete opposite of Scenario 2, with no increase in world prices and demand, increased protectionism and problems for major exporting countries (Table 4.5 and Table 4.6). This again mainly centres on demand developments:

- Import demand growth to slow down considerably in China and eventually fall away, for example, if:
  - China tries to switch to alternative suppliers if prices in Oceania are considered too high
  - China pushes for higher self-sufficiency in sheep meat and even meat in general:
    - With increased dependence upon home produced pork, poultry and aquaculture with further investment in these sectors

- And generally increased emphasis on self-sufficiency in meat through much of the Asian region

- Lack of significant economic recovery in the European Union and so lamb demand remains lacklustre, with further falls in consumption, albeit at a slower rate than in the 2008 to 2014 period:
  - With lamb moving even further into a niche product category

- Demand in MENA increasingly met by regional suppliers such as the Horn of Africa

- Australia and New Zealand switching back towards their more traditional and reliable markets and in particular reducing their dependence upon Asian markets.

On the supply situation:

- The eventual imbalance between supply and demand results in significant global price falls

- And so eventually results in a steady reduction in global supply, given falling profitability until a new equilibrium is reached:
  - With producers in New Zealand switching to dairying in a big way and lamb production losing momentum in Australia, not helped by more adverse climatic conditions and good market outlook for beef
  - In the EU, the latest CAP reforms and subdued prices result in falling incomes to sheep producers, also with further labour shortages and poor production structures:
    - Cutbacks take place in production, including in the United Kingdom and Ireland with their exports at best being stable

- Little further liberalisation of global sheep meat trade.

Under this scenario to 2025 for the key countries, it is assumed that:

- Production will decline significantly towards the end of the current decade and into the next:
  - With production in Australia in long term small decline, although with some recovery in the medium term as the industry recovers from drought
  - For the exporting countries, production has to adjust to declining major import markets

- Consumption will decline in all major markets in the next 10 years, with the exception of China

- And so major markets will be cutting back on their import requirements:
  - But with a more modest reduction in imports into the EU as New Zealand switches back to supplying its more traditional markets

- And there will be little growth in global annual production/consumption, while global trade will ease back.
### Table 4.5 Scenario 3 ‘Low’: No demand nor price increase, trade protectionism

<table>
<thead>
<tr>
<th>000 TONNES</th>
<th>2003</th>
<th>2013</th>
<th>2014*</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTION (CWE)</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Australia: lamb</td>
<td>330</td>
<td>470</td>
<td>490</td>
<td>475</td>
<td>452</td>
</tr>
<tr>
<td>Australia: mutton</td>
<td>214</td>
<td>217</td>
<td>240</td>
<td>201</td>
<td>182</td>
</tr>
<tr>
<td>New Zealand: lamb</td>
<td>420</td>
<td>376</td>
<td>372</td>
<td>318</td>
<td>280</td>
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<tr>
<td>China</td>
<td>1,730</td>
<td>2,081</td>
<td>2,095</td>
<td>2,169</td>
<td>2,224</td>
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<td>European Union</td>
<td>1,032</td>
<td>874</td>
<td>864</td>
<td>776</td>
<td>701</td>
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<tr>
<td>MENA</td>
<td>1,374</td>
<td>1,480</td>
<td>1,495</td>
<td>1,498</td>
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<tr>
<td>United States</td>
<td>92</td>
<td>73</td>
<td>73</td>
<td>63</td>
<td>53</td>
</tr>
<tr>
<td><strong>CONSUMPTION (CWE)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia: lamb</td>
<td>207</td>
<td>220</td>
<td>208</td>
<td>201</td>
<td>201</td>
</tr>
<tr>
<td>China</td>
<td>1,759</td>
<td>2,360</td>
<td>2,401</td>
<td>2,429</td>
<td>2,447</td>
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<tr>
<td>European Union</td>
<td>1,277</td>
<td>1,026</td>
<td>1,010</td>
<td>904</td>
<td>817</td>
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<tr>
<td>MENA</td>
<td>1,491</td>
<td>1,662</td>
<td>1,694</td>
<td>1,667</td>
<td>1,651</td>
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<tr>
<td>United States</td>
<td>166</td>
<td>147</td>
<td>157</td>
<td>140</td>
<td>125</td>
</tr>
<tr>
<td><strong>EXPORTS (PROD WT)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia: lamb</td>
<td>105</td>
<td>214</td>
<td>237</td>
<td>234</td>
<td>214</td>
</tr>
<tr>
<td>Australia: mutton</td>
<td>117</td>
<td>172</td>
<td>186</td>
<td>163</td>
<td>146</td>
</tr>
<tr>
<td>New Zealand: lamb</td>
<td>296</td>
<td>313</td>
<td>307</td>
<td>259</td>
<td>225</td>
</tr>
<tr>
<td><strong>IMPORTS (PROD WT)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>38</td>
<td>272</td>
<td>300</td>
<td>255</td>
<td>219</td>
</tr>
<tr>
<td>European Union</td>
<td>218</td>
<td>164</td>
<td>156</td>
<td>137</td>
<td>124</td>
</tr>
<tr>
<td>MENA</td>
<td>117</td>
<td>182</td>
<td>199</td>
<td>169</td>
<td>153</td>
</tr>
<tr>
<td>United States</td>
<td>69</td>
<td>69</td>
<td>78</td>
<td>71</td>
<td>66</td>
</tr>
</tbody>
</table>

