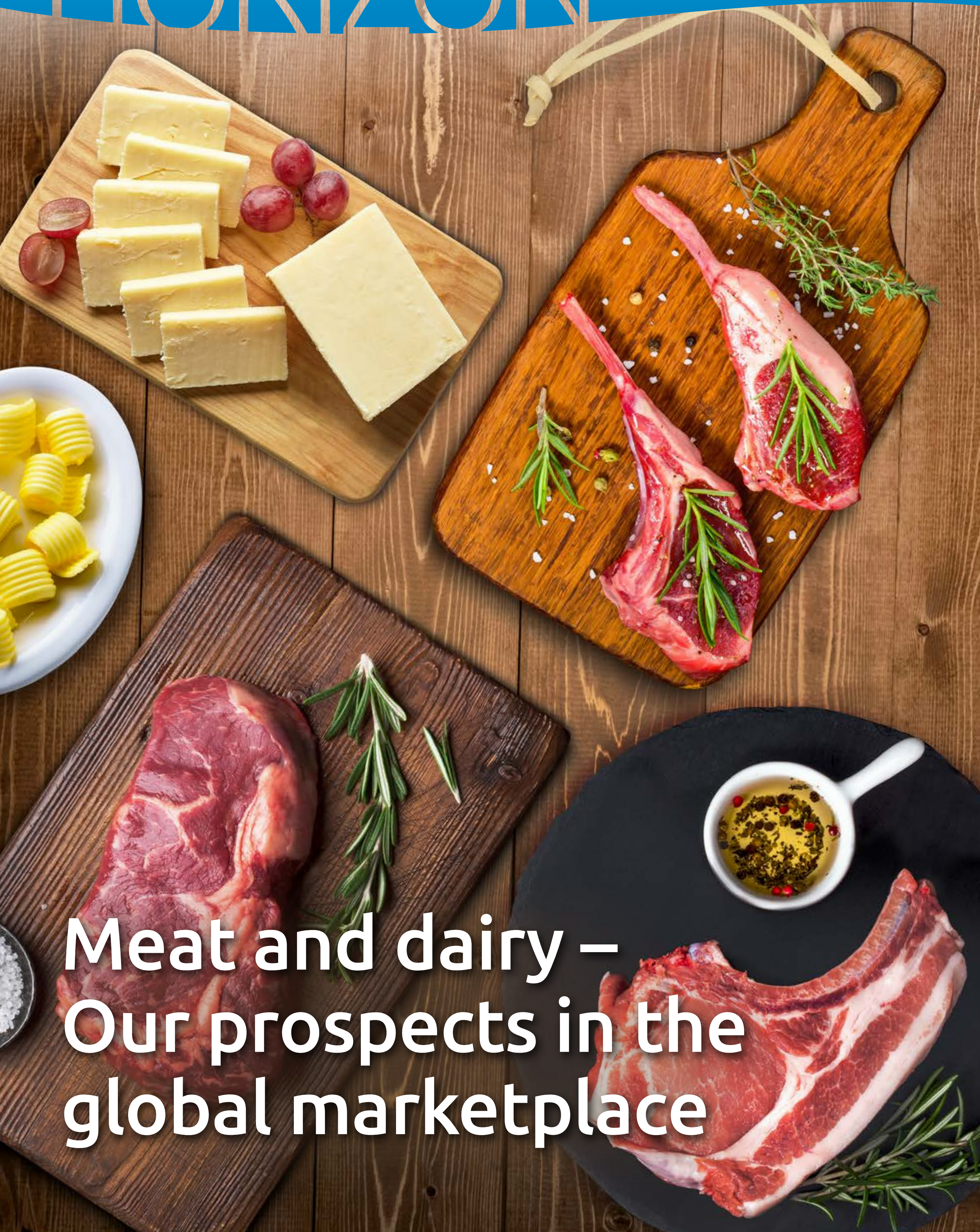
Market Intelligence September 2017

AGRICULTURE & HORTICULTURE DEVELOPMENT BOARD

HORIZON



Meat and dairy – Our prospects in the global marketplace

CONTENTS

FOREWORD

Tom Hind
AHDB Chief Strategy Officer

The prospect of striking trade deals with countries around the world and becoming a 'great trading nation' was heralded as a significant prize from Brexit by the Vote Leave campaign. Since the vote a number of countries, notably the USA, Australia and New Zealand, have made favourable noises about doing a trade deal with the UK.

In addition, the possibility of less favourable access to the EU market also pushes the livestock sector to look outside of Europe for potential sources of growth. This report systematically assesses the key overseas markets beyond the EU which, on paper, offer the greatest opportunities for dairy and meat products.

Looking forward the ongoing explosion of the middle classes in emerging markets across the globe is shaping both a demand for protein and, often, imported foods. Over the next 10 years the Organisation for Economic Co-operation and Development (OECD) in collaboration with the United Nations Food and Agriculture Organization (FAO) has projected that combined global imports of beef, lamb, pork and dairy products will grow by 16%.

In many respects, the UK is well placed to capitalise on overseas market growth in demand for meat and dairy. The UK 'brand' bears hallmarks of quality and heritage in the products we sell overseas. From the Premier League to the Royal Family, the UK punches above its weight in terms of international recognition. There are also opportunities for selling commodity products, particularly to emerging economies. In many cases this allows exporters to take advantage of higher prices for products than they could achieve in the UK.

> This report systematically assesses the key overseas markets beyond the EU which, on paper, offer the greatest opportunities for dairy and meat products.

Although identifying our export potential is not new, both industry and government need to take stock of their approach. The UK isn't the only country with a good story to tell. We're often behind the curve in exploiting markets compared to past masters like the Danes and Irish. Exporting requires a different mindset, seeing overseas markets as a prized opportunity rather than a potential dumping ground. What may be seen as a by-product at home may be high value to another consumer – we need to treat it as such. Finally, the UK is far from the most competitive exporter and our scale is small, therefore identifying and exploiting niches is critical.

Trade deals, depending on their nature could result in increased competition on the domestic market. And this serves to highlight a paradox for the livestock sector when it comes to exports. For the reality is that the greatest opportunities and threats may come in our home market. The UK is already less than self-sufficient in meat and dairy products. Identifying how the industry can displace imports through competing more effectively, whilst maintaining market share is likely to pose as big a challenge as winning new overseas markets.

BACKGROUND

In this report we explore opportunities for livestock products, from the beef, sheep meat, pork and dairy sectors.

Red meat

The UK has a relatively high degree of self-sufficiency in both beef and lamb at 76% and 92%, respectively, in 2016, but is a net importer of both, with a consumer preference for higher value cuts as well as mince. As such, the domestic beef and sheep sector has focused predominantly on the UK market.

For pig meat, UK self-sufficiency is 54%, as the UK imports significant quantities of bacon, hams, and loins. For the red meat sector, trade is as much about balancing the supply and demand for specific cuts and achieving a “carcase balance” as it is about producing meat for export, but the ability to place exports into markets is still of vital importance. The EU has very much underpinned that trade, not only in terms of its own demand, but also in terms of the access that membership in the EU provides when dealing with non-EU countries. This can be seen clearly in the case of pig-meat exports to China, where trade both in pork and in pig offal has expanded significantly since access was granted in 2011 due to high local demand for such products.

Export opportunities outside the EU fall into one of two categories—either commodity or premium quality products. The forage-based nature of the UK’s beef and lamb production system lends itself to the latter, but demand for these products is more “niche” and markets will take time to develop. The UK is less able to compete globally on price with low-cost, large-scale producers, particularly in the Southern Hemisphere.

The sheep sector would be particularly vulnerable to the removal of tariff-free trade with the EU, as the EU represents the main destination for UK exports. It is hard to overestimate the importance of trade with France in particular, as has been well documented by AHDB in previous Horizon reports.

Dairy

Historically, the UK dairy industry has relied on exports, predominantly to the EU, as a means of clearing excess stock not required for the domestic market. There are some good UK dairy exporters, but in general a lack of focus on growing value-added export markets means that the UK is playing catch-up to a number of international competitors. There is a significant risk to existing exports into the EU post-Brexit, as the introduction of any form of trade barrier is likely to make the UK uncompetitive with the EU’s domestic production.

The UK is a net importer for most dairy products, with the majority coming from the EU. The introduction of trade barriers for trade into the UK will put EU manufacturers at a disadvantage vis-à-vis the UK’s own domestic production. Import displacement is therefore seen as a significant opportunity for the UK dairy industry in terms of products such as Cheddar and yoghurt, which can be produced domestically.

As with red meat, dairy export opportunities outside the EU fall into two categories: large quantities of commodity products where the UK will need to be competitively priced) and smaller quantities of premium products (where product quality is the key). The UK is well placed for the latter, but will need to focus on the end consumer in countries where customer needs can be significantly different from those in the UK. To access non-EU commodity markets profitably, the UK will need to refocus on the whole supply-chain efficiency, learning from the best in the world and seeing where such efficiencies can be applied in the UK.

A SNAPSHOT OF CURRENT NON-EU TRADE

As outlined in the previous Horizon report, *What might Brexit mean for UK trade in agricultural products?*, exports of livestock-sector products are dominated by the EU. This section looks at the current trade in non-EU markets.

Beef

- Approximately 11% of current UK beef exports are sent to non-EU markets and are worth £31m. Expansion of UK beef exports to non-EU countries has been constrained by limited market access following the BSE–related restrictions of the 1990s. The UK has access to very few of the largest beef-importing countries, such as Japan and the USA
- In addition, the UK faces competition from lower-cost producers in the Southern Hemisphere. However, trade with Hong Kong, South Africa, and West African markets has been developed, which has provided a degree of stability for trade
- The leading non-EU market for UK beef in 2016 was Hong Kong at 4,000 tonnes, up from 2,500 in 2015. Gabon was the second largest at just over 1,300 tonnes, up sharply from 2015
- Beef offal shipments totalled 42,000 tonnes in 2016, of which shipments to non-EU countries were 47%, worth £25m at 19,800 tonnes. Hong Kong was the largest non-EU market at 6,000 tonnes. Other significant markets were South Africa at 3,200 tonnes (particularly for frozen livers) and the Ivory Coast at 1,700 tonnes

> “Beef offal shipments totalled 42,000 tonnes in 2016, of which shipments to non-EU countries were 47%, worth £25m at 19,800 tonnes.”

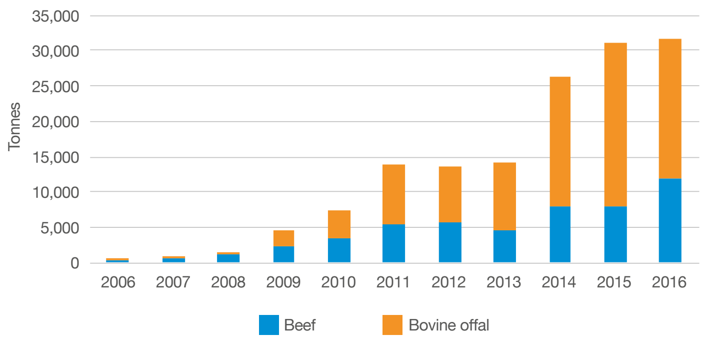


Figure 1. **UK beef and bovine offal exports to non-EU countries, 2006–2016**

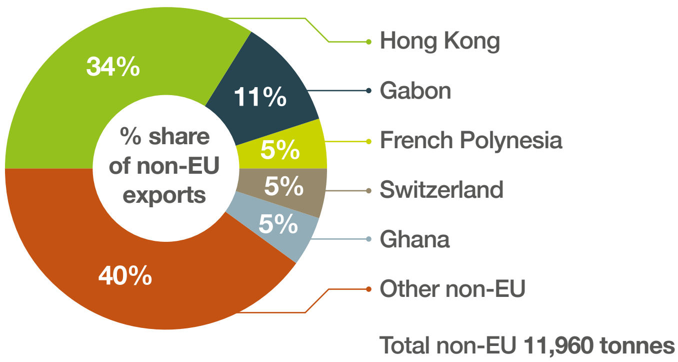


Figure 2. **UK beef exports (fresh and frozen) to non-EU countries by destination in 2016**

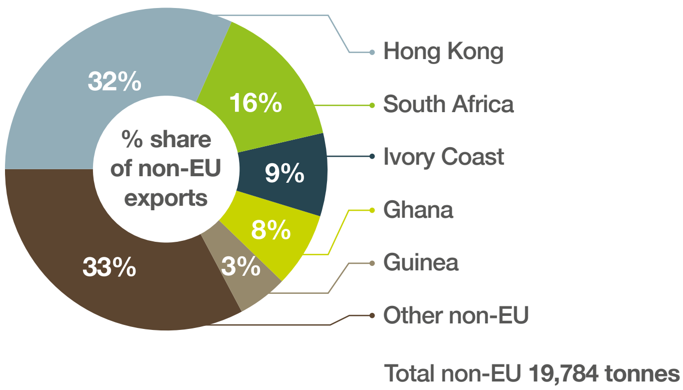


Figure 3. **UK bovine offal exports to non-EU countries by destination in 2016**

Source: IHS Maritime & Trade-Global Trade Atlas®/UK HMRC

Sheep meat

- Non-EU sheep meat exports were only 4% of total sheep meat exports. Market access is greater for sheep meat than for beef, but the UK struggles to compete against cheaper low-cost producers from the Southern Hemisphere and South America
- The recent history of sheep meat exports from the UK to non-EU countries has been mixed, initially showing growth in the period from 2006 to 2013, when exports grew by over 15,000 tonnes per year. The most important trading partner during this time was Hong Kong, where exports of fresh and frozen sheep meat had been growing steadily, until they saw a marked decline in 2015. However, in 2016 the largest non-EU market for UK sheep meat remained Hong Kong at 2,100 tonnes
- Non-EU sheep offal shipments were 37% of total sheep offal shipments in 2016 at 2,500 tonnes; 75% was frozen product, which went to Hong Kong, which is the biggest export for sheep offal either in or outside of the EU

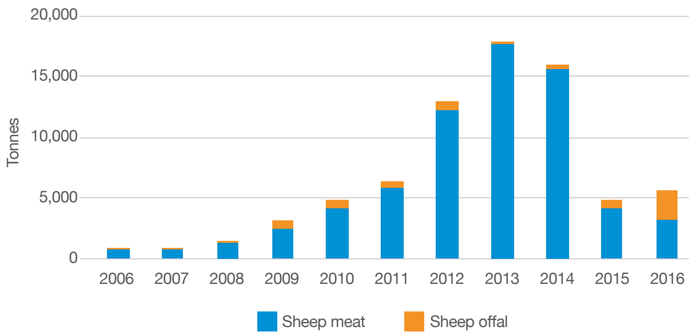


Figure 4. **UK sheep meat and offal exports to non-EU countries, 2006–2016**

> “In 2016 the largest market for UK sheep meat remained Hong Kong at 2,100 tonnes.”

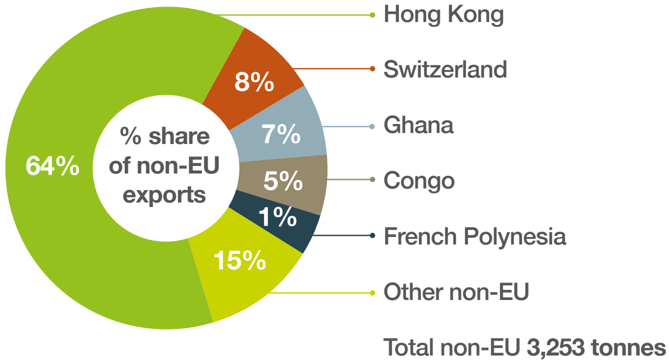


Figure 5. **UK sheep meat exports to non-EU countries by destination in 2016**

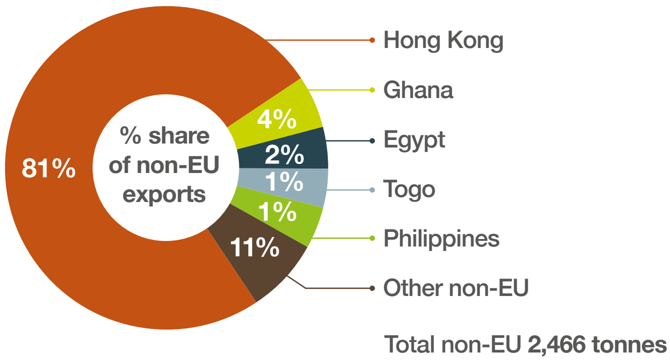


Figure 6. **Sheep offal exports to non-EU countries by destination in 2016**

Source: IHS Maritime & Trade-Global Trade Atlas®/UK HMRC

Pig meat

- Non-EU pig meat shipments represented 32% of the total UK pig meat product exported in 2016. Market access for pork is greater than for beef and sheep meat and in recent years the UK has been successful in increasing the volumes of red meat and offal that it has exported. AHDB has been active in supporting the opening of new markets and much of this growth has come following market access to China in 2011
- Non-EU markets have also been more significant for pig offal, increasing 15,000 tonnes on the year to over 61,000 tonnes, 79% of total UK offal exports. Offal plays a vital role in addressing carcase balance issues
- Total pig meat and offal shipments to non-EU markets were valued at £154m in 2016. The bulk of the growth has been driven by Greater China, where exports of pig meat and pig offal both increased on 2015 by approximately 13,000 tonnes
- Other large non-EU markets for pig meat in 2016 were the USA, increasing by over 2,000 tonnes on the year, and the Philippines, up 700 tonnes to 3,200 tonnes. Shipments of pig offal to the Philippines more than doubled in 2016, to 4,200 tonnes

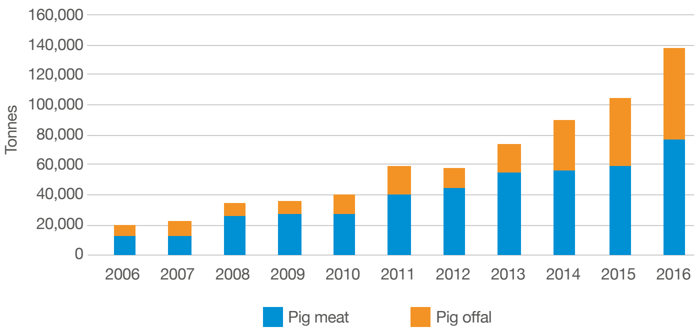


Figure 7. **UK pig meat and offal exports to non-EU countries, 2006–2016**

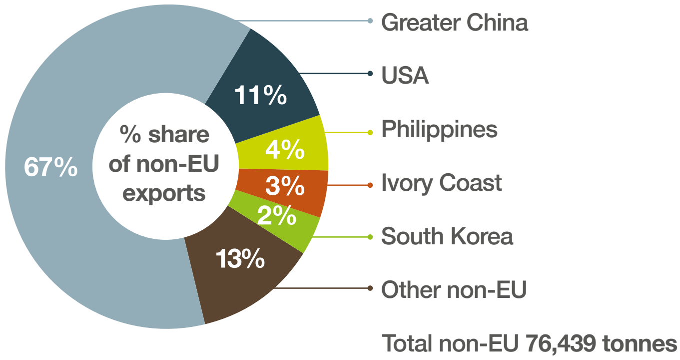


Figure 8. **UK pig meat exports to non-EU countries by destination in 2016**

Pig meat: Fresh/frozen pork, processed hams and shoulders, sausages, and bacon.