* Provisional/estimate

NB For New Zealand year ended September.
### Table 4.6 Scenario 3 'Low': Assumptions

<table>
<thead>
<tr>
<th>SHEEP MEAT</th>
<th>ANNUAL CHANGE</th>
<th>2003-2014</th>
<th>2014-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global production/consumption</td>
<td>0.7%</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>Global trade</td>
<td>2.0%</td>
<td>-0.4%</td>
<td></td>
</tr>
<tr>
<td>Global sheep meat trade real price</td>
<td>0.3%</td>
<td>Falling</td>
<td></td>
</tr>
<tr>
<td>Global beef trade real price</td>
<td>1.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lamb/dairy price ratio</td>
<td>In favour of dairy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand response</td>
<td>China favours pig and poultry meat</td>
<td>Little further increase in MENA demand</td>
<td></td>
</tr>
<tr>
<td>Supply response</td>
<td>Small decline in Australian lamb output, also reduced mutton</td>
<td>Declining New Zealand lamb output, strong growth in dairy</td>
<td>EU profitability under major pressure</td>
</tr>
<tr>
<td>Trade response</td>
<td>Lower Australian lamb exports</td>
<td>Further decline in NZ lamb exports</td>
<td>Eventual import demand reduction in China</td>
</tr>
<tr>
<td>Trade policy</td>
<td>Very limited further liberalisation</td>
<td>Protectionism in China</td>
<td></td>
</tr>
<tr>
<td>GENERAL</td>
<td>Same as ‘Most likely’ scenario</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More specifically for the UK and especially under Scenario 1: ‘Most likely’, the outlook is:

- No significant increase in production, at least in the medium term, given the further fall in CAP support, as this will not be fully offset by higher prices (as large price increases are not achievable) leaving profitability under pressure
- Ongoing high export dependence upon the continental EU market:
  - It will remain the key market for premium cuts, even if shelf space allocated to lamb continues to decline
  - While market opportunities outside the EU for lower valued cuts will continue to develop, it will remain a challenge to penetrate markets for premium lamb to any significant degree
- Higher economic growth in the UK, relative to the continent, contributes to the ongoing firm sterling, a critical factor in determining UK competitiveness on export markets
- Further easing in the pressure from New Zealand lamb on both the UK’s domestic and export markets within the EU, although New Zealand will continue to prioritise chilled lamb:
  - While availability of Irish lamb could also decline in the long term if the dairy sector there continues to expand and given the poor structure of sheep production which reduces profitability
  - With the UK further consolidating its position as the largest exporter within the EU
  - The slow progress made by the EU in negotiating FTAs puts UK exporters at a competitive disadvantage
  - And there remains some uncertainty about long term import demand prospects in China.

However, under the ‘High’ scenario the outlook could well be more positive:

- The UK is the third largest global exporter and so, with the exception of New Zealand and Australia, competition is limited:
  - Also, the seasonality of lamb production is the opposite of the Southern Hemisphere
- This scenario is assumed to result in global supply shortages and so the UK should be in a position to take advantage of this:
  - And, for example, have a significant share of the Chinese market, especially for lower valued cuts and sheep offals but also start to penetrate markets for premium lamb through the up-market modern retail and hotel and restaurant sectors.
CONCLUSIONS

5.1 GLOBAL MARKET

International policy will inevitably impact on trade flows:

• But given the lack of progress of the WTO Doha round then this seems more likely to come about from bilateral agreements:
  • Some of which have already had an impact on sheep meat trade flows (such as the FTA between China and New Zealand)
  • While others are being negotiated and/or starting to be implemented (FTA between China and Australia)

• Even if product is competitive on a particular market, non-tariff barriers can still prevent trade:
  • Often, these can be used to protect the domestic industry and, even if such disputes are taken to the WTO, it can take a considerable time before resolution
  • Even China adopting a more protectionist policy cannot be totally ruled out.