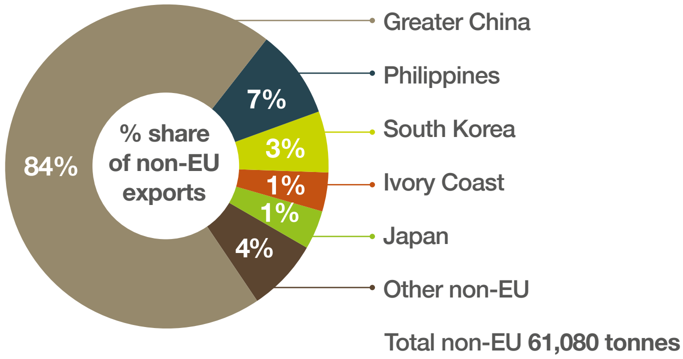


Figure 9. **UK pig offal exports to non-EU countries by destination in 2016**

Source: IHS Maritime & Trade-Global Trade Atlas®/UK HMRC

Butter

- Non-EU butter shipments represented 14% of total butter exports in 2016
- These non-EU shipments were worth £24m in 2016, up £9m from the previous year. This growth was driven by shipments to Canada, Saudi Arabia, and USA
- UK butter exports are often driven by overall milk production levels and the need to balance fat stocks within the UK. It is only since 2014 that a more focused approach to butter exports has taken place

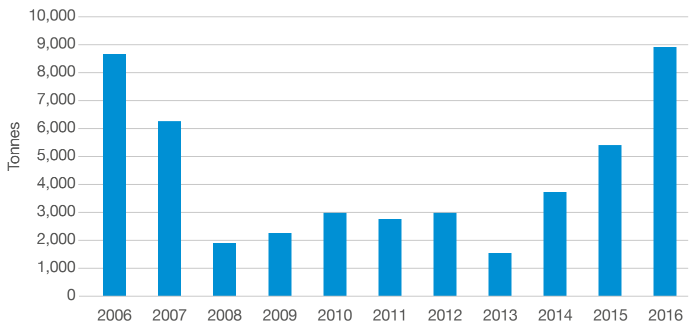


Figure 10. **UK butter exports to non-EU countries, 2006–2016**

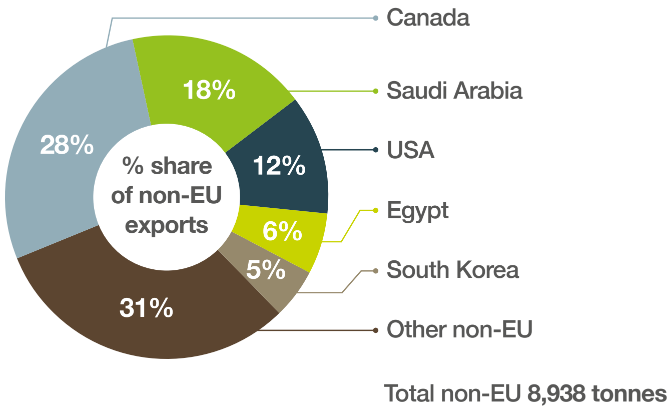


Figure 11. **UK butter exports to non-EU countries by destination in 2016**

Source: UN COMTRADE/Trade Map

Cheese

- UK cheese shipments to non-EU markets were worth 21% of the total cheese exported
- Exports of cheese to non-EU destinations have been growing year-on-year since 2008, although it is only from 2014 that significant year-on-year gains have been made as more focus is put on targeted export markets
- Total UK cheese exports were 163,000 tonnes in 2016, up from 152,000 in 2015. Growth was driven by shipments to non-EU markets, which were up from 26,000 tonnes to 35,000. In value terms, these were worth £141m, up from £110m the previous year. Increased shipments to Turkey, Australia, and South Africa helped drive the increase

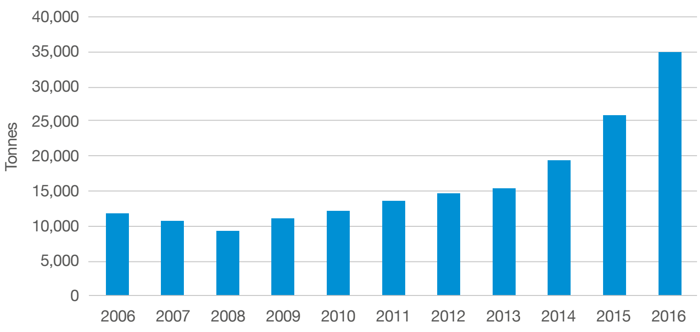


Figure 12. **UK cheese exports to non-EU countries, 2006–2016**

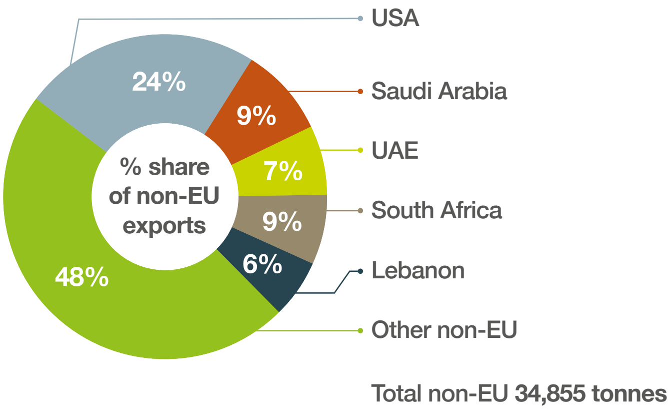


Figure 13. **UK cheese exports to non-EU countries by destination in 2016**

Source: UN COMTRADE/Trade Map

Milk powders

- Total UK milk powder exports to non-EU markets for skimmed milk powder (SMP), whole milk powder (WMP), and other milk powders (sweetened milk and cream in solid form) represented 14% of total milk powder exports
- WMP production in the UK is centred in Northern Ireland. Mainland Britain does not produce WMP, with powder production much more focused on SMP. Historically, SMP has been the go-to product for dealing with excess milk production, over and above domestic requirements. As such, SMP exports have been linked to the need to balance stocks in the UK rather than being a specific export-focused approach
- In 2016, non-EU exports were 33,000 tonnes, down from 50,000. The value of milk powder sales to non-EU markets fell to £114m, down from £118m. The fall was on the back of lower UK production. In 2016, the majority of milk powder sales to non-EU markets was for WMP

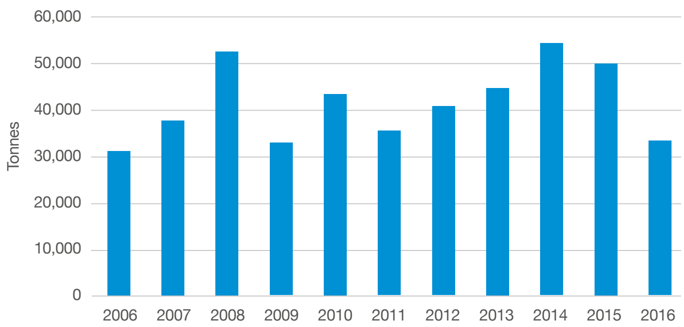


Figure 14. **UK milk powder exports to non-EU countries, 2006–2016**

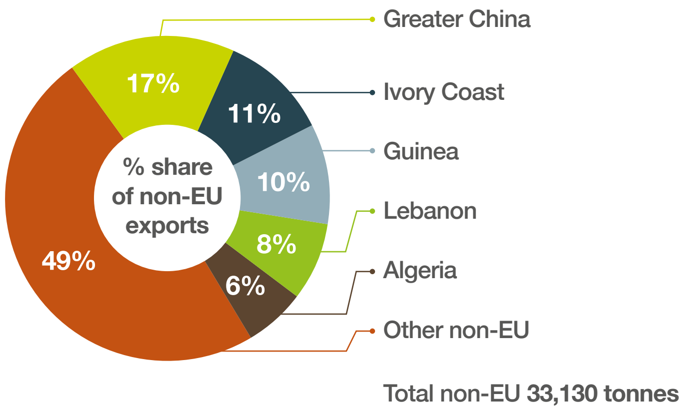


Figure 15. **UK milk powder exports to non-EU countries by destination in 2016**

Source: UN COMTRADE/Trade Map

WHAT DRIVES INTERNATIONAL DEMAND?

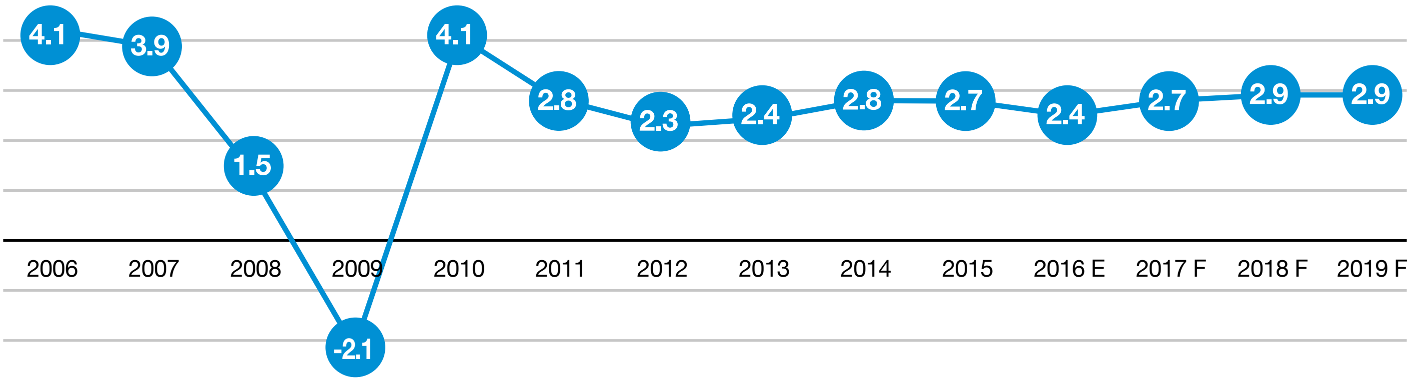


Figure 16. **World GDP Growth (%)**

Source: World Bank ; E = estimate, F = forecast

This section assesses some of the main drivers influencing international consumer demand. It provides an overview of the key drivers: gross domestic product (GDP) growth, population growth, income per capita and income distribution. A more detailed assessment of international markets is made in the country reports in Appendix 1.

World GDP entered recession in 2008, following a period of steady growth between 1990 and 2008, averaging 3.5% per annum. Although growth has recovered, the trend rate of growth is now below that pre-2008 rate.

The pickup in global activity is now projected to be more gradual than in the previous forecasts, especially in emerging market economies and developing economies. In advanced economies, a modest and uneven recovery is expected to continue. The picture for emerging market economies and developing economies is diverse. The slowdown and rebalancing of the Chinese economy, lower commodity prices, and strains in some large emerging market economies will continue to limit growth prospects. Despite this, World GDP is forecast to pick up, primarily due to a gradual improvement in Brazil, Russia, and parts of the Middle East.

Population growth

Another factor that will drive consumption is population growth. Over the past 30 years the worldwide population growth rate fell from more than 2.0% per year to 1.5%, and experts expect this trend to continue. But in absolute numbers the world's population is growing faster than ever before—by about 230,000 people a day in mid-1995. This is happening because of the larger-than-ever population base. The next 35 years are projected to add another 2.5bn people, with 90% of these in developing countries.

China and South East Asia, along with Africa and India, are predicted to experience the biggest population growth between 2015 and 2050. The share of developing countries in the world population is expected to increase from 84% to 88%, indicating that these markets will become increasingly important in world trade.

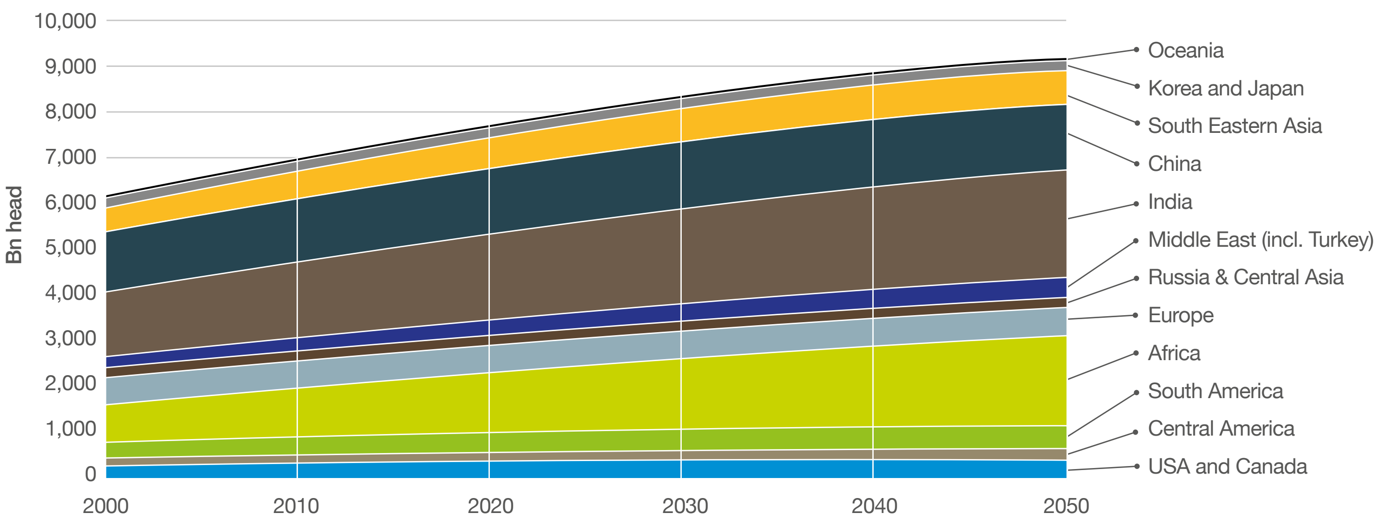


Figure 17. **World population – current and projected (in Billions)**

Source: World Bank and United Nations

Table 1. **Growth of the Global Middle Class** Source: The World Bank, Kharas and Gertz 2010

Region	2009 No. of people (m)	2009 Global Share (%)	2020 No. of people (m)	2020 Global Share (%)	2030 No. of people (m)	2030 Global share (%)
North America	338	18%	333	10%	322	7%
Europe	664	36%	703	22%	680	14%
Central and South America	181	10%	251	8%	313	6%
Asia-Pacific	525	28%	1,740	54%	3,228	66%
Sub-Saharan Africa	32	2%	57	2%	107	2%
Middle East and North Africa	105	6%	165	5%	234	5%
World	1,845	100	3,249	100%	4,884	100%

Surge of the middle class

Population growth alone does not indicate potential for UK agricultural exports. A demand for western goods, along with an ability to pay for them, will determine where the potential market opportunities lie. As such, the interplay between population and economic growth is important, together with the distribution of income. The surge of the global middle class is a trend which captures this. At current predicted growth, an emerging middle class is developing and crossing over from West to East.

This World Bank uses a definition of 'middle class' based on an income range of US$10–US$100 per day, which may seem low by western standards. However, at these income levels, consumers begin to have more disposable income to purchase consumer goods, and are open to an increasingly western diet with higher levels of protein consumption, benefitting the meat and dairy sectors.

From the data described, it would appear that the population growth in the Asia-Pacific region, particularly China and India, combined with GDP per capita growth and the increase in number of middle class consumers, will drive growth of meat and dairy sales. The Institute of Grocery Distribution reported that Asia is the largest grocery market in the world and, with 6.3% compound annual growth rate (CAGR), its market size will reach US$4.8 trillion by 2021, equivalent to Europe's and North America's combined. By comparison, it would appear that although parts of Africa will experience rapid population growth, the level and distribution of income in these countries will limit demand for many UK exports.

In summary, the word population is becoming larger and wealthier, the middle classes surging. In turn, this drives demand for meat and dairy. In the next chapter, we drill below these headline trends and explore the issues in specific countries.

THE OPPORTUNITIES

The OECD-FAO in their Agricultural Outlook to 2026 produced a series of projections for livestock products. The graph below shows that the consumption of pig meat, beef and veal and poultry meat look set to rise significantly. More moderate roses are forecast for dairy products. The bulk of this increase in consumption looks to be met by domestic production but nevertheless based upon this opportunities for global exporters of meat and dairy look to be significant.

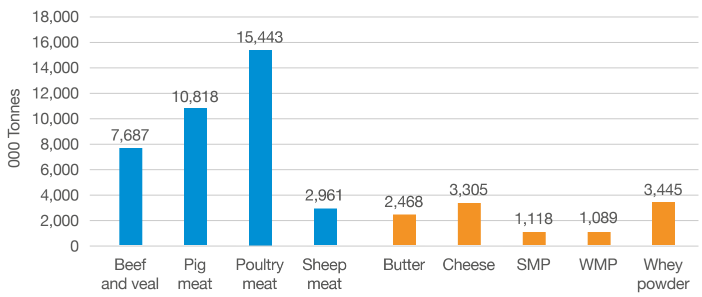


Figure 18. **Projected growth in global consumption, 2016–2026**

Note: Meat figures are carcase weight equivalent. Dairy figures are product weight.

Source: OECD-FAO; SMP = skimmed milk powder; WMP = whole milk powder.

The greatest area of growth for the import of meat and dairy products looks set to be in Asia, accounting for over two-thirds of the projected world growth, as shown below.

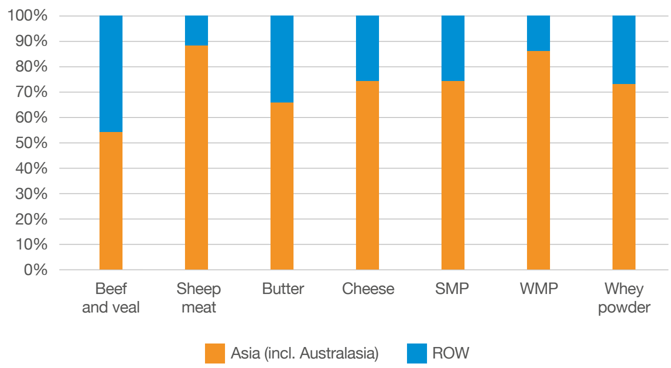


Figure 19. **Projected shares of the global growth in in imports by region, 2016–2026**

Note: Meat figures are carcase weight equivalent. Dairy figures are product weight. Pig meat imports are projected by the OECD-FAO to decline by around 2% from 2016 to 2026 and so are not shown in the chart.

Source: OECD-FAO; SMP = skimmed milk powder; WMP = whole milk powder; ROW = rest of world

Using the OECD-FAO projections for consumption and imports as a starting point, AHDB has evaluated non-EU markets for UK red meat and dairy and produced two tables showing prospects by product. Detailed profiles on the key markets are given in Appendix 1.

Jean Pierre Garnier
Head of Livestock Export Trade Development

These ratings are the result of data analysis, deep knowledge of target markets as well as understanding of the capability of the British meat and dairy production and processing sector. Also in practice, they reflect the possibilities of market access, the existence of tariffs and non-tariff barriers such as Halal requirements. They are a realistic assessment of the development opportunities for UK meat and dairy exports.

The development of export of livestock products must be considered as medium-term goal backed by market access work, trade negotiations and marketing support and continued supply in order to maintain the existing price levels for our meat and dairy products.

Red meat

Product has been classed as:

Commodity or low-value cuts: For pork this would typically be livers, belly, caul fat, head, mask, and trotters. For bovine this would be livers, brisket, flank, clod, ox heart, skirt, and tripe. For sheep meat this would be livers, tripe, riblets, heart, heads and trim.

Premium cuts: For pork this would be loins, collar, fillet (tenderloin), and legs. For beef this would be topside, forerib, fillets, and rumps. For sheep meat this would be legs, racks, chump, shoulder, and loins.

This is based upon product that is classed as commodity or premium in the UK. For example, a product classed as "commodity" in the UK may be defined as a premium product in other parts of the world (e.g. trotters or tongues in parts of Asia).

UK beef

Prospects for beef in non-EU markets look to be limited, especially in the short term. The UK does not have widespread access to beef and so markets would need to be opened up. Opportunities in the Middle East/ North Africa region and countries such as Indonesia are limited by the need for halal product and low-cost product. The best opportunities for beef look to be for low-value cuts and offal to West Africa and emerging Asian economies such as the Philippines where the UK recently gained market access. China would offer longer term growth and volume prospects for both low- and high-value cuts and the UK has been working hard to gain access. Niche, high-end opportunities could exist in the East Asian economies of Japan, South Korea and Hong Kong. However, the UK has had access to Singapore, a high-wealth economy, for over three years, yet has exported little beef due to its high price.

UK sheep meat

Prospects for UK sheep meat outside of the EU are also limited in the short term due to its relative high product cost and lack of market access. Sheep meat consumption in China has been falling rather than increasing and the UK faces stiff competition from Southern Hemisphere producers. Prospects for premium cuts look to be limited to the rising middle classes in China and India. The USA and Canada could also offer prospects for premium cuts. China is likely to offer some opportunities for offal in the longer term.

UK pig meat

Pig meat prospects look to be significant in South East and East Asian economies for lower value cuts and offal. The UK already exports a range of offal to China. As of August 2007, seven new UK businesses have been approved to export pork to China, including three that can now export trotters. It has been estimated these new developments could be worth as much as £200m to the UK industry. It was reported by Olymel, one of Canada's biggest pork packers, that trotters in June 2017 were retailing for £1.43 per kg, whereas in the UK trotters have minimal or no value. In addition, West Africa and South Africa offer further opportunities for such product. Taiwan and South Korea could offer demand for commodity product. Premium opportunities look to be more limited to North America and Australia/New Zealand, with small potential for high quality food service in China and Japan.

The summary tables below give star ratings to markets for potential for UK red meat and dairy products. Commodity and premium products have been rated separately.

The ratings system is * = medium, ** = high, and * = very high. Countries falling below the one star level have been intentionally not shown. Those with the highest scores therefore are where we believe resources for market access/trade development should be concentrated. Countries are listed alphabetically within each score rating. The position of a country in a list therefore does not reflect the level of trade opportunity.**

Table 2. **Red meat prospects rated**

Source: AHDB

Score	Beef		Sheep meat		Pork/pig meat	
	Commodity	Premium	Commodity	Premium	Commodity	Premium
***	China				China	
**	Hong Kong Ivory Coast other West Africa Philippines	Hong Kong	China	Canada China Hong Kong USA	Hong Kong Ivory Coast other West Africa Philippines Singapore South Africa South Korea Taiwan	Hong Kong USA
*	Canada Caribbean Egypt Indonesia Japan Latin America Malaysia Mexico Russia South Africa South Korea Taiwan Thailand Turkey UAE/Gulf USA Vietnam	Canada Caribbean China Indonesia Japan Malaysia Mexico South Korea Turkey UAE/Gulf USA	Canada India Japan Mexico Saudi Arabia South Africa USA	India Japan Mexico Russia Saudi Arabia South Africa UAE/Gulf	Canada Caribbean India Japan Mexico Russia Thailand Vietnam	Australasia Canada China India Japan Singapore South Korea Taiwan

Dairy

Dairy product has been classed as:

Commodity product: Product which is typically used as an ingredient (eg bulked bag Cheddar blocks)

Premium product: Product which is typically sold direct to the consumer (eg packed mature Cheddar)

UK dairy

Dairy prospects look to be wider and differ by product and region. While market access is a key issue for red meat products, for dairy the main barriers are tariffs and the ability to compete on price.

China, in particular, offers opportunities for a wide range of dairy products, including butter, cheese, and powders. For example, cheese consumption in China in 2016 was 0.26kg per capita, as compared to 18.40kg in the EU. Dairy has not been traditionally part of the diet in China and, despite high levels of lactose intolerance, there is considerable scope for market development. Most hard cheeses have only small amounts of lactose and as the cheese ages that level drops even further. Butter is also very low in lactose, and more refined fats such as concentrated butter and ghee are effectively lactose-free. Milk powders do tend to have high levels of lactose and could be more challenging for those with an intolerance.

Canada offers potential for high-quality cheese if the UK can maintain quota access post-Brexit. Similarly, the USA offers potential opportunities for high-quality cheese and butter. There are also opportunities for small quantities of high-value product in established higher-income east-Asian economies, such as Japan, Singapore, and South Korea.

In addition, the Middle East could offer prospects for cheese, butter, and powders. There is also scope for commodity dairy products in emerging South East Asian countries. The UK does not produce significant quantities of whey powder, with most cheese plants now focusing on higher-value alternatives, but projected imports in many South East Asian countries, as well as Egypt and India, are high and could offer opportunities. Research is needed to investigate the practicalities of switching back to whey powder, or meeting this export requirement through alternative whey derivatives.

In order to explore the opportunities for red meat and dairy in each country in detail, further research is needed. Consumer insight can help reveal the purchasing drivers of consumers, wholesalers, and retailers which relate to factors such as price, provenance, food safety, and eating quality and will differ significantly by country. Sales channels may also differ significantly across different markets. Gaining an understanding of the way livestock products are produced could affect carcase specifications; so too could the way product is butchered, marketed, labelled, and sold.

Exporting agricultural goods from the UK usually requires an export health certificate. A link to the latest list of current certificates, showing market access as well as which products the UK can export and where they can be exported to, is available in Appendix 2.

Import displacement

As prospects look challenging for UK exports outside of the EU, there are opportunities for import displacement, depending upon the external tariff wall. For all the

Table 3. **Dairy prospects rated**

Source: AHDB

Score	Butter		Cheese		Milk powders	
	Commodity	Premium	Commodity	Premium	Commodity	Premium
***	China	China USA	China	China	China	China
**	Algeria Egypt India Malaysia Mexico Turkey UAE/Gulf	Hong Kong Japan Saudi Arabia Singapore South Korea UAE/Gulf	Egypt India Malaysia Mexico Saudi Arabia Turkey	Canada	Algeria Egypt India Malaysia	Hong Kong Japan Singapore South Korea
*	Brazil Cuba Indonesia Lebanon Philippines Russia Taiwan Thailand Tunisia Vietnam	Australia Canada India Russia South Africa Taiwan	Brazil Cuba Indonesia Lebanon Taiwan Tunisia Vietnam	Egypt Hong Kong Japan Saudi Arabia Singapore South Korea UAE/Gulf USA	Brazil Cuba Indonesia Ivory Coast Lebanon Philippines South Africa Taiwan Tunisia Vietnam West Africa	Canada

livestock products there is some scope for import displacement, to varying degrees. Self-sufficiency is especially low in the pig meat sector (only 54%) and beef (76%). Carcase balance issues limit the scope for import displacement. For example, import substitution for pig meat would mainly involve loins and legs. Producing more of those in the UK would mean more shoulders and offal to sell, so, unless demand for them could be boosted on the UK market, it may not be economical. For the sheep meat sector, the UK might be self-sufficient, but this hides the fact that because of the seasonality of production it has a deficit in the first half of the year and a surplus in the second half. Making inroads into import displacement in the UK has been difficult and is further affected by declining lamb consumption.

Import displacement could be more significant for dairy. The UK has the second largest dairy trade deficit in the world, behind China, with the vacuum filled by EU product (and this could be at risk post-Brexit). The UK is a large net importer of Cheddar (22,000 tonnes), butter (23,000 tonnes), yoghurt (126,000 tonnes) and milk formula (75,000 tonnes). With the exception of infant milk formula, the UK has sufficient know-how to produce these products, although capacity is likely to be a constraint, particularly around the spring peak, requiring an investment in processing. That said, the investment needed would be significantly less than for new-build facilities.

External challenges - It's not all plain sailing

Having access to a market with growing demand does not guarantee success for the UK. There is a difference between 'trading arrangements' and 'trade deals'. Trading arrangements are needed for market access. The UK has been successful in developing markets for pork (in particular, China), although it should be noted that this took over seven years. Trade deals, often needed to ensure tariffs, are not prohibitive but take time to negotiate.

In addition, non-tariff barriers can be considerable and can cover sanitary and phytosanitary (SPS) measures and technical barriers to trade. In practice these measures are often the hardest to agree upon in trade agreements, with issues such as antimicrobial treatments and hormone-treated beef being highly contentious. Technical barriers can also be obstacles such as country-of-origin labelling and restrictions on genetically modified products (eg in order to export pork to China, UK product has to be compliant with Chinese food safety law).

Levels of access to existing non-EU markets could change once the UK exits the EU. At present, the UK has a range of bilateral agreements, many of which will cover technical aspects and rely on the fact that the UK is subject to EU rules and regulations. However, it is likely that, as long as the UK adopts EU meat-hygiene regulations, market access would be continued, but this would have to be agreed to with the country in question.

Mick Sloyan
Director, AHDB Pork

China: Case study for pork

In the early years of the millennium, we were looking to re-establish exports after losing our markets in the wake of Foot & mouth Disease (FMD) in 2001. An analysis of trade data showed that China was beginning to emerge as a global importer as well as being the world's largest pork producer and consumer. Following a number of trade missions starting in 2004 we joined together with Defra, The British Embassy and local market specialists the China Britain Business Council to seek official approval for British companies to export breeding pigs and pork to mainland China. This process involves technical negotiations between the Chinese and UK authorities on the equivalence of animal health and meat hygiene standards. It took until 2011, but it would probably have been concluded earlier had we not had a small outbreak of FMD in 2007. In parallel to the official negotiations, we promoted commercial relationships between prospective British exporters and Chinese importers through trade missions, international conferences and trade shows.

Exchange rates are also key and the UK has seen depreciation of sterling against major currencies, including the dollar and euro, following the Brexit vote, which has helped boost exports in the past year. However, other competitor countries such as Australia and New Zealand have also experienced depreciation against the US dollar.

Political situations often change and that can have a big impact on market access and need (eg political change may result in a country becoming more or less protectionist). The UK has been locked out of Russia for agricultural exports since August 2014, following the EU's imposition of sanctions. Overall, export risk can be mitigated by having export access to a greater spread of markets. In addition, a closed market can lead to exports from competing countries being diverted to other markets of interest. For example, Denmark in 2013 exported over 75,000 tonnes of fresh and frozen pork to Russia, which has now been diverted into other markets, increasing competition in these countries.

In addition, some markets will require huge marketing resources to be successful, so these costs of entry may be prohibitively expensive.

In summary, there are a range of external factors that can have an impact on exports to a market, such as changing political situations, exchange rates, and non-tariff barriers. Maintaining access to existing non-EU markets post-Brexit is of great importance as well as negotiating access to new ones, and resources need to be devoted to this to ensure market development.

COMPETITION

The UK faces competition not just from meat production in other countries, but also from other proteins. Global consumption of poultry meat is set to climb by 13% between 2016 and 2026. The OECD-FAO projects global meat production to grow 11% by 2026 from around 317m tonnes today, and that nearly three-quarters of that growth will come from developing countries. Meat production in developing countries will continue to be dominated by China and Brazil, the former benefitting from economies of scale as production moves towards increasingly commercial enterprises, and the latter from resource abundance and a devalued currency. Across the globe, poultry will account for the largest share of growth during the projected period, although pork too will see particularly significant gains in production. The USA will exhibit strong production growth, again with the emphasis on poultry, but with increases also expected in pork and to a lesser extent beef.

The growth in poultry consumption will also be problematic for the UK's livestock sector with respect to export potential, as it is for red meat production everywhere. As a low cost protein increasing in popularity with consumers in both the developed and developing world, poultry undermines the growth potential for the sector as a whole, even before nations begin to compete with each other on price. This re-emphasises the opportunity that UK may have in establishing itself, for example, as a source of high-quality, premium meat products, although demand for these is likely to be limited. The AHDB has been active in promoting this story into target markets.

The countries with the greatest additional share of beef production according to the OECD-FAO Outlook to 2026 are those that will be best able to compete on a low-cost basis. Brazil, the USA, Argentina, and India are all expected to increase production (although India's output contains a significant quantity of carabeef, or water buffalo meat, which is a lower-cost but also lower-quality product than beef and so does not compete directly). China will also expand its output as shown, thereby displacing some import demand.

Australia and New Zealand will likely continue dominating the global sheep meat market, geared as their production systems are towards exports. Australia in particular has made nationwide progress towards targeting the growing global halal market. In terms of output growth however, only China is expected to have a substantial increase in sheep meat production.

The USA, Brazil, and the EU are the countries that will provide the greatest level of competition to the UK in non-EU markets for pig meat, although EU exports are projected to fall back 11% to 2026. Until now the biggest area of demand growth has been China and this is expected to continue, although mitigated to some extent by China's own rationalisation and increased commercialisation of its own domestic pig industry.

Table 4. **Key red meat exporter growth prospects**

Country	Exports 2016 (000 tonnes cwe)*	Projected export growth 2016–2026 (000 tonnes cwe)*
Beef and veal		
Argentina	230	463
Australia	1,913	300
Canada	619	100
Brazil	1,893	633
EU28	462	-138
India	1,655	275
New Zealand	621	-91
USA	1,413	188
Sheep meat		
Australia	428	109
EU28	70	-15
New Zealand	497	-7
Pig meat		
Canada	1,465	119
Brazil	538	69
EU28	2,728	-288
USA	2,386	218

*Estimates; CWE = carcase weight equivalent.

Source: OECD-FAO Agricultural Outlook 2017-2026

Table 5. **China production growth prospects**

Meat	Production 2016 (000 tonnes cwe)*	Projected production growth 2016–2026 (000 tonnes cwe)*
Beef and veal	7,170	1,536
Sheep meat	4,590	1,104
Pig meat	53,000	6,309

*Estimates; CWE = carcase weight equivalent.

Source: OECD-FAO Agricultural Outlook 2017-2026

Country Snapshots

Denmark

Denmark has developed a very successful export business for pork and exports around 90% of its fresh/frozen pork production, increasing its overseas shipments from 820,000 tonnes in 1997 to 1.1million tonnes in 2016. Of this around 30% of pork is shipped to non-EU markets. Denmark has high veterinary standards and was approved for Australia back in 1997.

The export strategy of the Danish pig meat industry is to export a specific cut to the market where the highest price can be obtained on the spot market or by contract, such as backs to Japan and ribs to the US. The main exporters are the two large cooperatives, Danish Crown (a farmer owned cooperative) and Tican Fresh Meat. There is therefore strong vertical integration with the production sector, and this enables efficient completion of the certifications required for exporting. Processors have shown knowledge about the yield from the specific cut for the bacon manufacturing process.

In addition, over the same period Denmark has successfully expanded its live pig exports from 1.2m head to 13.3m. The vast majority of these are weaners supplied to Germany and Poland.

New Zealand

When the UK joined the European Economic Community in 1973 New Zealand suddenly lost access to most of its key consumer for export goods. This was at a time when the oil crisis pushed up imported fuel costs adding to the economic difficulties. New Zealand had to look elsewhere for its export markets and diversify in order to reverse its declining prosperity.

By 2006 New Zealand was exporting goods to over 200 countries. A real focus has been made to gain market access in order to diversify with trade agreements with many of the key Asian growth markets identified in this report. New Zealand has looked to science and technology to improve productivity, efficiency to become globally competitive and also increase profitability. The removal of subsidies in the 1980s made this even more critical. Value has been added to its meat exports by processing carcases into smaller, speciality cuts before exporting. Since 1987 the number of cuts that have been sent without further processing has halved.

Understanding customer needs has also been of great importance. Milk once just turned into butter and cheese is now processed into many forms before leaving its shores, tailored to the external customers' needs. Dairy export growth has averaged 7.2% per year over the past 26 years, according to the New Zealand Institute of Economic Research. Investment has been key to supporting the growth and the dairy processing sector is continually upgrading its plant to handle greater volumes of milk, produce a wider range of products for domestic use and export and improve efficiency, with over $2bn capital investment since 2014.

AHDB has produced a report which focuses on what the UK can learn from reforms in New Zealand at the link below: **ahdb.org.uk/brexit/**

Republic of Ireland

The Republic of Ireland has a population of just 4.8 million, similar to New Zealand. However, the country's agricultural industry has managed to become a significant player in the global export market. Ireland's export figures show that the country produces enough food to supply 36 million people. Circa 90% of the country's net beef output is exported and Ireland is Europe's largest beef exporter. In addition, 85% of dairy production is exported. The UK has been the dominant market and the Irish beef and dairy industries have developed to meet the needs of the UK consumer. In addition, Irish companies have invested in processing capacity in the UK.

Export marketing activity is supported by Bord Bia, an Irish government funded organisation, with statutory levy and other EU grants. It has a HQ in Dublin but also has an international network of offices in Amsterdam, Dubai, Dusseldorf, London, Madrid, Milan, Moscow, New York, Paris, Shanghai and Stockholm. Bord Bia is promoting the Irish 'Origin Green' campaign through their office network which is a scheme that aims to position Ireland as a provider of safe, quality and sustainably produced food.

In summary: These three countries have been very successful in building their export sales and a number of factors are common to all.

- Economies of scale in production, processing and logistics
- Investment in processing technology in both the home market but also overseas target markets
- Adding value to the final product through further processing
- Uniform and consistent product quality
- High food safety standards
- High veterinary standards
- Understanding the specific market needs and tailor the offering to the market
- Building and investing in relationships with businesses and individuals in the target markets
- A long-term focus on the customer and commitment to the market

According to OECD-FAO projections, global dairy exports are expected to increase by 22% by 2026. As the table below shows, the largest rise in absolute terms is set to come from the EU, with a 37% increase of 715 tonnes.

Table 6. **Key dairy exporter growth prospects**

Country	Exports 2016 (000 tonnes)*	Projected export growth 2016–2026 (000 tonnes)*
Dairy products		
USA	885	145
New Zealand	2,418	548
EU28	1,946	715
Australia	424	17
Argentina	195	108
ROW	1,955	224
Total	7,822	1,758

NB: Based upon exports of butter, cheese, and SMP/WMP powders.
*Estimates; ROW = rest of world; SMP = skimmed milk powder; WMP = whole milk powder.

Source: OECD-FAO Agricultural Outlook 2017-2026

The EU is projected to show export growth in the four main dairy export products; cheese, butter, SMP and WMP. According to OECD-FAO, export expectations from other key exporting nations are more conservative. However, New Zealand is expecting to see WMP exports rise by 22% between 2016 and 2026, maintaining a 53% share of the overall global market.

The EU is projected to account for 40% to 50% of the growth of global cheese exports by 2026. The EU's main targets will likely remain: USA, Japan, Switzerland, Saudi Arabia, and South Korea.

However, the Comprehensive Economic and Trade Agreement (CETA) could see Canada becoming a key importer of EU cheese. It is not expected that too many other countries will become key to EU exports. However, the opening of the Iranian market has seen a substantial increase in butter exports from the EU. In addition to this, West Africa is likely to be increasing its imports of powders from the EU by 2026.

Projections for the USA, according to OECD-FAO, are relatively stable, with only SMP predicted to see any sizeable growth. Australia is also projected to be largely unchanged, with small growth in butter and cheese, but a decline in WMP exports.

While OECD-FAO predicts an increase in WMP exports by Argentina, Rabobank suggests Argentina's internal market will increase its market share of domestic production from 75% up to 85%. With the ongoing political issues and lack of industry investment in the country, export expansion from the Argentinian industry could be restricted.

For the USA, US Department of Agriculture projections would suggest a large increase in exports.

Increasing demand from China and South East Asia is keeping the interest of Oceania, especially New Zealand, and this will likely continue over the coming years. In Australia, a number of developments could see overall exports reduced. Recent issues over milk production, caused by low world markets, tough weather conditions, and other domestic issues, could affect the recovery rate of Australian milk production growth. According to Dairy Australia, population growth and resilient per capita consumption are likely to result in a reduction of available product for export. However, value-added products are the focus for exports, which could see value be maintained or increased.

In summary, the threat from traditional global competitors, such as the USA, South America, and Australia, is likely to continue to be strong for beef in the period to 2026. A projected fall in New Zealand sheep meat will be more than compensated for by increased Australian exports. The EU will remain a key competitor in the pork sector, despite projected falls in its exports to 2026 and a growing threat in the dairy sector, with a strong increase in dairy exports (particularly cheese and SMP) projected.

Free trade agreements (FTAs)

Competition in non-EU markets is strong. Both Australia and New Zealand, which are major competitors in the beef, sheep meat, and dairy sectors, have been active in signing both bi-lateral and regional trade agreements with Asian nations over the past 10 years, giving them preferential access. Whilst the Trans Pacific Partnership (TPP) is losing the USA as a member following the recent US election, both Australia and New Zealand are also part of the China-led Regional Comprehensive Economic Partnership (RCEP), which is looking to create a wide regional deal. The TPP may also continue without the USA. In 2016, prospective RCEP member states accounted for a population of 3.5 billion people with a total GDP of $23.8 trillion, approximately 30% of the world's GDP. Member countries include the Association of South East Asian Nations (ASEAN) trading bloc as well as Japan, South Korea, and China, along with Australia, New Zealand, and India.

The competitive threat from Australia and New Zealand is likely to increase in the next few years, as many of the deals signed are based upon the removal of tariffs over time. New Zealand already has free trade with China since 1 January 2016, following the 2008 New Zealand-China FTA and subsequent transition period. New Zealand exports of agricultural products are dominated by countries with which it has FTAs or, in the case of the EU, preferential access through quotas. Australia has the China-Australia Free Trade Agreement (ChAFTA) trade deal with China, which came into force on 20 December 2015 and which will eliminate tariffs from 1 January 2023 to 1 January 2026, depending upon product. Before the FTA, tariffs on Australian beef ranged between 12% and 25%, on lamb they were 15%, and mutton cuts 23%. For dairy products, they ranged between 10% and 20%. The USA is the second largest global pork exporter and it now ships more product to the 20 countries with which it has FTAs than the other 80 or so countries with which it does not have.

Clearly, such exporting countries recognise the importance of FTAs in increasing market opportunities for their products, and negotiations are inevitably already in place for concluding further FTAs. Such a situation should equally apply to the UK in increasing trade with non-EU markets. However, if the UK wishes to sign new trade deals with non-EU countries, then we would need to be outside the EU Customs Union and European Single Market. The UK is not able to sign deals with non-EU nations until it has formally left the UK, which looks to be in March 2019, but informal discussions can take place.

The UK, through its membership in the EU, has free trade access to a range of countries, including Mexico, Canada, Vietnam, South Korea, and South Africa, but many of these have limited coverage for agricultural products. For example, for Canada the limitations for agriculture are that the deal will take seven years to eliminate tariffs on 91.7% of agricultural lines. The remainder are sensitive products, offered under a tariff rate quota (TRQ) (eg dairy, beef, and pork) or excluded altogether (chicken, turkey meat, and eggs). The Canadian dairy TRQ will only allow approximately 18,500 tonnes of EU cheese (4% of the Canadian market). Similarly, the EU will only allow 80,000 tonnes of imported Canadian pork, amounting to 0.4% of EU consumption. However, after four years of negotiation the EU has recently signed an agreement in principle with Japan (in July 2017), which will almost eliminate tariffs for beef, pork, and cheese, albeit over long transition periods. When the UK leaves the EU it seems unlikely that any such agreements would be grandfathered across. To be fully compliant with WTO rules and regulations, a formal trade agreement would be needed.