Future global supply and export availability in response to the demand increase will be limited:

• With trade continuing to be dominated by New Zealand and Australia:
  • Yet for the largest lamb exporter, New Zealand, the sheep sector faces ongoing competition from other agricultural activities, led by dairying
  • Leaving Australia to emerge as the largest lamb exporter by the next decade, given ongoing scope for switching into lamb production (utilisation of more meat breeds) with further increases in productivity

• Plus a few EU exporters (UK and Ireland) mainly supplying other EU member states:
  • But given CAP reforms in particular, low profitability will restrict the volume

• And there is little indication that major alternative exporters will emerge, even in the long term under the ‘High’ scenario

• But, if China does push for greater self sufficiency in sheep meat, this would cause major problems for exporting countries whose output would inevitably have to decline

• Under the ‘Most likely’ and ‘High’ scenarios, the main beneficiary would be Australia, although its own output will continue to be influenced by climatic conditions, especially incidence of drought

• And the supply response of exporting countries will inevitably mainly depend upon prospects on the Chinese market and to a lesser extent MENA and South East Asia

• With developed economies, led by the EU plus the Gulf States, remaining the main markets for premium lamb cuts.

Yet under the three different scenarios analysed, there are inevitably a range of possible outcomes depending upon how global demand in particular develops through to 2025, with the Chinese situation considered the most critical factor (Fig 5.1).

Future global demand developments will focus on a few key markets:

• Demand in China will be even more of a key driver of global market developments and the impact on global lamb prices. If the Chinese market is prepared to pay more for imported lamb such developments could result in increased global supply, although this is by no means certain:
  • For New Zealand, in particular, it could divert even more product from the EU market, both the UK and on the continent, so benefitting EU producers and especially those (United Kingdom and Ireland) supplying markets within the EU
  • But for the moment though, the main advantage of China is that it opens up market opportunities for cheaper cuts (that have limited alternative markets) rather than premium cuts

• In contrast, in the EU, there is a situation where demand for sheep meat is in difficulty, with both available supply and demand in decline:
  • The question might well be if lamb experiences further retail price increases it is pushed even more into a niche product category, mainly focussed on festive occasions in most markets
  • But as the supply/demand situation for beef is also expected to be tight, sheep meat may not lose market share to it

• Further growth will take place in MENA, especially the Gulf States, given consumer preferences but with oil price developments also continuing to influence demand

• The United States will remain an important market for prime lamb and there could be scope for a further rise in imports.

![Fig 5.1 Global market developments to 2025 under three scenarios](source: Study Analysis)
5 CONCLUSIONS

5.2 UNITED KINGDOM

Prospects for UK exports are inevitably linked to developments in the EU as a whole:

- It is already clear from Chapter 1.1.3 that the EU has moved very slowly in negotiating FTAs than, for example, Australia and New Zealand, whose sheep meat exporters are already benefitting from these:
  - And FTAs can be seen as very much a long term development for EU exporters, given the time taken to obtain an agreement and then allowing for a transition period
  - But the UK still needs to support FTA negotiations being undertaken by the EU such as with the United States (TTIP), Canada (CETA) and South East Asia (ASEAN):
    - All these countries/regions are significant importers of sheep meat.

UK export competitiveness will remain a key issue in the future:

- Not only in relation to its trade within the EU but if it is to export larger quantities to the global market then it becomes even more important

- And if the UK does obtain market access to the key global market, China, exporters will have to compete with New Zealand and Australia:
  - For these two competitors, the former will be paying zero tariff from 2016 with the same applying to Australia by the middle of the next decade
  - Whereas, UK lamb will be subject to a tariff rate of 15%, unless there are changes to the Chinese import regime in the meantime
  - Ireland has already reached agreement to supply the Chinese market with plant inspection, expected this year

- How will UK exporters cope with any major exchange rate changes, which, in turn, will impact on competitiveness and availability of domestic product:
  - A weaker sterling and strong export market inevitably impacts on product availability, as exports are seen as a major contributory factor to the health of the UK sheep meat sector
  - The extent to which they are able to move out of commodity trading and further develop exports of cuts and branded products demand for which can be less sensitive to exchange rate movements.

Taking account of global developments and the competitiveness of the UK:

- The main focus will continue to have to be maximising opportunities on the EU market, including ‘new’ ones that do not having a tradition of consuming sheep meat (eg some Northern and Eastern European markets)
  - And use the global market more for low valued cuts and offals
  - Although still seeking out markets, such as China, MENA and the United States, for premium cuts:
    - Even if at present, opportunities are small or limited and competition from Australia and New Zealand high
  - At least such a strategy contributes to improved carcase valorisation.
APPENDIX: MAIN REFERENCES