In summary, getting the right FTAs will be crucial to the development of the UK's trade with non-EU countries.

“In summary, getting the right FTAs will be crucial to the development of the UK's trade with non-EU countries.”

International competitiveness – How do we measure up?

We know that in general the UK is a high-cost producer of high-quality products, but how do we compare across the red meat and dairy sectors?

The UK suffers from its lack of competitiveness, especially in production, when it comes to supplying the global market. This includes the large-scale exporters of meat and dairy products, notably North and South America and Australia and New Zealand. Land and labour costs in the UK can be higher, while in many cases the fragmented nature of both livestock production and livestock processing reduces competitiveness even further. Note, though, that exchange rate changes inevitably influence relative production costs and the lower value of sterling since June 2016 (following the Brexit referendum) has reduced the differences compared with other countries.

In the case of suckler cow herds, the UK cost structure is at least twice as high as that of the major exporters of Australia and Brazil, and higher still, when compared with the typical farm in the USA. The British key higher costs are due to a smaller British herd size, resulting in higher labour costs, and greater machinery and building investment by British farmers. Costs are also higher compared to other EU member states such as Ireland and France, who often farm part-time and/or have off-farm income, make greater use of forage, and often have lower machinery investment costs due to a higher reliance on contractors. In the following suckler herd comparison chart, the number after the country indicates the number of breeding cows kept on these typical farms.

Somewhat similar developments apply to beef finishing. The following chart splits those typical farms finishing calves from their own suckler herds and those typical farms finishing purchased calves or stores. The number after the country name indicates the total number of animals finished per year. There can be differences between breed and background, for instance, China 300 purchases and finishes Simmental cross calves, and China 2000 finishes dairy bulls.

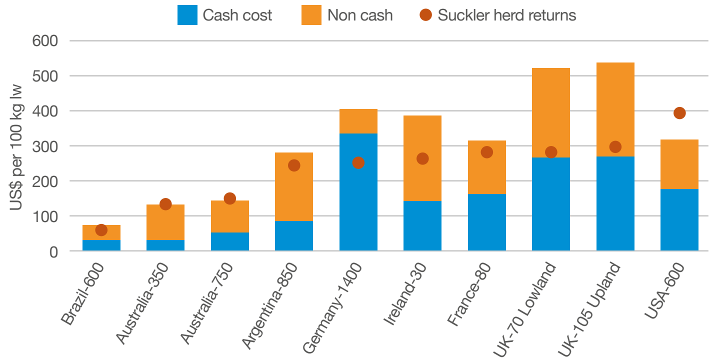
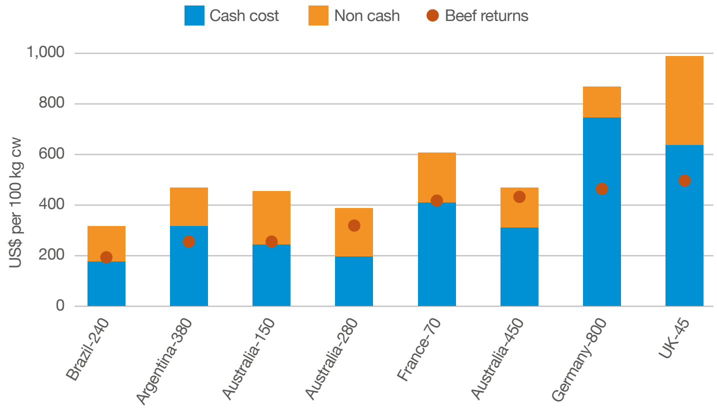


Figure 20. **2015 costs of production for suckler herds for the UK and selected regions in order of suckler herd returns**[1]

[1] Non-cash costs shown in these three charts for suckler herds, beef finshing and sheep and may consist of the inputed costs of unpaid/family labour, inputed rent for owner-occupied land and depreciation (based on capital investment of machinery and buildings).

Source: AHDB, Agribenchmark



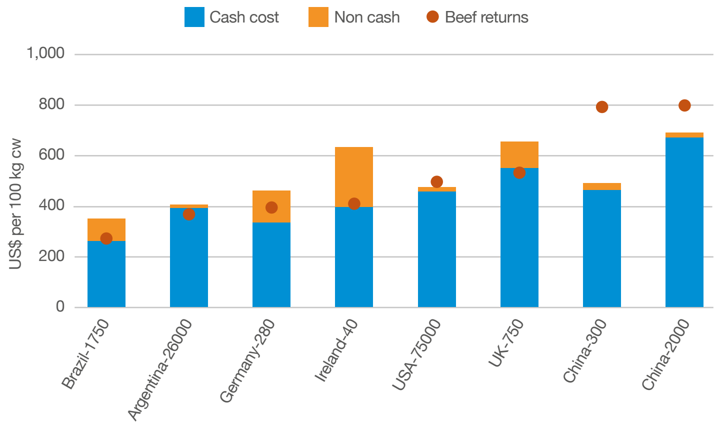


Figure 21. **2015 costs of production of beef finishing in the UK and selected regions in order of beef returns**

Source: AHDB, Agribenchmark

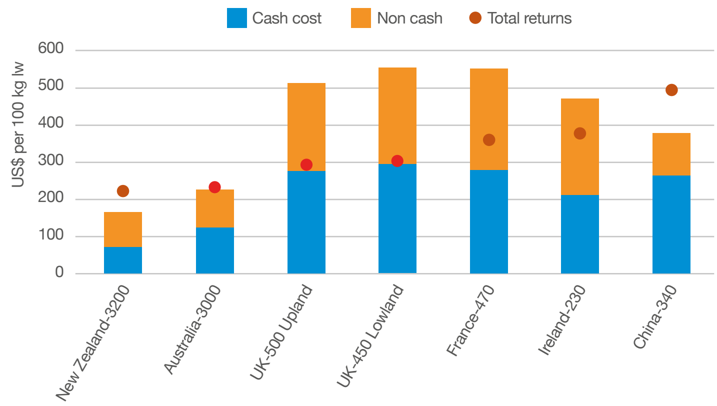


Figure 22. **2015 costs of production for breeding sheep for the UK and selected regions in order of flock returns**

Source: AHDB, Agribenchmark

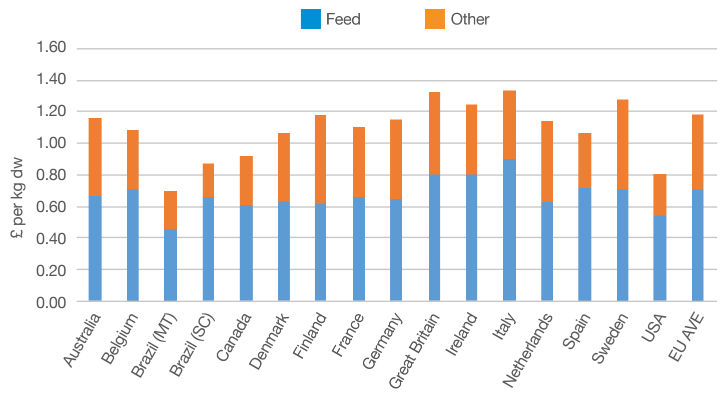


Figure 23. **2015 costs of pig production in GB and selected countries**

Source: AHDB, InterPIG

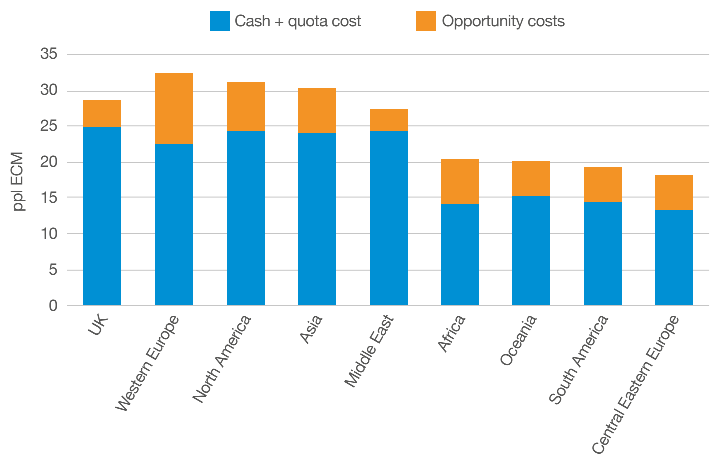


Figure 24. **2015 costs for production for milk in the UK and selected regions**

(Dairy herd cash and quota costs - non-milk returns + opportunity costs)

Source: IFCN, AHDB

In the sheep sector, British breeding production costs are around three times higher for a typical farm compared to Australia and New Zealand and higher than for a typical farm in Ireland. The numbers following the country name represent the number of breeding ewes in a typical flock. Australia and New Zealand have lower costs due to more ewes managed per full-time labour unit and lower costs due to lower requirements for machinery and buildings. Typically, Ireland has smaller farms worked on a part-time basis and with greater reliance on contractors, thus reducing their machinery costs.

In the pig sector (see Figure 22), the UK has some of the highest production costs of any country, including other exporters of the EU. Production costs are some two-thirds higher than for the major exporters of the USA and Brazil. They are also up to 20% higher than those of other exporting countries of northern Europe. In 2015, the costs of production in Great Britain (GB) averaged £1.33 per kg deadweight, compared to the EU average of £1.18, based on the InterPIG results. In the USA, the second largest global exporter, they only amounted to £0.80, and some parts of Brazil were even lower at £0.70. When compared with other EU countries, the main reason is the average lower number of pigs weaned per sow per year in both indoor and outdoor sow systems. The two Brazil examples represent very large herds using home-produced feed in Mato Grosso (MT) and smaller herds (relatively smaller, for Brazil) found in Santa Catarina (SC). The GB cost of production is a combination of sows kept indoors and outdoors. More details can be found in the InterPIG report: **pork.ahdb.org.uk/prices-stats/published-reports/**

Looking at costs of production for milk, GB retains a reasonable competitive advantage with most of its close western European neighbours. The top 5% of GB producers are competitive in global markets when assessed based on cost of milk production. However, there is a large bloc that are not competitive compared with the milk-producing nations in the Southern Hemisphere. For more details please see the AHDB Evidence Report for 2015/16: **dairy.ahdb.org.uk/resources-library/market-information/milkbenchplus/evidence-report-201516**

In summary, the UK is an expensive producer and so reducing costs of production to compete globally is key. The UK may never be able to compete on costs with some of the lowest-cost producers in the world, but there are benefits available in areas, such as freight costs, that can close the gap. It is therefore critically important that the UK look to drive efficiency as much as possible.

The problem of competitiveness can make it difficult for the UK to compete on commodity markets with other exporters. That is not to say though that it cannot compete in the case of some products, such as low-value ones, that are not in high demand within the UK. Also, there are a number of premium markets where price is not necessarily the key criterion.

SCENARIOS

Brexit provides the UK with the opportunity to establish its own approaches to agricultural policy, trade, immigration and regulation. At present there are few details on the approach which will be taken, and many aspects will be the subject to the ongoing negotiations between the UK and EU.

Change is certain, but the impact of this will vary considerably depending on which of the different possible outcomes occurs. This will in turn affect the potential of the red meat and dairy industry to export. AHDB will be publishing a detailed analysis on the impact of different Brexit scenarios on the industry within a Horizon report in the Autumn. Here we outline some of the key issues relating to dairy and red meat.

Direct payments and other public support for agriculture

- There is a heavy reliance on this funding to support farm business incomes in some livestock sectors. The importance of this support varies from around 28% of income on the average specialist pig farms[2], to 40% in dairy and reaches as high as 120% for lowland grazing livestock farms and 156% for upland grazing livestock farms.
- The nature of future farm support under a Domestic Agricultural Policy would be important to ascertain the ability of the industry to drive productivity and competitiveness.

UK/EU trade deal

- Within a previous Horizon report[3] we examined the importance of UK/EU trade across different sectors.
- With the UK signalling an intention to leave the Single Market trade with the EU will no longer be barrier free. Additional customs checks, if nothing else, will increase the costs of trade. Whilst the worst effects may be mitigated if the UK and EU agree a comprehensive free trade agreement – if there is no trade deal UK food and drink exports to the EU (and most likely visa-versa) will be subject to significant tariffs.

Trade agreements with the rest of the world

- Current UK meat and dairy trade with the rest of the world is small, as trade is dominated by the EU.
- The UK currently benefits from preferential access to a number of countries through EU free trade agreements. When we leave the EU we will lose this preferential access, unless the UK government is able to negotiate new deals.

[2] Whilst pig enterprises do not receive direct support through the CAP, pig farms can include arable and other enterprises which do receive support.

[3] **ahdb.org.uk/documents/BrexitAnalysis-Alternatives-08july2016.pdf**

CONCLUSIONS

Whilst much of the commentary on agricultural trade has focused on the current significance of EU markets, this report has highlighted the opportunities to grow meat and dairy exports outside the EU. Those opportunities exist in many areas. They include continued expansion in markets that we already supply, as well as the potential business from opening up new markets. They include opportunities at either end of the scale, whether the focus is on premium products or more on commodities. In addition, there may be opportunities for import substitution.

Export growth, however, will not be achieved overnight. Production cycles for livestock products are typically long. Similarly, there are time implications in overcoming the technical challenges faced by the UK in developing non-EU markets, particularly in those areas like beef and sheep where market access is a current barrier. In some instances, we also need UK companies to invest to help build their capacity for exports. This contrasts with the post-Brexit uncertainty that appears to be deterring capital investment. Giving certainty at the earliest opportunity about future policy will help businesses to plan and prepare.

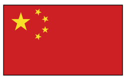
In the long run, much will depend on the final nature of our relationship with the EU, the expediency of completing trade deals, as well farming policy and future support mechanisms. However, leaving the EU should give a new momentum to our exports, generate added significance to exploiting our overseas potential and heighten the focus on our global competitiveness. Throughout this report, we have raised a number of factors that will influence our ability to seize the export opportunities. Collectively, these form a foundation for export success and are presented below as nine key building blocks that we believe are essential for the future growth of our meat and dairy sectors.

Building Block	Rationale
1. Understand our costs of production	Displacing imports and selling product overseas means competing against global producers. Having a firm grasp of our production costs and understanding whether we can compete is essential. Tools such as Farmbench can help benchmark production against others helping to drive production and reduce costs. In addition, knowing our cost base and benchmarking are not only key for farmers, but also for processors to enable a competitive supply chain.
2. Know our niches	In some sectors, the UK will never be a low cost producer compared with other major global exporters. However, the UK story in relation to quality, food safety, authenticity, provenance and welfare can be promoted to position and sell our products. This can mean value-added sales in high-end food service in cities such as New York and Hong Kong, but it may mean a look at our processing capability eg the UK produces minimal WMP and whey powder but there look to be opportunities if this barrier was addressed.
3. Understand the consumer and routes to market	Researching and understanding overseas markets and consumers is critical to export trade development. Product needs in overseas markets may be very different from the UK. This is not only applicable for processed goods but also for carcase and product specifications. This may therefore have knock-on implications for producers. Gaining an understanding of supply chains, sales channels and purchasing drivers is also key. These may be quite different depending upon the country and product.
4. Maximise our value	UK exports of meat and dairy are part-processed by definition, but getting the most from trade opportunities means developing a broad product portfolio and maximising the price for each product. In other words, send products and not carcases. Products that are judged as low-value in the UK, such as pigs' trotters may be viewed as premium products in other markets. Understanding which products command the best prices in which markets, has been successfully exploited by competitor countries, such as Denmark for pig meat.

Building Block	Rationale
5. Develop a company export focus	A long term focus is needed in order to build market share and reputation. This might mean challenging our mindset, ensuring that we plan for proactive exports rather than take an opportunistic view when “the price is right.” Building export shares needs dedication and requires time and investment as shown by competitor countries, such as Denmark in the case of pig meat. It also means being flexible, with the UK’s competitors more ‘fleet of foot’ in international markets. For example, flexibility in production may be required by dairy processors so product manufacture can easily be switched to respond to export demand and changing market returns.
6. Evaluate the potential for displacing imported product	If export opportunities look to be challenging and the UK imposes WTO tariff barriers, then there is an opportunity to focus on the domestic market and displacing imported product from competitor countries such as New Zealand and Ireland. Imported product could be significantly more expensive if the UK imposes tariffs to match the EU. There is scope for import displacement to varying degrees, although issues like carcase balance and seasonality of production would need careful consideration.
7. Gaining access to new markets	Concentrate effort on market access to ensure continued access to markets post-Brexit and also open key markets, particularly for beef and sheep meat, which are hampered by this issue. However, the time taken and resources required to reach agreement should not be underestimated and it is important the UK recognises this. The time and resource required to build market share is also lengthy. There is potentially much work to be done to find alternative markets but AHDB is in a position to support the UK government with market access/entry. If the UK is outside the Single Market and Customs Union then it should focus on trade deals with countries that look good prospects for UK agriculture, which will enable the UK to better compete with competitor countries, such as Australia. Competitors like Australia and New Zealand have already established FTAs with many of the key markets that look attractive to the UK. Brexit might enable agreements to be speeded up given slow progress made by the EU compared with other major exporters. However, depending upon the nature of trade deals agreed by the UK government, imports of beef, lamb and dairy could increase if barriers are lowered. For example, a trade deal with Australia could lead to relaxing of UK import tariffs leading to further imports of beef and lamb, putting UK producers under further pressure.
8. Resourcing export certification and support	Export certification demands are likely to increase substantially given that they may be required for EU countries as well. This is likely to need considerably more resources to prevent the process slowing down. Government resourcing is needed to develop this. This gives scope to further develop electronic systems to support a more efficient certification process.
9. Advocacy and promotion	Continuing to promote the UK brand through the Great British Food Unit is essential. In addition, Ministerial visits and advocacy to promote trade overseas and a proactive programme of inward visits from the regulatory authorities in key overseas markets ensures raised awareness of UK meat and dairy production and build confidence.

APPENDIX 1 – COUNTRY PROFILES

These country profiles outline the prospects for commodities in key markets identified by AHDB. Ten-year projections from the OECD-FAO Agricultural Outlook 2017-2026, published in Summer 2017, have been used where possible to show growth prospects. A growth rate of up to 19% (CAGR of 1.8%) for imports over the 10-year period from 2016 to 2026 is classed as Low, 20% to 49% (CAGR 1.8%–4.1%) as Medium, and 50%+ (4.1%+) as High. Where no projections are available, AHDB has made projections based upon historic trade data. Latest trade data available is shown at the time of publication. In addition, data from the International Monetary Fund's (IMF) April 2017 *World Economic Outlook* have been used to give an assessment of future economic development to 2022.



Greater China

Background

This a massive market, with 1.4bn consumers and strong economic growth, which in turn is resulting in increased purchasing power. At the same time, the move to urban areas and increasing number of middle-income consumers is creating additional consumer demand, which in turn is being satisfied by the growth in modern retailing.

At present, it is very much a commodity import market for the majority of meat and dairy products imported, although there is undoubtedly scope for increased trade that focuses on more premium products. This includes emphasis on provenance, quality, and health (from both a nutritional and a pollutant-free perspective). Such preferences especially apply to the middle-income, younger urban consumers, who are also more adventurous in their tastes. However, there are considerable regional cultural variations, requiring a sophisticated market-segmentation approach to identifying and developing opportunities. "British" can be a strong marketing tool, given the trust that Chinese consumers have in British products. Consumer spending on food is expected to continue to grow strongly, by up to 10% per annum. Both meat and dairy products are forecast by BMI Research to show strong growth, at 10% and 11% per annum, respectively, to 2021.

Forecasts of import requirements into Mainland China, such as the OECD-FAO projections, have tended to underestimate the growth in trade. In its projections to 2026, the OECD-FAO see a sharp reduction in pig meat imports, modest growth for beef and sheep meat, and stronger growth in dairy products. Yet at a recent international conference the China Meat Association stated that the meat production deficit would amount to 10m tonnes by 2020 (compared to 3.75m tonnes in 2015). So it remains difficult to assess future meat import requirements and the ability of the domestic industry to satisfy the expected further increase in consumption. Meat imports, for example, could even be constrained by the lack of export availability. In the second table on page 26, the analysis, which takes account of recent historical developments, takes a more optimistic view than the latest OECD-FAO projections do of future import levels.

The EU does not have an FTA with China and both parties are currently looking to develop an investment agreement ahead of any FTA. However, competitors such as Australia and New Zealand have already concluded free trade agreements, giving general preferential access to the Chinese market. Those countries do, however, still face many of the same challenges to overcoming regulatory barriers.

China

Measure	2015	2022	CAGR % change
Population (m)	1,374.62	1,432.26	0.6%
GDP at current prices ($bn)	11,226.19	17,706.63	6.7%
GDP per capita ($) at current prices	8,167	12,3623	6.1%
GDP per capita ($) PPP	14,328	23,960	7.6%
Real GDP growth rate (%)	6.9	5.7	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	580	High	Brazil (30%) Uruguay (27%)
Pork	1,620	High	Germany (21%) Spain (16%)
Sheep meat	220	High	New Zealand (62%) Australia (36%)
Red meat offal	1,359	High	USA (31%) Germany (16%)
Cheese	97	High	New Zealand (53%) Australia (21%)
Butter	82	Medium	New Zealand (86%) France (5%)
Milk powders (SMP/ WMP other)	604	Medium	New Zealand (83%) Australia (4%)
Whey powder E	405	Low	

N.B: For meat, changes to 2026 are based on 2010-2016 trends in import volumes, not OECD-FAO projections

Source: China Customs / IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder ; E = estimate

The situation on the Chinese mainland contrasts with a slowdown in demand in the food sector in Hong Kong, where opportunities are already more developed for premium products, especially convenience foods, including those containing meat and dairy products. For the food service sector, tourism is an important feature of the economy. It should not be forgotten that Hong Kong remains very import-dependent.

Hong Kong

Measure	2015	2022	CAGR % change
Population (m)	7.31	7.72	0.8%
GDP at current prices ($bn)	309.40	399.17	3.7%
GDP per capita ($) at current prices	42,328	51,706	2.9%
GDP per capita ($) PPP	56,907	74,478	3.9%
Real GDP growth rate (%)	2.37	3.15	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	359	High	Brazil (55%) USA (27%)
Pork	343	Medium	Brazil (36%) USA (16%)
Sheep meat	5	Low	Australia and New Zealand (65%)
Red meat offal	773	No change	Brazil (27%) USA (18%)
Cheese	16	Low	New Zealand, Australia, and USA (61%)
Butter	11	High	Australia, USA, and EU (91%)
Milk powders (SMP/ WMP other)	95	High	Netherlands (42%)

N.B: Treat data and changes to 2026 with extreme caution, as product is being re-exported to China. Also there are no OECD projections for Hong Kong. SMP = skimmed milk powder; WMP = whole milk powder.

Source: Hong Kong Census & Statistics Department / IHS Maritime & Trade-Global Trade Atlas®, Trade Map, AHDB; SMP = skimmed milk powder; WMP = whole milk powder

Beef

The OECD-FAO, in its 2017 report, projects for Mainland China for high growth in imports of bovine meat and offal. Demand for imported beef, including premium cuts, is forecast to grow among the wealthier consumers, who are prepared to pay more for high-end product for the perceived food safety and superior taste. Availability of beef and beef products to Chinese consumers has been greatly improved by improving supply chain logistics from farm to retail, particularly in terms of increased cold chain capacity. Per capita consumption is small at 4.0 kg per head, but is forecast by OECD-FAO to increase 18% to 2026.

China's beef market is very competitive and import demand very price-sensitive, although more so at the commodity than the premium end of the market. Beef makes up a significant proportion of protein for meals eaten out. Despite the strong forecast, consumer research shows Chinese are likely to moderate red meat intake and stay healthy by eating in moderation.

Trade is currently dominated by Brazil, Uruguay, and Australia. Applied tariffs for fresh and frozen beef under Most Favoured Nation (MFN) status are 14.7% for fresh, 16.3% for frozen, and 12% for bovine offal. Australia will increasingly benefit from reduced tariffs which will drop to zero in 2025 under the ChAFTA agreement. Trigger levels are in place to 2024 to restrict shipments from Australia, where additional customs duties will apply. The UK has been working to gain access, as good opportunities exist for lower-value cuts and offal, but also some smaller opportunities for high-end product. China lifted the longstanding BSE based ban on US beef imports in September 2016 and USA has now begun shipping product as of June 2017.

Hong Kong is currently the most successful non-EU market for the UK for both beef and bovine offal and is projected to offer continued growth for lower value cuts and offal and also high value cuts. No tariffs are in place and the market has to-date been dominated by Brazil and the US.

Sheep meat
Imports into Mainland China have increased sharply in recent years, and further (but more modest) growth is projected. Currently, imports are predominantly from New Zealand and Australia (combined 98% share). However, New Zealand has an FTA with China and so no tariffs apply. Australia has also recently negotiated an FTA with China and so tariffs are being reduced (to zero by 2025) during the transition period. Otherwise the MFN tariff averages 17%.

This market is the main target for the UK sheep meat industry. It has huge volume potential both for offal and for bone in fresh and frozen. However, without an FTA these exports would be subject to MFN tariffs.

In China, sheep meat is traditionally consumed very thinly in "hot pots" (Chinese fondue), or spicy skewers. These are types of dishes that accommodate relatively fatty pieces (including breasts) very well and where mutton, which is stronger in flavour, is preferred. The slowdown of the Chinese economy in recent years also tends to refocus purchases on the cheaper cuts. China's demand for imports is focused mainly on low value-added cuts, mainly with bone (97%). These purchases are almost exclusively in frozen form. China is expected to remain a key market in the future, and the New Zealand and Australian exporters are already hard at work to build special relationships sustainable with Chinese counterparts.

Pig meat
This has emerged in recent years as a massive import market of both pork and pig offal, led by the mainland. Trade is dominated by the EU, followed by North America. Not only that, but volumes have continued to exceed previous expectations, including a doubling of pork shipments in 2016. Currently, there are major structural changes taking place in the Chinese pig sector, with farms being shut down in some areas because of environmental issues, including being too close to urban areas. These are not yet being fully offset by establishment of new large-scale units in less populated areas. Pork is still very much the preferred meat, and the China Meat Association forecasts would suggest the current production deficit will grow still further. In 2016, a total of 2.0m tonnes of pork was imported into Greater China; in reality, the actual total is probably below 1.9m tonnes, as Hong Kong re-exports some of its pork, both to China and outside it. Whatever the projections, the outlook for pig meat imports seems positive, at least in the medium term (up to five years).

Import statistics show that the UK supplied 47,000 tonnes of frozen pork to Greater China in 2016 , with the mainland accounting for 90% of the total. And yet the UK has only been supplying the mainland since 2012, such has been the surge in trade. Its import market share is only a little over 2%. Greater China is now the largest market for UK exporters, accounting for 25% of its total trade and as much as 70% of its trade with non-EU markets. As of August 2017, seven new UK businesses have been approved to export pork to China, including three that can now export trotters. It has been estimated these new developments could be worth as much as £200m per annum to the UK industry.

The UK also supplies pig offal, and trade amounted to 48,000 tonnes in 2016 with a 60:40 split in favour of the mainland and giving it a share of just under 3%.

The Greater China market is almost entirely for very low valued frozen cuts for further processing, which have a very limited market elsewhere. However, the UK might well be in a position to supply premium pork, especially with high provenance, given both food safety concerns covering domestic product and the good reputation that "British" products have among Chinese consumers.

For the UK, market access for some cuts remains an issue for specifically supplying the mainland, unlike Hong Kong. MFN import tariffs for China are 15% on frozen pork (chilled is 20%), and for frozen offal it is 12%. There are no import tariffs on similar products consigned to Hong Kong.

Dairy products
Mainland China is projected to experience a large growth in imports of dairy products in the next ten years. The largest growth seems likely to be in cheese, possibly up to a doubling of trade but also up to 50% and even higher for butter and milk powders. Given food safety concerns of Chinese consumers and increased demand for western dairy products, the demand for imported dairy products from trusted markets remains key. Growth is particularly strong in younger age groups due to an increasingly westernised diet combined with increased parental interest in the nutritional benefits of dairy. China already has the largest dairy trade deficit of any country in the world. Imports are also benefiting from Chinese consumers becoming more westernised, coupled with strong growth in sales through supermarket chains and convenience stores and improved cold chain security.

The challenge for UK manufacturers will be ensuring that the product is right for the Chinese consumer. Previously, the UK failed to take advantage of rapid growth in Chinese demand for product such as infant milk formula, because of a lack of capability to produce. Exports of cheese from the UK to China grew by 1000% from 2015, although starting from a low base to reach £2m. Milk powder was the UK's second largest food export to China in 2016, at £50m and over 5,000 tonnes. Similarly for whey powder, cheese manufacturers in the UK have switched attention to other whey derivatives such as whey protein concentrate and whey protein isolate, meaning whey powder production in the UK is limited. Anyone looking to access the Chinese market for the first time will need a certain level of understanding of the Chinese consumer and a desire to produce products that are Chinese-focused.

Entry to China is not easy or quick; there are stringent rules and health certification and rules may change with little warning, although these have not created any particular difficulties so far. Recent changes to certification means all dairy factories looking to export to China now require registration, although the registration process has been smooth as no inspections are needed.

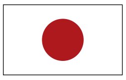
China presents a good opportunity for UK dairy to take advantage of a growing demand for top-class product. However, in order to be successful, the UK will need to compete with all the main dairy exporting nations, including New Zealand, who see China as a key market for their products. New Zealand continue to dominate Chinese dairy imports, with more than 80% of milk powders and butter and half of the imported cheese coming from this country.

In the case of Hong Kong, the average consumer is relatively wealthy and the territory itself is a mature market with links to the UK and very few barriers to importing food and drink products. This has been enhanced by recent food scandals across the region, increasing the focus on identifying quality, safe, and reliable foods. Import demand is expected to grow in future, but only to a limited extent.

New Zealand is the main supplier of cheese into the territory, with more than half of the total. For premium cheese, there is a strong bias for French and Italian cheese, due to heavy promotion by these countries. UK exports of cheese to Hong Kong were 440 tonnes in 2016, which was slightly down from the previous year. Only 20% of this was Cheddar. The UK milk powder trade to Hong Kong is also currently limited, with a mix of SMP and WMP, but with neither product at any significant volume. Despite the current lack of trade with Hong Kong, there does appear to be an opportunity for the UK to access the market, particularly with premium cheeses.

Opportunities for the UK

Given the ongoing increasing import demand, there is scope for the UK to supply a wide range of products. While commodity trade would dominate, there are clearly prospects for supplying increased volumes of premium products, helped by trust in "British" products. The best prospects will continue to be for pork, but there are also opportunities for a wide range of dairy products, especially premium cheeses, but competitiveness and access to market will be very much the key. Leaving the EU will not affect the tariffs the UK currently pays in order to access China. There is continued interest from major Chinese dairy players in export-driven joint ventures or other inward investment into British dairy companies that could help to build export capacity and forge strong links into the Chinese market.



Japan

Background

Japan is the largest net importer of agri-food products worldwide, as the country has a shortage of arable land. In addition, Japan's food-and-drink market is one of the largest globally, with high per capita spending and consumption levels. However, growth is forecast to be sluggish over the coming years, due to ongoing weak economic growth and a declining population.

Japanese lifestyles are busy, creating a large and expanding market for convenience foods and stores and online shopping. The Japanese are among the most health-conscious consumers globally and food safety and traceability is important. Japanese consumers tend to be willing to accept high prices in exchange for quality and convenience. Research from Lincoln University, New Zealand found that animal health and welfare is of lesser importance in Japan than in other Asian markets. Total growth in meat and dairy consumption, like that for food in general, is low in this mature market and forecast at 2% for dairy and less than 1% per annum for meat in the period to 2021.

Weaknesses include high import duties, complicated laws, and preference for domestic product. Japan's dairy and meat industries are heavily regulated, with a complex network of WTO quotas and domestic laws controlling all aspects of production and importation.

The EU has been negotiating an FTA with Japan since March 2013 and it has been reported in July that agreement has been reached in principle. The agreement will eliminate or sharply reduce duties on agricultural products in which the EU has a major export interest, such as pork, the EU's main agricultural export to Japan, ensuring duty-free trade with processed pork meat and almost duty-free trade for fresh pork meat exports. The 4.3% ad valorem duty for high-value cuts will be phased out over 10 years. The specific duty for low-value cuts will be reduced from 482 yen per kg (€3.82 per kg) to just 50 yen per kg (€0.40 per kg) within 10 years. The Japanese pig meat sector will be safeguarded during the liberalisation phase, by means of volume-based safeguard clauses applying to high-value meat (pork prices above 399 yen per kg) and low-value meat (pork prices below 399 yen per kg). Tariffs on beef will be cut from 38.5% down to 9% over 15 years for a significant volume of beef products. High duties on many hard cheeses such as Cheddar (which currently stands at 29.8%) will be eliminated.

Market access for agricultural products is included in the negotiations. The USA was also in the process of obtaining its own deal through the TPP until the new Trump administration withdrew. This could give EU product a competitive advantage unless the US agrees to a bilateral deal. Canada is also pushing for an FTA with Japan, but negotiations have been put on hold due to the TPP discussions.

Measure	2015	2022	CAGR % change
Population (m)	126.98	123.83	-0.4%
GDP at current prices ($bn)	4,382.42	5,368.19	2.9%
GDP per capita ($) at current prices	34,513	43,351	3.3%
GDP per capita ($) PPP	40,312	50,075	3.1%
Real GDP growth rate (%)	1.2	0.6	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	503	Low	Australia (54%) USA (38%)
Pork	861	Negative	EU (36%) USA (31%) Canada (21%)
Sheep meat	20	Negative	Australia (68%) New Zealand (32%)
Red meat offal	85	High	USA (57%) Australia (20%)
Cheese	249	No change	Australia (34%), New Zealand (24%)
Butter	13	Negative	New Zealand (48%) Netherlands (25%)
Milk powders (SMP/ WMP other)	34	Negative	New Zealand (61%) USA (11%)
Whey powder E	61	Low	

Source: Japan Ministry of Finance / IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder, E = estimate

Beef

Within Japan, beef is secondary to other proteins, but consumption remains steady and is projected to increase marginally to 2026 despite a declining population. Trade is dominated by the USA and Australia. Tariffs under MFN average 38.5% for chilled and frozen beef and typically 12.8% for bovine offal. While the USA has no FTA with Japan, Australian product will benefit from tariff reduction for fresh product to 23.5% by 2029 and 19.5% for frozen to 2021 under the Japanese Australia Economic Partnership. Trigger levels are in place for Australian product where further imports would be subject to 38.5% tariff. Canada is also active in supplying the Japanese market, although its small share hasn't increased in recent years.

At present the UK is working towards market access and some small opportunities would exist for high-value cuts, some offal (internal organs), and lower-value cuts. Imported product does not compete directly with domestically produced beef and steaks, and leaner cuts are becoming popular amongst younger consumers. More retailers are selling thick-cut steaks and other cuts that can be enjoyed by barbecuing or grilling. Supermarkets are the most common outlets for consumers to purchase beef.

Sheep meat

OECD-FAO data has sheep meat imports for Japan in decline between 2016 and 2026; 99% of imports are from New Zealand and Australia. There is, therefore, very little scope to export to this market.

Pig meat

Japan is the second largest global pork importer (excluding EU member states) after China and trade has shown slow but steady growth, although the recent OECD-FAO projection is for a fall in imports from 2016 to 2026. Pork is the preferred meat in Japan. As a bloc, the EU is the largest supplier, led by Denmark and Spain, with a market share of around 36%, followed by North America. Both chilled (for the fresh market) and frozen (for further processing) are imported in large quantities, with the latter accounting for around 60% of the total. The EU mainly supplies frozen whereas geographical proximity enables North America to supply chilled as well, which is the main growth area. There is also a small import requirement for pig offal.

Japan has a very complicated import system, with tariffs and a "gate system." In order to minimise import duty, countries supply a mixture of cuts, including high-value ones, in order to boost the average import price, which in turn reduces the import tariff. However, this works against the UK, as high-value cuts (such as loins and middles) are also in high demand in the UK. Japanese import data indicates there were no imports from the UK in 2016 although UK export data indicates a figure of 1,400 tonnes plus smaller volumes of pig offal, suggesting that product is being re-exported through other member states. However, there could be some scope for the UK to supply high-value frozen cuts both for processing and food service, but competition would be considerable and trade flows likely to remain limited.

Dairy products

The latest OECD-FAO projection is for no increase in Japanese cheese imports between 2016 and 2026, with butter and powder imports in decline to 2026. Japanese dairy imports are dominated by New Zealand, with 90% share of milk powder imports and 60% share of butter. Cheese imports come from a number of sources, including New Zealand, Australia, and the USA. Dairy tariffs, at 5% to 11%, are relatively low and therefore should not be seen as a trade barrier. However, Japan does have trade agreements in place with some of the key dairy exporting nations, including Australia, and has signed a deal in principle with the EU. Japan is seen as Australia's most important dairy export market.

UK exports of butter to Japan have increased five-fold over the last year, albeit from a very small base. Cheese exports to Japan have been in decline over the last three years, and milk powder sales dropped to zero in 2016, after having shown some growth potential in previous years.

Japan regulates its import volumes through the Pooled Quota system, which can make market access difficult.

The Japanese consumer is relatively affluent and willing to spend a significant proportion of his/her income on food. Life expectancy in Japan is long but birth rates are low, making for a different dynamic in dairy product demand. Infant milk formula demand is in decline due to the low birth rate, while the older generation are looking for health-promoting nutritional foods that are high in protein and calcium. The probiotics market is also showing strong growth.

In order to take advantage of the Japanese consumers' willingness to spend, UK manufacturers will need to deliver products that align with the growth in health and wellness.

Opportunities for the UK
Premium dairy products covering health and wellness should be the target for the UK. If the UK could gain market access for beef, then some opportunities for both high-value beef and offal could arise. Limited further opportunities for high-value, frozen cuts could be pursued, but competition would be intense. The UK leaving the EU would mean that the UK would lose access to the EU-Japan FTA, placing it at a disadvantage versus its EU competitors for the pork, beef, and cheese markets.

Philippines

Background
The Philippines is the largest food and drink market in Southeast Asia. BMI Research in 2017, has forecast food consumption growth of over 9% per annum to 2021, with meat and dairy even higher at circa 10%. This growth is a result of increased consumer spending capacity, continued growth of the middle class segment, increased tourism, and a positive outlook for economic growth.

Modern retail markets, such as supermarkets, hypermarkets, and convenience stores, have become more essential, especially to those living in Manila and other large cities, as customers demand more convenience and flexibility. The opening and expansion of retail markets provides more opportunity for expansion of imported food. However, traditional outlets still account for around 75% of food retail sales, and underdeveloped distribution infrastructure and bureaucracy continue to make supplying retail outlets inefficient and often costly.

Food quality and safety are key considerations here and trends towards convenience and health are developing. Philippine food regulations and standards generally follow the US Food and Drug Administration.

Measure	2015	2022	CAGR % change
Population (m)	102.15	117.34	2.0%
GDP at current prices ($bn)	292.45	579.30	10.3%
GDP per capita ($) at current prices	2,863	4,937	8.1%
GDP per capita ($) PPP	7,282	11,659	7.0%
Real GDP growth rate (%)	5.9	7.0	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	115	High	India (35%) Australia (26%)
Pork	78	Medium	Germany (29%) Canada (26%) France (15%)
Sheep meat	<1	High	Australia (85%) New Zealand (10%)
Red meat offal	162	High	Germany (22%) Spain (22%)
Cheese	23	Medium	New Zealand (46%) Australia (16%)
Butter	30	Medium	New Zealand (91%) France (2%)
Milk powders (SMP/ WMP other)	207	Medium	USA (40%) New Zealand (27%)
Whey powder E	399	Medium	

Source: Philippine Statistics Authority / IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder; E = estimate

Beef
The Philippines is a small but growing market for frozen manufacturing beef and offal and has volume potential. However, at present the UK doesn't have market access. Indian buffalo meat is the main supply source, followed by Australia. The MFN tariff is 10%, but India

exports buffalo meat under a 5% tariff while Australian beef enters the Philippine market duty free under the ASEAN-Australia-New Zealand (ASEAN-ANZ) FTA. Beef offal import tariffs under MFN are currently 5% to 7%. As of August 2017, the UK has gained access to the Philippines for beef, which is estimated to be worth £34m over the next 5 years. Defra and AHDB worked with United Kingdom Export Certification Partnership, the Animal and Plant Health Agency (APHA), the Department of Agriculture, Environment and Rural Affairs in Northern Ireland, the Food Standards Agency, the Scottish and Welsh governments and the other UK levy boards to secure the deal. The Republic of Ireland has had access since 2014 and currently exported around 7,000 tonnes of beef and a similar quantity of bovine offal.

Pig meat

The Philippines has a growing import requirement and in 2016 pork shipments, all of which were frozen, amounted to 78,000 tonnes, up over 25% from a year earlier. The EU has the largest market share, 60%, followed by Canada at 25%. Product is mainly for further processing, but some imported product is sold through the wet market. The import market is even larger for pig offal, all of which are frozen, which amounted to 159,000 tonnes in 2016, up nearly 25% from a year earlier. Trade is dominated by the EU, with a market share of almost 80%.

The UK has been able to obtain a small share of the pork market and its shipments in 2016 amounted to almost 1,500 tonnes, nearly four times the level of a year earlier based on Philippine trade statistics. The UK has been able to obtain an even larger share of the pig offal market, shipping as much as 6,200 tonnes in 2016, up 40% from a year earlier. Long-term prospects look favourable for both pork and pig offal, with further import growth expected, but the UK is in strong competition with other EU countries, notably Germany.

Pork imports are subject to a tariff quota of 54,000 tonnes with a tariff rate of 30%. Out of quota, the MFN tariff is 40%. For frozen offal the MFN import tariff is 5% for livers and 10%for others; for chilled offal it is 7%.

Dairy products

The Philippines is a small but growing market for UK dairy. Tariffs are low at typically 4% for butter and cheese and 1% for powder. UK cheese sales to the Philippines tripled between 2015 and 2016, with the majority of sales of cheese being Cheddar. The UK also sells SMP to the country, with sales increasing to more than 1k tonnes in 2016.

The OECD-FAO projection for 2016 to 2026 is for further growth in dairy imports for the Philippines. At present the majority of dairy imports are satisfied by New Zealand, with the US also exporting milk powders. New Zealand has tariff-free access for powders, which will extend to butter and cheese by 2019 while the UK pays 5%.

Opportunities for the UK

There is potential for bulk cheese and milk powders. Long-term prospects for pork and pig offal look favourable. The Philippines could also offer good opportunities for frozen manufacturing beef as well as offal now that the UK has access. Brexit is therefore unlikely to have any impact on the UK's existing trading relationship with the Philippines.

India

Background

India remains one of the fastest growing emerging market economies. The Indian government has made significant progress on important economic reforms, which will support strong and sustainable growth going forward. The middle class population, estimated at around 50m, is likely to increase steadily to 2020 before accelerating to 2030. The erosion of traditional culinary habits and the acceleration of consumer lifestyles, underpinned by ongoing urbanisation, is leading to a decrease in the time spent cooking at home in India, particularly amongst younger consumers. As a result, there is a growing demand for convenient, packaged, processed meat. However, with vegetarian diets supported by strong cultural and religious traditions, India has the lowest level of meat consumption in the world. Consumers are increasingly attracted to the purported health benefits of a vegetarian diet.

Cheese saw continued growth in 2016 due to lifestyle changes, especially among middle-income consumers and the influence of various consumer food-service types. The main factors contributing to growth were increased product availability and rising levels of disposable income among consumers. Yoghurt sales experienced strong growth in 2016, according to Euromonitor. Consumers in smaller cities are shifting from unpackaged or local dairy yoghurt to packaged yoghurt, due to the latter product's greater hygienic benefits.

Measure	2015	2022	CAGR % change
Population (m)	1,292.34	1,416.16	1.3%
GDP at current prices ($bn)	2,088.16	3,935.27	9.5%
GDP per capita ($) at current prices	1,616	2,779	8.1%
GDP per capita ($) PPP	6,193	10,893	8.4%
Real GDP growth rate (%)	7.9	8.2	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Pork	<1	High	Belgium (68%) UK (13%)
Sheep meat	<1	Negative	New Zealand (52% Australia (28%)
Cheese	2	Medium	Denmark (25% Italy (21%)
Butter	<4	Negative	Uganda (47%) New Zealand (40%)
Milk powders (SMP/ WMP other)	<1	No change	Saudi Arabia (20%) Sweden (17%)
Whey powder E	77	Medium	

Note: No offal trade recorded; SMP = skimmed milk powder; WMP = whole milk powder; E = estimate

Source: India Ministry of Commerce / IHS Maritime & Trade-Global Trade Atlas®,Trade Map, OECD-FAO, AHDB

Sheep meat
OECD-FAO projections have Indian sheep meat imports declining from 2016 to 2026, although only a very limited quantity is imported. Current imports come from New Zealand (62%) and Australia (37%). However, there is a little potential for the UK to export sheep meat to India for either offal or for higher value cuts.

Pig meat
India has no history of importing pig meat and consumption is low because of religious and cultural preferences. Prospects for the UK to supply this market must be seen as both uncertain and long-term, although we did supply 35 tonnes in 2016, according to Indian trade statistics. The UK could also take advantage of its good image among Indian consumers and possibly supply up-market retailers and food-service establishments with small volumes, including processed products. Otherwise it would be lower-value cuts and pig offal. The MFN import duty on pork is 30%.

Dairy products
Rapidly increasing population growth and expected increases in affluence bring opportunities for the UK dairy industry to access the growing demands from Indian consumers. However, the OECD-FAO projection to 2026 is for little change to dairy imports, with the exception of whey. Access to the market is currently limited somewhat by tariffs of 30% on most dairy products, rising to 60% for certain milk powders.

Despite the expected increase in butter imports and the UK's ability to produce butter oils such as butter ghee, there were no sales of butter or butter-type products from the UK to India in the three years 2014 to 2016. UK cheese exports to India did rise in 2016, but are still only at around 170 tonnes per year, all Cheddar. SMP sales to India are sporadic and small, and there were no WMP sales.

The Indian government continues to have a desire for domestically produced product, but in reality this is unlikely to keep up with the growing demand from its rapidly increasing population. India therefore holds potential for the UK dairy industry, although supply chain efficiency and cost of product will be key factors if significant volumes are to be traded.

Opportunities for the UK
Some small opportunities may exist for high-end sheep cuts and offal. Some long-term opportunities may exist for pork. For dairy this will likely be restricted to low-value dairy commodities. Leaving the EU should not adversely affect the UK's trading situation with India.

Thailand

Background
Thailand's positive tourism outlook and the increasing affluence of Thai households will drive sales value growth across the forecast period. Growth in the mass grocery retail sector will pick up. Thailand benefits from high tourism levels, which fuel sales of processed foods in particular. Rising incomes and steady urbanisation have bolstered demand for higher-value processed foods. Consumers remain price-sensitive, inhibiting premiumisation of sub-sectors. There is strong interest in value-added products among middle- and upper-income groups, particularly products that address current trends such as health and hygiene and a preference for local flavourings. Thailand has a sizeable middle class that is becoming brand-conscious, driving value growth in the industry. Meat and dairy sales are forecast by BMI Research to rise by 7% and 8%, respectively, in their forecast period to 2020.

Measure	2015	2022	CAGR % change
Population (m)	68.84	69.35	0.1%
GDP at current prices ($bn)	399.22	519.05	3.8%
GDP per capita ($) at current prices	5,799	7,485	3.7%
GDP per capita ($) PPP	16,180	22,910	5.1%
Real GDP growth rate (%)	2.9	3.0	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	9	Low	Australia (42%) New Zealand (22%)
Pork	<1	Negative	Hong Kong (50%) Russia (31%)
Sheep meat	2	Low	New Zealand (54%) Australia (43%)
Red meat offal	61	High	Germany (30%) Argentina (12%)
Cheese	15	Medium	New Zealand (35%) Australia (26%)
Butter	13	Low	New Zealand (60%) Australia (27%)
Milk powders (SMP/ WMP other)	106	Low	New Zealand (67%) Australia (9%)
Whey powder E	810	Medium	

Source: Thai Customs Department / IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder; E = estimate

Beef

The UK has market access, but quantities of beef shipped have been negligible due to its high price, with only 78 tonnes of beef and 377 tonnes of offal shipped in 2016. Opportunities for UK beef would likely be limited to low-value cuts and offal. Thailand has a tariff of 50% for beef imports under MFN, although the USA benefits from a reduced rate of 13.3% under the Transatlantic Free Trade Agreement and this will be eliminated. New Zealand sends 2,000 tonnes, of which 897 is eligible for a tariff of just 8%. Bovine offal have a tariff of 30% under MFN.

Pig meat

Thailand is not a pork importer, but it does import pig offal and trade amounted to 41,000 tonnes in 2016 almost entirely in the hands of EU exporters, led by Germany. However, the UK does not have market access to Thailand but a limited trade in frozen offal might emerge if access could be secured. The MFN import tariff on frozen pig offal is 30%. Negotiations on an EU-Thailand FTA were launched in March 2013, but these were suspended in May 2014 with the military takeover.

Dairy products

In 2016 UK cheese exports to Thailand increased ten-fold, although the majority of this cheese is not Cheddar. Australia and New Zealand have preferential access, with tariffs of 30% for cheese being reduced to zero by 2020. Milk powder sales were immaterial, and at present Thailand is not seen as a significant export opportunity for the UK dairy industry.

Opportunities for the UK

Opportunities for supplying low-value cheeses are limited. Whey powder shows growth, but at present the UK produces only limited amounts. The UK has access for beef, but has struggled to compete against cheaper imports.

South Korea

Background

South Korea is a high-income country with a rapidly growing economy. South Korea over the past four decades has demonstrated incredible economic growth and global integration to become a high-tech industrialised economy. The country is very dependent upon imports for beef and pig meat. Australia and the US dominate the beef trade, but Germany and Spain are significant for pig meat.

Measure	2015	2022	CAGR % change
Population (m)	51.02	52.51	0.4%
GDP at current prices ($bn)	1382.76	1829.01	4.1%
GDP per capita ($) at current prices	27,105	34,832	3.6%
GDP per capita ($) PPP	36,390	49,772	4.6%
Real GDP growth rate (%)	2.8	3.1	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	366	Low	Australia (49%) USA (43%)
Pork	465	Low	USA (30%) Germany (19%) Spain (15%)
Sheep meat	11	Low	Australia (95%) New Zealand (5%)
Red meat offal	55	Low	Australia (34%) USA (33%)
Cheese	10	Medium	USA (36%) New Zealand (15%)
Butter	9	Medium	New Zealand (38%) Australia (24%)
Milk powders (SMP/ WMP other)	24	Negative	USA (25%) Australia (23%)

Source: Korea Customs and Trade Development Institution / IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef
At present the UK has no market access to South Korea for beef, but some small opportunities could exist for high-value beef cuts and offal. Beef import tariffs, at 40%, are high for MFN, with trade dominated by the US and Australia. Under the Korea-Australia Free Trade Agreement, tariffs are to be eliminated by 2028 on beef, processed beef, and bovine offal. At present, Australia has a TRQ of 161,000 tonnes at 29.3%. The USA has a TRQ of 24% for 300,000 tonnes, which will be lifted, and product will become duty-free by 2027. Competition is therefore likely to increase in the next 10 years. It is important for Korean consumers to know the origin of beef they consume as well as the provenance of its source location, providing imported beef with positioning and messaging opportunities. Stringent food safety and animal health laws restrict imports from some low-cost producers such as Brazil.

Pig meat
South Korea is a major importer of chilled and frozen pork and shipments are increasing steadily with further growth expected by 2026. Volumes imported in 2016 amounted to 465,000 tonnes, of which 95% is frozen. The EU was the largest supplier, with over a 50% market share, followed by the USA with 30%. EU trade is dominated by Germany and Spain while Korean trade statistics indicate that the UK supplied 3,100 tonnes in 2016. Small volumes of pig offal are also imported, with trade amounting to 18,000 tonnes in 2016. Korean trade statistics indicate the UK supplied 91 tonnes of pig offal but UK HMRC statistics have the figure much higher at 1,700 tonnes.

The MFN import tariff amounts to 25% on frozen while for the smaller volume of chilled imported it is 22.5%. However, following the EU-South Korea FTA of July 2011, tariffs on product from the EU have already been reduced to zero for most cuts, including all frozen cuts with the exception of "streaky pork," which is 11.3%. For chilled streaky pork it is 10.3%. For pig offal the MFN is 18% but frozen product from the EU is subject to zero tariff, except feet, at 2.5%. The US also has its own FTA with South Korea with most cuts already tariff-free.

It is a very competitive market with most product for further processing but the UK, which does have export certification, could also be in a position to supply some chilled premium cuts and further processed, such as sausages.

Dairy products
OECD-FAO projections predict moderate increases in dairy imports to 2026. To date, UK exports to South Korea have been relatively limited. Cheese imports have been increasing rapidly since 2009, but remain low at around 110k tonnes in 2016. UK milk powder sales to South Korea have been immaterial, and butter exports also small.

At present South Korea's dairy imports come from New Zealand, Australia, and the USA, but the EU has also achieved some success in accessing the market.

The increased projection in imports is driven by affluence, not population growth. South Korea has a young consumer demographic, akin to a young Japan, who are keen to adopt western diets and lifestyles. It is this desire to follow the west that makes South Korea a potential target for premium dairy products.

Opportunities for the UK
Brexit is unlikely to have a significant impact on the trading relationship with South Korea, despite the UK losing access to the existing EU-South Korea FTA. UK "protected geographical indication" products are protected in South Korea and so the UK would need to ensure these are protected post Brexit. Some opportunities may exist for premium beef and dairy as well as pork.

Singapore

Background

Singapore has a population of just 5.5m but is a high-income country with sophisticated retail and food service sectors combined with high income tourists. The country is almost entirely dependent upon food imports and so no import tariffs are in place.

Singaporeans are open to high quality value for money products from developed countries and so opportunities exist for premium meat and dairy. Food safety is viewed as of great importance and so sanitary and phytosanitary standards are strict.

Whilst Singapore is a non-Muslim country, its halal food industry has gained importance as a globally recognised halal hub due to the country's tourism and business location, stringent food safety laws, and recognised halal standards.

The retail sector is dominated by three key players: the NTUC FairPrice Cooperative, Dairy Farm International Holdings, and Sheng Siong Supermarket. Convenience is the key in the Singapore market. The preference is towards modern grocery retailers, such as supermarkets and hyper-markets in particular.

Measure	2015	2022	CAGR % change
Population (m)	5.54	5.93	1.0%
GDP at current prices ($bn)	296.84	340.85	2.0%
GDP per capita ($) at current prices	53,629	57,451	1.0%
GDP per capita ($) PPP	86,128	109,472	3.5%
Real GDP growth rate (%)	1.9	2.7	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	32	High	Brazil (49%) Australia (26%)
Pork	82	Medium	Brazil (43%) Australia (17%)
Sheep meat	13	High	Australia (91%)
Red meat offal	25	Low	Australia (37%) Argentina (13%)
Cheese	14	High	Australia (39%) New Zealand (17%)
Butter	23	Negative	New Zealand (35%) Netherlands (22%)
Milk powders (SMP/ WMP other)	122	Low	New Zealand (58%)

Source: International Enterprise Singapore, IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef
Over 80% of beef imports are from Brazil, Australia, and New Zealand. The UK has market access for deboned products from cattle under 30 months but quantities supplied are negligible, as UK product is very expensive.

Pig meat
The country has a growing import requirement for chilled and frozen pork, at 82,000 tonnes in 2016. Shipments mainly consist of frozen cuts for further processing, although Australia also supplies chilled carcases. Brazil is the main supplier, with just over a 40% market share, followed by the EU. It also has a small import requirement for pig offal.

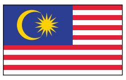
The Singapore trade statistics indicate that there is no trade with the UK, which conflicts with UK data, which shows an increasing trade with volumes amounting to almost 1,600 tonnes in 2016, up over 60% from 2015. There is scope for supplying commodity cuts and offal and even limited volumes of high-value cuts for retail.

Dairy Products
Based upon historic trade, dairy imports into Singapore are expected to grow between 2016 and 2026, although for milk powder imports this growth is negligible. Cheese growth is projected to be high and so there may be opportunities for high-value product. The latest OECD-FAO projections have revised down butter imports.

Historically, the UK has exported milk powders to Singapore, with volumes reaching 1,000 tonnes in 2014, although this has dropped off as milk production in the UK has fallen. In 2014 the majority of milk powder exports to Singapore from the UK were for SMP, but by 2016 this had switched almost entirely to WMP.

The UK is also exporting a growing level of butter and cheese into the country. In 2016 butter exports reached 375 tonnes, while cheese was around 400 tonnes. About three-quarters of the cheese exports were for Cheddar. Price-wise sales into Singapore have averaged close to the overall UK average export value

Opportunities for the UK
Opportunities exist across a range of dairy products, but competitiveness and access to market are key. The UK has access for beef, but, due to its high price, limited quantities have been sold. Better opportunities may exist for pork commodity cuts and pig offal. No tariffs are in place in Singapore, so the EU has no preferential agreements in place. Brexit is unlikely to have any impact on the UK's trading relationship with Singapore.



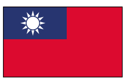
Malaysia

Malaysia is a middle-income country with a high degree of trade-openness. In 2015 Malaysia imported over 169,000 tonnes of beef and demand is projected by the OECD-FAO to be over 20% from 2016-2026. Almost 80% of current imports are from India. No tariff barriers are currently in place for beef and bovine offal. Malaysia is a developing economy, with over 50% of its population defined as middle-class. If the UK had access, it could offer small opportunities for the UK for low- and high-value beef cuts and offal. Product would need to be halal, as 65% of the population is Muslim. Halal is also fast becoming a benchmark for quality, hygiene, and food safety, and halal certification would give added value.

Malaysia has an extensive food-processing and manufacturing sector, in many cases owned by major dairy exporters such as Fonterra, for both domestic and export markets. Powder imports are substantial at 190,000 tonnes per annum.

Malaysia also has no domestic cheese production, meaning all whey and cheese must be imported. Whilst this might suggest a large potential export market, cheese is not a traditional element in Malay cuisine and not consumed often within households. Consumption of cheese is thus driven largely by demand for 'westernised' food, meaning cheese exports primarily supply the food service sector. Malaysia also imported over 21,000 tonnes of cheese and 19,000 tonnes of butter in 2015.

Dairy trade is dominated by Australia and New Zealand, although they have no tariff advantage since MFN rates are zero on powders, butter, and cheese.



Taiwan

Taiwan has been one of the most robust, high-growth economies in Asia and is highly dependent on international trade. Taiwan is heavily dependent on importing beef, with local production meeting just 5% of consumption needs. Over 95,000 tonnes of beef was imported in 2015. Australia dominates the market for cheaper cuts, with the US the dominant supplier of chilled. Popular cuts are shin/shank, blade, intercostals, manufacturing, and thick flank/knuckle. Food safety is a top priority for consumers in Taiwan. The UK has no market access at present and opportunities look very limited. Tariffs, at typically circa $10NT per kg (26p as of 23 June 2017), are not particularly high.

Taiwan also has a growing pork import requirement and chilled/frozen volumes in 2016 amounted to 59,000 tonnes, mainly supplied by the EU (64% market share). Product mainly consists of frozen cuts for further processing. The UK has no market access, but other EU countries are already taking advantage of Taiwan's large import requirement. It is the EU's eighth largest market for pork, with Spain and Denmark the major suppliers. This would suggest there could be scope for the UK to establish itself there, and this could even include small volumes of high-welfare product. Competition in this market would be strong. The MFN import duty is 12.5%

Based upon historic trends and ongoing development, Taiwan imports of butter, cheese, and milk powder are expected to show single-digit increases to 2026. However, overall volumes into the country remain low. New Zealand is the main exporter to Taiwan, covering 90% of milk powders and 59% of butter.

Tariffs into Taiwan for dairy range from 5% for cheese to 11% for butter, although New Zealand is able to trade with no tariffs.

The UK has not exported any dairy product to Taiwan over the last three years, and despite the anticipated growth in Taiwan's overall dairy imports, this is not regarded as a key opportunity for UK dairy.

Vietnam

Positive demographic trends, rising incomes, robust economic growth, and rapid expansion in the retail sector will drive growth and development in Vietnam's food and drink sector. However, due to low income levels, mass market products are likely to outperform over the medium- to long-term, with a limited scope for premium products. Dairy sales are forecast by BMI Research to grow at over 11% per annum in the period to 2021, with meat just below at 9%. Imported goods are perceived to be of higher quality and a number of recent food scares have undermined confidence in local meat producers.

The UK has no access for beef, but opportunities could arise, albeit limited to offal and low-value cuts. Tariffs average 21.3% of fresh and 18% for frozen, but under the ASEAN-ANZ FTA, tariffs of 5% for beef are to be reduced to zero in 2018, so competition from here would be strong. India is by far the dominant supplier for beef, but much is re-exported out of the country. In addition, a large number of live exports come from Australia at circa 200,000 head. Bovine offal have a low tariff under MFN of 8%.

The country imports small volumes, both of pork and pig offal. There is a strong demand for pig meat in Vietnam and imports are expected to show strong growth to 2026 from this low base. However, the UK does not currently have access to this market. UK market access could possibly see some shipments there of low-value frozen cuts and pig offal, as other EU countries, led by Denmark, already supply small volumes. The MFN on frozen pork is 15%, and on pig offal 8%. However, the EU-Vietnam FTA came into force in October 2016 and will increase market access for EU exporters, and tariffs on frozen pork will be phased out over a seven-year period.

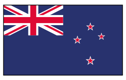
The OECD-FAO is projecting milk powder imports to increase into Vietnam by over 30% between 2016 and 2026, up from 80,000 tonnes. At present the UK sells only very small volumes of product into the country. The only powder sales are sporadic and at discounted prices, which suggests they are designed to remove excess UK stocks. There appears to be limited opportunities for the UK dairy industry into Vietnam at present. The EU-Vietnam FTA will remove the 5% tariff on powders for EU members over the next 5 years and so the UK would have to continue to pay this tariff. New Zealand and Australia will have tariff-free access for powders by 2019.

The UK doesn't have market access for beef and pork, but some opportunities will likely exist for low-value cuts and offal. There are limited opportunities for dairy. With the UK leaving the EU, it will lose access to the FTA and so competition from the EU for pork and dairy will increase.

Indonesia

Indonesia had beef imports of over 114,000 tonnes in 2016 and is projected by the OECD-FAO to have a large growth in imported beef to 2026. Tariffs for beef and bovine offal are low at 5%; however, the country has strict phytosanitary standards which, combined with the need for halal product and competition from lower-cost product, will limit any UK opportunities. The UK does not have access to Indonesia and any opportunities would be limited to small quantities of frozen manufacturing beef and offal due to cost. In recent months shipments of low cost buffalo meat from India have increased rapidly and have displaced Australian meat at the lower end of the market in wet markets and manufacturing. It has been reported that a quota of 110,000 tonnes for Indian buffalo meat has been issued for this year. Spain has also commenced exports of low-cost beef to Indonesia. Research has indicated consumers have no preference for local over imported meat.

According to OECD-FAO, Indonesia is projected to moderately increase imports of dairy products to 2026. Tariffs are 5% across all dairy categories. New Zealand and Australia already have largely tariff-free access for butter and cheese and will do so for powders by 2020. The UK did export a small amount of butter (25 tonnes) to Indonesia in 2016, but this was the first trade for some time, and there was no trade of cheese or milk powders. Indonesia offers potential for increased dairy consumption. Growth in household incomes has seen a rise in expenditure on food and, as a result, demand for protein and fat-rich dairy products has increased. However, this is being offset by exchange-rate volatility and food-price inflation. While Indonesia has the potential to be a key export market, opportunities for the UK are likely to be limited. This is due to competition from closer dairy-producing nations such as Australia and a growing desire by the Indonesian government to place non-tariff restrictions on trade.

Australia/New Zealand

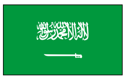
Australia has had a growing import requirement for chilled and frozen pork and this is expected to continue and could reach up to 185,000 tonnes product weight by the year 2026, based on OECD-FAO projections, as compared with 155,000 tonnes in 2016. Most imported pork is used for further processing, such as bellies, and so is mainly frozen, with the EU the main supplier with a 52% market share, followed by the USA with 356.

The UK has a small but growing market share and Australian trade data indicates that shipments amounted to 1,300 tonnes in 2016, up from less than 100 tonnes a year earlier. This market represents one of the few for the UK that takes high-value cuts and there could even well be scope to market limited volumes of high-welfare cuts. There are no import tariffs on pork.

New Zealand pork imports are also rising and reached 46,000 tonnes in 2016, with the EU accounting for two-thirds of the total. The UK supplied almost 120 tonnes, based on New Zealand data, so there could also be prospects for supplying this market as well. Import tariffs amount to 5% ad valorem.

Australia brings a limited opportunity for the UK dairy industry to provide premium cheese. Australia doesn't currently have the domestic production for high-end premium Cheddars, but there is a growing desire from their consumers for this type of product. The volume opportunity is small, but could be at a high price. Tariffs on Cheddar are typically 1.22AU$ per kg, but cheeses such as Stilton and Brie are tariff-free.

Middle East/North Africa



Saudi Arabia

Background

Saudi Arabia is one of the larger consumer markets in the Middle East, with a population of over 31m and rising steadily. There is a very wide diversity in income levels between much of the immigrant population (which amounts to about 10m) and the affluent Saudi nationals. The economy is in steady growth, although this can vary depending upon the fortunes of the global oil market.

The market is sophisticated, consumers are very discriminating, and there is a growing demand for higher valued, quality products, with consumers also more adventurous in their tastes. The modern retail sector is substantial, including French companies having a presence while the westernised fast-food service sector is also expanding rapidly. There are considerable differences in consumer tastes, reflecting the ethnic diversity of the country.

The country is very import-dependent and food import regulations and standards are strictly enforced, given strong adherence to the Islamic faith. There is further limited growth potential for imports of both red meat and dairy products, taking account of the increasing consumer base, and there are no import tariffs on meat and dairy products covered in this analysis.

Measure	2015	2022	CAGR % change
Population (m)	31.02	35.75	2.0%
GDP at current prices ($bn)	651.76	837.25	3.6%
GDP per capita ($) at current prices	21,014	23,421	1.6%
GDP per capita ($) PPP	54,949	60,820	1.5%
Real GDP growth rate (%)	4.1	2.1	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	92	Negative	India (47%) Brazil (23%)
Sheep meat	47	Negative	Australia (39%) New Zealand (19%)
Red meat offal	14	Medium	Australia (67%) New Zealand (29%)
Cheese	172	Negative	Denmark (28%) Egypt (15%)
Butter	55	Medium	New Zealand (36%) Lithuania (12%)
Milk powders (SMP/ WMP other)	199	Low	New Zealand (29%) UAE (19%)

Source: Central Department of Statistics & Information, IHS Maritime & Trade-Global Trade Atlas® Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef

OECD-FAO projections are for an overall decline in beef imports to 2026, but Saudi Arabia could offer some small opportunities for both low- and high-value beef cuts, although the product would need to be halal and the UK does not have market access, unlike the UAE, for example. In supermarkets, consumers in Saudi Arabia look for on-pack cues that the beef is natural, fresh, and from a trusted country of origin. Imports are currently dominated by India supplying carabeef to the bottom end of the market, with Australia the other main supplier.

Sheep meat

There could be limited scope here to export, mainly to expats in the country, but currently, as with beef, the UK does not have access to this market. Opportunities for both offal and bone-in and boneless frozen do exist, but do not offer huge potential, especially given the dominance of Australia and New Zealand in supplying the market.

Dairy products

Saudi Arabia offers an opportunity for a small volume of high-quality dairy products to the wealthy nationals. Tariffs are typically around 5% for butter, cheese, and powders. In 2016, the UK sold 1,500 tonnes of butter to Saudi Arabia, almost five times the level recorded in 2015. Cheese exports reached more than 3,000 tonnes in 2016, mostly of Cheddar or Cheddar variants. This represents an increase of 500 tonnes over 2015 and shows the continual growth into this market. It was also the fastest growing market for the UK cheese industry outside the EU. OECD-FAO projections are for a decline to 2026 for cheese imports, despite strong recent growth. UK exports of SMP to the country also increased in 2016, although WMP sales fell back, most likely reflecting the lower overall production of milk powders in the UK.

Opportunities for UK

These are limited to small volumes of high-value dairy products, given the lack of market access for meat. If market access could be gained for sheep meat, some opportunities might emerge. Brexit is unlikely to have any impact on the existing UK trading relationship.

Egypt

Background

Egypt has a large and growing consumer base of almost 90m. Purchasing power is generally low, with 90% of the population dependent upon government food subsidies. However, there is a small base of higher-income consumers demanding high quality products and with more western tastes.

The economy is subject to major swings, as is also the value of the Egyptian pound. The all-important tourism trade is also subject to large swings depending upon the security situation. Such factors inevitably influence import demand for meat and dairy products. Basically, it is a commodity market, where market price competitiveness is the key. Obviously, product has to conform to Muslim requirements. The modern retail sector is both small and fragmented.

The EU-Egypt Association Agreement has been in force since 2004 and includes free trade on most agricultural products. The USA has no FTA with Egypt, unlike Mercosur countries.

Measure	2015	2022	CAGR % change
Population (m)	89.0	103.4	2.2
GDP at current prices ($bn)	332.08	n/a	n/a
GDP per capita ($) at current prices	3,731	n/a	n/a
GDP per capita ($) PPP	12,041	16,813	4.9
Real GDP growth rate (%)	4.4	6.0	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	222	Medium	Brazil (59%) India (37%)
Sheep meat	<1	Negative	Australia (96%)
Red meat offal	189	Medium	USA (57%)
Cheese	24	High	Netherlands (33%)
Butter	41	High	New Zealand (67%)
Milk powders (SMP/ WMP other)	59	Medium	Germany (22%)
Whey powder E	165	High	

Source: UN COMTRADE / Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder ; E = estimate

Beef

The country could offer volume and growth opportunities for low-cost beef and beef offal. Bovine liver and cuts such as brisket and flank are popular amongst consumers. Imported beef is almost all low-cost, mainly from Brazil, and carabeef from India. At present the UK does not have access and product would need to compete on price and be halal, further limiting trade for the UK. No tariffs are in place for beef, but bovine offal have a 5% MFN rate, although for EU countries the rate is zero. The government is looking to increase domestic consumption by subsidising imports in its consumer complexes.

Dairy Products

Egypt could offer volume and growth opportunities for low-cost dairy commodities, but there are limited opportunities for premium dairy foods. UK sales of cheese to Egypt in 2016 reached around 1,000 tonnes, but the average return was well below the overall average for all cheese export in the year. This suggests that sales to Egypt are used by the UK to clear stocks, when prices are low enough to bring Egyptian buyers into the market. UK SMP sales into Egypt have been falling over the last three years, and again deals have been done at discounted prices. New Zealand continues to be the largest exporter to Egypt for dairy ingredients. The OECD-FAO projection expects import levels to increase across all dairy products, with cheese expected to more than double. However, Egypt will continue to be a low-price market. In order for sales to Egypt to be sustained, the UK supply chain will need to be hyper-efficient. The import tariffs under the MFN are generally low, being 10% or lower depending upon product, but for the EU no—or only low—tariffs are applicable (eg some cheeses are 5%).

Opportunities for the UK. Some opportunities could exist for low-cost beef and offal. For dairy this is limited to low-value dairy products. Leaving the EU would lead to the imposition of a 5% tariff on beef offal and up to 10% on some dairy products, unless a new trading agreement were signed.

Turkey

Background

Straddling the continents of Europe and Asia, Turkey's strategically important location has given it major influence in the region—and control over the entrance to the Black Sea.

Progress towards democracy and a market economy was halting after Ataturk's death in 1938, and the army, seeing itself as guarantor of the repeatedly ousted governments seen as challenging secular values.

Joining the European Union has been a longstanding ambition. Membership talks were launched in 2005, but progress has been slow, as several EU states have serious misgivings about Turkish EU membership.

Measure	2015	2022	CAGR % change
Population (m)	78.74	84.60	1.0%
GDP at current prices ($bn)	859.60	1031.52	2.6%
GDP per capita ($) at current prices	10,910	12,194	1.6%
GDP per capita ($) PPP	24,227	35,502	4.3%
Real GDP growth rate (%)	6.1	3.4	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Turkey will start to implement a new subsidy program for agricultural products in 2017, the National Agriculture Project, which has an anticipated annual budget of nearly US$4bn. According to announcements thus far, the country of Turkey will be divided into 941 agricultural basins based on climate and soil, to subsidise 19 strategic crops, with a specific set of crops for each basin. It is expected that planting area of corn will decrease by an amount up to 30% in MY 2017 in response to the new policies because the Turkish Grain Board, a favorite buyer for Turkish corn farmers, likely won't purchase corn from farmers in basins where corn is not on the subsidised list. Livestock subsidies will be increased in 2017, with the aim of boosting livestock inventory in Turkey and reducing feeder cattle imports.

Livestock numbers and red meat prices have been a critical issue for the current administration of the Turkish Ministry of Food, Agriculture and Livestock as they try to address the public's concern for high red meat prices and their impact on food inflation, which has been exacerbated by the devaluation of the Turkish Lira against the Dollar and Euro. High feed prices continued to drive up the costs of beef. New import policies favor government-affiliated importers over the private sector.

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	6	Negative	Bosnia & Herzegovina (100%)
Cheese	10	Negative	Free Zones (52%) Ireland (14%)
Butter	41	Negative	New Zealand (33%) Ireland (26%)
Milk powders (SMP/ WMP other)	<1	Unchanged	Germany (37%)

Source: UN COMTRADE / Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef
Some small opportunity in Turkey could exist for low-value beef cuts, but high phytosanitary standards, applied tariffs 100% to 225%, the need for halal, and the political situation are likely to be limiting factors.

Sheep meat: Turkey currently does not import sheep meat. OECD data shows this is not projected to change to 2026, hence Turkey does not provide market opportunities for sheep meat exports.

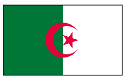
Pig meat
No pig meat is imported into Turkey. OECD-FAO projections are therefore for no change, thus Turkey does not provide any opportunity for UK export of pig meat.

Dairy products
The latest OECD-FAO projection is for a fall in butter and cheese imports to 2026, having revised down its previous projections, which expected growth. Milk powder imports are negligible and not expected to change.

UK's exports to Turkey have been relatively low for butter and powder, although cheese exports have been growing recently. In 2016 the UK exported 1.4k tonnes of cheese, mainly Cheddar. This was significantly up from the 100 tonnes exported in 2015. Averages prices suggest that this extra business was won due to lower-than-average pricing.

There may be an opportunity for the UK, limited to low-cost commodity products. Cheese sales will also need to take into consideration the halal requirements of the majority of consumers in the country. In addition, the EU benefits from 0% tariffs on Cheddar with an MFN rate of 45%, which the UK would likely be subject to when it leaves the EU. Tariffs on butter products for both the EU and MFN range from 0% to 140%.

Opportunities for the UK
These would be restricted to low-value butter and cheese. The UK's trading relationship for Cheddar exports will change due to Brexit on account of Turkey's higher tariffs, unless a trading deal can be arranged.



Algeria

Algeria has historically been a significant purchaser of milk powders, buying 360k tonnes in 2015, and OECD-FAO projections are for a low (5%) increase from 2015 to 2026. The biggest supplier tends to be New Zealand. In 2016, the UK exported 2,000 tonnes of powder to Algeria, as a mix of SMP and WMP, the equivalent of only around 2% of UK powder exports. However, in 2014, when milk production in the UK was high, WMP exports to Algeria reached 18k tonnes. This amounted to more than 40% of the UK's total WMP exports in the year.

OECD-FAO also project increased imports in cheese (11%) and butter (52%) from 2015 to 2026, although tariffs across most dairy products are high, at 25% to 30%. Milk powders have reduced tariffs of 5%.

Algeria runs a tender process to purchase their milk powder, and sales into the country are normally price driven. Historically the UK has tendered when powder stocks are high due to high milk production, as shown by the volume step up in 2014. However, opportunities to build premium markets with the country are limited, due to the tender process for powder and high tariffs for other dairy products. As such, opportunities to sell into Algeria appear limited to high-volume, low-price powders, and only then if the UK can compete with other countries such as New Zealand.

United Arab Emirates

The UAE is heavily reliant on food and drink imports and the UK has more than 420m pounds worth of exports to the UAE. The country's growing population, thriving economy, and profile as one of the world's hottest tourist destinations has only whet the UAE's appetite for quality food products and hospitality services. UAE food and drinks imports are due to increase by 30% and, with dairy products as the third biggest import for the UAE, this is a key market for Britain. A key area of opportunity for the dairy sector, and especially for cheese, is the food service and hospitality industry. In Dubai, alone, there are 70,000 hotel rooms, plus airlines, etc, and, as a premium destination with over 16m tourists a year, this is a key market. The UK shipped over 2,000 tonnes of cheese to the UAE in 2016, according to data from UK HMRC. There could be an opportunity for high-value dairy cheeses. MFN tariffs are 5% for powders, cheese, and butters.

Sub-Saharan Africa

Ivory Coast

Background

This prosperous West African country is Africa's fastest growing economy in 2016, according to the IMF. The country's phenomenal growth rate of 8.5% contrasts with the rest of sub-Saharan Africa, which has around 3% growth. Ivory Coast diet is based on tubers, grains, pig, chicken, seafood, fish, fresh fruits, vegetables, and spices. It is very similar to that of neighboring countries in West Africa.

Measure	2015	2022	CAGR % change
Population (m)	23.71	28.38	2.6%
GDP at current prices ($bn)	32.76	56.23	8.0%
GDP per capita ($) at current prices	1,382	1,981	5.3%
GDP per capita ($) PPP	3,399	5,256	6.4%
Real GDP growth rate (%)	9.0	6.6	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2015	% change 2015 to 2026	Major suppliers shares
Beef	<1	Negative	Brazil (45%)
Pork	21	High	Germany (34%) Italy (15%) UK (13%)
Sheep meat	1	Low	Australia (72%)
Red meat offal	84	High	France (26%) Germany (14%)
Cheese	1	High	France (41%) Morocco (29%)
Butter	1	High	France (77%) New Zealand (11%)
Milk powders (SMP/WMP/ other)	16	Low	New Zealand (26%) Ireland (22%)

Note: 2016 trade data not available at the time of publication. SMP = skimmed milk powder; WMP = whole milk powder.

Source: UN COMTRADE/Trade Map, AHDB.

Beef

The Ivory Coast is a member of the Economic Community of West African States (ECOWAS) and the bloc has a common 35% external tariff for beef and also bovine offal, as it is classed as a sensitive product. Data from UK HMRC states that in 2016, the UK shipped 127 tonnes of beef and 1,700 tonnes of bovine offal, up three-fold from 2014, and shows potential. This product is typically used in traditional stews.

Pig meat

The country has emerged as a significant importer of low-value frozen pork cuts and shipments amounted to almost 21,000 tonnes in 2015. This was almost entirely supplied by the EU, with EU export statistics indicating that volumes were unchanged in 2016. The EU also dominates trade in pig offal with total import volumes amounting to 37,000 tonnes in 2015. However, EU export statistics indicate a decline of 35% in shipments in 2016.

This is the largest market in Africa for UK exports of both pork and pig offal and in 2016 took in 2,200 tonnes of the former and 900 tonnes of the latter, based on UK export statistics. MFN import tariffs are 35% for both pork and pig offal.

Dairy products

Ivory Coast is a member of the ECOWAS and has tariffs for dairy products ranging from 20% on cheese to around 7% for milk powders. Overall, dairy imports into the country are very small, with New Zealand the main supplier of milk powders. The UK's exports to the Ivory Coast are limited to WMP and in 2016 the UK sold around 3.5k tonnes of WMP to the Ivory Coast. This production came almost exclusively from Northern Ireland. Sales of SMP from the UK are small and erratic and the UK is not currently trading butter or cheese. As a result, opportunities for future extensive trade with the Ivory Coast look limited.

Opportunities for the UK

Continued opportunities exist for offal and low-value pork. Dairy opportunities are limited to WMP from Northern Ireland for the dairy sector. However, despite tariffs of 35%, further opportunities exist for offal. Brexit is unlikely to have any effect on the existing trading relationship with the UK.

West Africa

The West African region offers opportunities for beef and bovine offal and the UK has had some success in the past 3 years. The UK has good access to the region for most meats. Ivory Coast looks to be the best market overall, but other countries in the region, including Guinea, Senegal, Gabon, Sierra Leone, Togo, Benin, Congo, and DR Congo, offer opportunities for low-value cuts and offal. With the exception of Gabon, the Congo, and DR Congo, these are ECOWAS members with a 35% tariff on beef. Gabon in particular in 2016 was one of the largest non-EU markets for UK beef at 1,300 tonnes, consisting of largely bone-in, frozen beef cuts. Ghana had been a small but growing market for UK beef, but has fallen back. The region has a large Muslim population and so there would be some halal requirements. Senegal has a booming meat processing sector using Indian bovine offal. Liberia, which has a large non-Muslim population, offers opportunities for lower-value pork and pig offal.

The UK has shipped small quantities of sheep meat to Ghana, Congo, and Gabon, but future prospects are likely limited to low quantities of very low value cuts.

There are a number of other markets in Sub-Saharan Africa, especially in West Africa, that import low-value frozen pig cuts and offal. The market is very price-competitive and sensitive, given the limited purchasing power of the region. The largest markets were the Congo (taking 900 tonnes in 2015) and Liberia (700 tonnes). The main suppliers to the region are other EU exporters which ship around 60,000 tonnes of mainly frozen pork, and Brazil, over 35,000 tonnes. Data is very limited, but the other major markets for imported pork are Angola and the Democratic Republic of the Congo. The EU also supplies around 35,000 tonnes of pig offal. Import tariffs inevitably vary and for Angola they are 10% on both chilled and frozen pork and pork offal. For the Congo the tariffs are 20% for both products. Nigeria, though, is not considered an opportunity.

For dairy, UK trade with the West African region is currently limited to WMP sales from Northern Ireland. This includes sales to the Ivory Coast, Guinea, Gabon, Congo, and Senegal. There appear to be limited opportunities for other dairy products.

South Africa

Background

South Africa is a middle-income, emerging market with an abundant supply of natural resources; well-developed financial, legal, communications, energy, and transport sectors; a stock exchange that is the 18th largest in the world; and modern infrastructure, supporting a relatively efficient distribution of goods to major urban centres throughout the region.

South Africa is a multiethnic society, encompassing a wide variety of cultures, languages, and religions.

South Africa has a mixed economy, the second largest in Africa after Nigeria. It also has a relatively high GDP per capita compared to other countries in Sub-Saharan Africa. Despite this, South Africa is still burdened by a relatively high rate of poverty and unemployment, and is also ranked in the top 10 countries in the world for income inequality, as measured by the Gini coefficient of 63.1. Since June 2016 the EU has had a trade agreement with South Africa (and neighbouring countries), which includes increased market access for dairy products with tariff free access for products such as grated and blue cheese.

Measure	2015	2022	CAGR % change
Population (m)	55.01	61.61	1.6%
GDP at current prices ($bn)	314.73	380.42	2.7%
GDP per capita ($) at current prices	5,721	6,175	1.1%
GDP per capita ($) PPP	13,.230	15,216	2.0%
Real GDP growth rate (%)	1.3	2.2	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	19	Medium	Botswana (49%), Namibia (34%)
Pork	24	High	Spain (37%) Germany (31%)
Sheep meat	9	Negative	Namibia (50%) Australia (37%)
Red meat offal	42	High	Australia (35%) New Zealand (14%) UK (10%)
Cheese	13	Negative	Germany (21%) UK (20%)
Butter	5	Negative	New Zealand (59%) Ireland (11%)
Milk powders (SMP/WMP/ other)	10	Negative	France (34%) New Zealand (26%)

Source: South African Revenue Service, IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef

South Africa could offer opportunities for lower-cost meat and continued trade development of offal. The UK has access for deboned beef and offal and it was the second largest non-EU market for UK beef offal in 2016, with 3,200 tonnes shipped. Tariffs are high on beef but offal vary, with frozen tongues at zero rate and livers at 22% to 30%.

Sheep meat

Sheep and goat meat production combined has fluctuated since 2007 and stood at 165,000 tonnes in 2011, of which circa 80% was sheep meat.

This data is supplied predominantly by Namibia and Australia. OECD-FAO is projecting a small fall in import volumes to 2026.

There are limited opportunities for both high-value and offal sheep meat to South Africa.

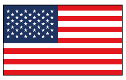
Pig meat
South Africa has a small import requirement for chilled and frozen pork, and volumes amounted to 31,000 tonnes in 2016. The EU dominates, accounting for 90% of the total shipping of frozen cuts. These are for further processing, especially ribs, which account for over 60% of trade. It is a very competitive commodity market. Spain and Germany are the main suppliers while South African trade statistics indicate that the UK shipped 1,400 tonnes in 2016 and there is potential for further growth. A smaller volume of pig offal are also imported and UK trade amounted to 622 tonnes in 2016. There are no import tariffs on ribs, although for other pork cuts the MFN tariff is 15% but not less than 130c/kg. There is no MFN tariff on pig offal except on livers, which are set at 30% but not less than 130c/kg.

Dairy products
Opportunities in South Africa for UK dairy appear limited. The market itself is relatively small. Despite population growth predictions, OECD-FAO expects to see dairy imports falling to 2026. In 2016 the UK supplied around 10% of the total butter imported into the country, but even this represented only 335 tonnes. Milk powder exports from the UK to South Africa have been erratic, and a mix between SMP and WMP, suggesting they are opportunistic sales based on stock levels, rather than consumer-led drive.

Cheese would appear to be one opportunity for the UK to access the South African market. UK cheese sales to South Africa grew 15% in 2016 to exceed 2,500 tonnes, all of this being Cheddar, and represented around 20% of total cheese imports into the country. However, the average prices achieved suggest that deals are only done when prices reach a point low enough to bring South African buyers into the marketplace. The EU does not benefit from reduced tariff access for Cheddar, at 500 cents per kg (29p per kg as of 9 August 2017). In order to make sales to South Africa work longer term, the UK supply chain will need to be hyper-efficient.

Opportunities for the UK
There is a potential market for low-value cheese as well as beef and sheep offal. Leaving the EU could reduce access for some dairy products such as butter and grated cheese, if the UK lost preferential access as a result.

North America



USA

Background

The country has the largest global economy and also represents a large consumer base of over 320m with a high level of purchasing power. It is a large importer of red meat and also represents a significant importer of dairy products.

The modern retail sector is very sophisticated as is the key food service sector. However, it is also characterised by its considerable ethnic diversity, given the cultural make-up of the US population. Consumers are increasingly searching for healthier foods, provenance including ethical suppliers. They are also prepared to try food of other cultures, especially younger, higher-income consumers, but preference is for locally produced products. Consumers have some of the highest levels of per capita consumption of animal proteins in the world, as fat intake is not yet such a key issue.

Measure	2015	2022	CAGR % change
Population (m)	321.08	338.45	0.8%
GDP at current prices ($bn)	18,036.65	23,760.33	4.0%
GDP per capita ($) at current prices	56,175	70,204	3.2%
GDP per capita ($) PPP	56,175	70,204	3.2%
GDP growth rate (%)	2.6	1.7	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	958	Low	Australia (26%) Canada (25%) New Zealand (21%)
Pork	322	Low	Canada (76%) EU (20%)
Sheep meat	86	Negative	Australia (74%) New Zealand (26%)
Red meat offal	76	Medium	Canada (56%) Australia (18%)
Cheese	205	Negative	Italy (17%) France (11%)
Butter	49	Negative	Ireland (26%) Mexico (24%)
Milk powders (SMP/WMP/other)	18	Negative	Netherlands (44%)

Source: U.S. Department of Commerce, Bureau of Census, IHS Maritime & Trade-Global Trade Atlas®, Trade Map, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef
The USA might have a large beef import requirement, but trade is already dominated by Australia, New Zealand, and Canada, with little scope for the UK to penetrate. Mexico and Canada can export tariff-free, with quotas available for other countries typically at 26.4% for most imported cuts, although offal have no tariff. There is the possibility that the UK could supply small volumes of beef offal and technical cuts.

Sheep meat
OECD-FAO projections indicate declining US sheep meat imports in the next ten years, although in the last five years they have increased, as some ethnic consumers have increased their demand. Trade is dominated by Australia and New Zealand. Under the MFN, cuts are subject to a tariff of either 0.7c or 2.8c/kg depending on the cut, but under the Australia-USA FTA, Australian sheep meat is not subject to tariffs.

The American domestic sheep sector is small and largely reliant on imports to meet consumer demand. Thus, despite the new administration's desire to promote domestic products, there is scope to enter the US sheep meat market. This applies to both offal and more expensive cuts, both bone-in and boneless, although it would require considerable work to penetrate this market.

There should be limited scope to establish British lamb on the USA market, but it would require considerable marketing effort. There is limited scope for developing UK trade in sheep offal.

Pig meat
The country has a substantial import requirement for chilled and frozen pork, but, being part of NAFTA, Canada has the lion's share of this trade, 80%. However, the EU is the second largest, supplied by Poland and Denmark, mainly supplying the balance.

The UK has a small but growing trade and American trade data indicates that it supplied 8,200 tonnes in 2016, up from 6,700 tonnes in 2015. Trade is dominated by ribs into food service but there could well be some limited scope for trade in premium pork that can satisfy concerns about use of antibiotics in pork production. Trade in hams and bellies may also be feasible. However, US trade policy under the new Trump administration could well play a part, influencing future prospects. Already there is a threat of increased import tariffs in retaliation for falling US beef export trade with the EU. Import tariffs on pork are zero or, in the case of retail hams, 1.4c/kg.

Dairy products
The OECD-FAO projections of imports of dairy products indicate small falls between 2016 and 2026. The biggest decline is for butter, down 50% with smaller falls for cheese and milk powders.

Dairy imports will also come under pressure from President Trump's desire for home-based products. Despite these predicted contractions, there are opportunities for the UK dairy industry in accessing the market. Mexico is currently the largest exporter of milk powders to the USA, a relationship that is likely to be strained over the coming years. However, at present UK sales of milk powders to the US are small and erratic. If trade is to develop, the UK will need to focus attention on the customer requirements, rather than being supply-led based on excess milk production.

USA imports of butter and cheese come from a wide variety of countries, including New Zealand and a number of EU member states. In the case of cheese in 2016, the USA was the top non-EU destination. Sales have been growing steadily by about 1,000 tonnes per year, with the majority being Cheddar or Cheddar variants. MFN tariffs on Cheddar are 16% of Free On Board (FOB) value.

Changing consumer requirements, including the drive for premium foods, are benefiting good-quality speciality cheeses with a switch away from the typical USA-made processed cheese. This includes both hard and soft varieties, where growth is expected to continue, particularly as consumers become more interested in the quality of ingredients and production methods. Consumers are also becoming increasingly adventurous and interested in trying new cheeses with more distinctive flavour profiles. In addition, for the UK, its cultural and historical reputation in the cheese-making industry is a key influencer in US buying and decision-making. The USA has, historically, had a very process-driven industry and, while this is slowly changing, the UK has an ideal opportunity to take advantage of this point of difference. The key will be to take advantage in the short- to medium term and build a market, before the US manufacturers catch up.

Opportunities for the UK
The best prospects are for dairy products, mainly premium speciality cheeses, helped by the good reputation of the British cheese-making industry. There are also prospects for pork to a limited degree and some technical beef cuts/offal. Leaving the EU is unlikely to have any effect on the current trading conditions with the UK, although the EU could be subject to retaliatory tariffs from the USA on beef, in which case the UK could benefit.

Canada

Canada could offer some small opportunities for technical cuts and bovine offal, but this is unlikely to be a significant market. Applied tariffs for fresh and frozen beef average 26.5%, with offal tariff free. The US currently exports over 350,000 tonnes, tariff-free

OECD-FAO projections have the sheep meat imports largely unchanged between 2016 and 2026. Most of their current imports come from New Zealand (60%) and Australia (40%), with which they have 0% tariff. The UK exports small amounts of sheep meat to Canada and this has the potential for growth, mainly for bone-in and boneless frozen cuts.

Canada is more an exporter of chilled and frozen pork than an importer, although import volumes still amounted to 116,000 tonnes in 2016 and trade is projected to show further growth of around 40% to 2026, based on OECD-FAO projections. Trade is dominated by the United States, but the EU is the second largest supplier and its market share was up to 15% in 2016 with frozen back ribs accounting for over 60% of the total. The UK does not supply at present but as other EU countries, led by Germany, Spain, and Poland, are supplying the market, there could be limited scope for the UK. This might well include frozen cuts and even some small volumes of chilled, possibly even high-welfare pork. The MFN import tariffs are zero. There is always the possibility that shipments from the EU could move up further as a result of the CETA agreement.

In 2016, Canada imported nearly 1k tonnes of cheese from the UK, more than 95% of it Cheddar. The overall level of cheese exports from the UK to Canada has remained relatively stable over the past three years at around the 1k-tonne mark. Canada also imported 2.4k tonnes of butter from the UK in 2016, making it one of the largest non-EU export markets for UK butter. This appears to have been in response to a short-term domestic imbalance which is expected to be resolved through additional production quotas.

According to OECD-FAO, imports of cheese are projected to increase strongly between 2016 and 2026. This is likely a function of the increased TRQs agreed to within the CETA agreement. For cheese the TRQ enables access of annual imports of 20,412 tonnes of cheese at a lower tariff. The EU currently has 66% of this TRQ, amounting to 13,472 tonnes. Under the CETA agreement, the TRQ for the EU will be increased by a total of 18,500 tonnes over a 6-year period. The majority of this TRQ is allocated to 'high quality cheese', with 1,700 tonnes allocated to industrial cheese. At the end of the 6-year period, the EU will have a TRQ of 31,972 tonnes of cheese, more than double its current volume. Outside of the TRQs, the tariffs on cheese exceed 240% and make exporting to Canada uneconomical. When the UK leaves the EU, if it loses access to the TRQ, then the opportunity for expanded cheese sales will be removed.

Total Canadian butter and powder imports are expected to fall and the opportunity for the UK is therefore likely restricted to 2015-level butter sales

Mexico

Mexico currently takes in over 80% of its beef from the US, but is now looking at sourcing product from other markets. It has recently announced the opening of a tariff-free quota of 200,000 tonnes for all countries for 2017, which previously would have faced a 25% tariff for frozen and 20% for fresh. What happens with this quota in future years remains to be seen. There could be demand for skirt and flanks traditionally used in Mexican cuisine. However, at present the UK has no access

The country has a large pork import requirement and volumes of chilled and frozen amounted to 755,000 tonnes in 2016, but product is almost entirely supplied by other NAFTA countries, the USA, and Canada. Product from these countries is subject to zero tariff while the MFN tariff for other countries is 20%. Mexico also has a large import requirement for pig offal, which in 2016 amounted to 179,000 tonnes, but again trade is dominated by NAFTA countries.

Dairy sales to Mexico are dominated by NAFTA countries, and UK sales to Mexico are currently small. The UK hasn't sold any butter or butteroil to Mexico over the last three years. Milk powder and cheese sales have been sporadic and small volumes.

However, Mexico may become an export opportunity for the UK, as the relationship with the USA and President Trump develops, although it is likely to be limited to bulk commodity products and competitive prices.

Latin America/Caribbean

Markets in Latin America and the Caribbean, such as Chile and Dominican Republic, could offer small opportunities for low-cost bovine product.

Opportunities are considered very limited, not helped by the fact that both North American and South American countries dominate this trade both in chilled/frozen pork and pig offal. The UK supplied the two regions with 200 tonnes of pork in 2016 and 300 tonnes of pig offal, so there could be scope for supplying small extra volumes of low value cuts to the Caribbean. Even other EU exporters have only a limited presence in the region, with Haiti the most important.

There could be an opportunity for dairy products into Cuba. Much of Cuba's existing imports are for powder from New Zealand and the USA. This may change, depending on the progress of relations with the USA.

Other countries

Russia

Background

Russia has a population of over 143m, making it the ninth largest country in terms of population. It is the largest by land area and has a GDP of $1.3bn. The Russian economy ranks as the twelfth largest by nominal GDP and sixth largest by purchasing power parity in 2015.

Measure	2015	2022	CAGR % change
Population (m)	143.46	142.35	-0.1%
GDP at current prices ($bn)	1,365.87	1,840.86	4.4%
GDP per capita ($) at current prices	9,521	12,932	4.5%
GDP per capita ($) PPP	26,208	33,065	3.4%
GDP growth rate (%)	-2.8	1.5	

Source: IMF, April 2017; PPP = purchasing power parity (see Glossary).

Imports (000 tonnes)	2016	% change 2016 to 2026	Major suppliers shares
Beef	366	Medium	Belarus (38%) Brazil (35%) Paraguay (20%)
Pork	259	Negative	Brazil (93%)
Sheep meat	3	Negative	Australia (49%)
Red meat offal	92	Negative	Argentina (40%) Paraguay (16%)
Cheese	217	High	Belarus (86%)
Butter	102	High	Belarus (73%) New Zealand (14%)
Milk powders (SMP/WMP/ other)	182	Low	Belarus (75%)

Source: Federal Customs of Russia, IHS Maritime & Trade-Global Trade Atlas®, COMTRADE/UN Statistics Division, OECD-FAO, AHDB; SMP = skimmed milk powder; WMP = whole milk powder.

Beef
Russia is a large importer of beef and the OECD-FAO projects continued growth imports to 2026. Beef imports have been falling in recent years due to the declining economic situation. Trade is dominated by Belarus, Brazil, and Paraguay. Tariffs are typically up to 15% for fresh and frozen beef imports. Russia may offer some opportunities for some low-value cuts of beef, should the political situation change and the current ban on imports from the EU, USA, and Australia be lifted.

Sheep meat
Russia produces far less sheep meat than beef or pork and imports less sheep meat than other red meats, at around 3,000 tonnes per year, mainly from Australia and New Zealand. Both production and consumption are not projected to change significantly to 2026, so there will be limited opportunities to access this market, particularly with the current ban on imports.

Pig meat
Russia was a large importer of chilled and frozen pork until various bans were introduced in 2014. In 2013, 620,000 tonnes were imported with the EU the dominant supplier with a market share of 60%. In the meantime, imports have declined sharply and production has expanded considerably. In the long term the country is looking towards being an exporter, although disease problems may largely prevent this. The UK also has no access to the market. Import duties are zero within quota and 65% outside it.

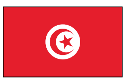
Dairy products
The UK has suffered from the Russian ban on dairy imports, and no sales to Russia have been made since 2014. The ban aside, Russia is a significant market for dairy exporters. The OECD-FAO projections predict strong growth in cheese and butter imports, but milk powders will grow more slowly.

Opportunities for the UK
No opportunities exist while the ban is in place, but, should the relationship change, there could be opportunities for low value beef cuts and pork and cheese.

Beyond this list, opportunities for further investigation would include:

Lebanon

Lebanon has high levels of dairy consumption and has traditionally imported from Europe, but has also had illegal imports from Syria. Labneh, a traditional Lebanese cheese, is a central part of the cuisine. The UK exports around 2,000 tonnes of cheese and 3,000 tonnes of powders to the Lebanon.



Tunisia

Tunisia may also warrant further research for dairy products. It imports around 2,000 tonnes of cheese per annum with consumption focused on urban areas. Sheep milk–based cheeses have been traditionally produced.

APPENDIX 2

Export certification/Country tariffs

In order to export agricultural goods from the UK, an EHC is usually required. These are frequently issued on the basis that EU sanitary, phytosanitary, and veterinary standards are equivalent to UK standards.
A comprehensive list of current UK export health certificates for animals, animal products, and germplasm is available at the link below:
www.ukecp.com

For dairy products please refer to:
www.gov.uk/government/uploads/system/uploads/attachment_data/file/570497/ehc-available-list.pdf

The EHCs are sorted alphabetically by Commodity Sector, then by Country, then numerically by EHC number.

In addition, tariff data for importing and exporting out of the EU can be found here:
madb.europa.eu/madb/indexPubli.htm

GLOSSARY

Abbreviation	Definition
ASEAN	Association of South East Asian Nations
CAGR	Compound Annual Growth Rate, the mean (average) rate of growth over the defined period
CETA	Comprehensive Economic and Trade Agreement between EU and Canada
ChAFTA	China-Australia Free Trade Agreement
CWE	Carcase Weight Equivalent
DW	Dead weight
ECM	Energy Corrected Milk
ECOWAS	Economic Community of West African States
EU	European Union
FMD	Foot and Mouth Disease
FOB	Free On Board
GDP	Gross Domestic Product (GDP) is a monetary measure of the market value of all the finished goods and services produced within a country's borders in a specific time period
GDP per capita	The GDP of a country divided by the population of that country as of 1 July that year
FTA	Free Trade Agreement
IGD	Institute of Grocery Distribution
IMF	International Monetary Fund
LW	Live weight
MENA	Middle East and North Africa
MERCOSUR	Mercado Común del Sur trading bloc
MFN	Most Favoured Nation
MinFAL	The Ministry of Food, Agriculture and Livestock in Turkey

Abbreviation	Definition
NAFTA	North American Free Trade Agreement
OECD-FAO	Organisation for Economic Co-operation and Development – Food and Agriculture Organization
PGI	Protected Geographical Indication
PPP	Purchasing Power Parity (PPP) is a measured by finding the value (in US$) of a basket of consumer goods that are present in each country. This then allows for comparison of GDP in terms of what it can purchase in each country. This is expressed in US dollars.
PPL	Pence per litre
RCEP	Regional Comprehensive Economic Partnership
Real GDP	Real Gross Domestic Product (GDP) is a macroeconomic measure of the value of economic output adjusted for price changes (ie inflation or deflation)
SE Asia	South East Asia
SMP	Skimmed Milk Powder
SPS	Sanitary and Phytosanitary Standards
TPP	Trans-Pacific Partnership
TRQ	Tariff Rate Quota
ROW	Rest of World
UAE	United Arab Emirates
UK HMRC	UK HM Revenue and Customs
UN	United Nations
USDA	US Department of Agriculture
WMP	Whole Milk Powder
WTO	World Trade Organisation

AUTHORS

Martin Doherty
Data and Analysis Manager

Lionel Colby
Consultant

Chris Gooderham
Lead Analyst

Sarah Baker
Senior Analyst

With thanks to:

David Swales, Dave Aldridge, Phil Bicknell, Tom Hind, Jean-Pierre Garnier, Lucy Randolph, Jonathan Eckley, Mark Topliff, Carol Davis, Phil Hadley, Mick Sloyan, Luke Crossman, and Duncan Wyatt.

AHDB

AGRICULTURE & HORTICULTURE DEVELOPMENT BOARD

Agriculture and Horticulture Development Board
Stoneleigh Park
Warwickshire
CV8 2TL