Opportunities ahead:

Why the UK dairy industry can prosper from increased export demand

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Kite Consulting | October 2021

Introduction

There is considerable noise about all the apparent reasons to reduce dairy consumption – largely promulgated by those who are selling dairy alternatives, or those with a vested interest in knocking dairy, such as the vegan lobby. Of course, there is also negativity from those with genuine concern about the impact of dairy consumption on climate change. All this sometimes leads to a feeling that dairy is a declining, dying industry.

But the facts are somewhat different. Whilst there are justifiable concerns about the climate impact of ruminants, the industry is working hard to reduce its carbon footprint and has the potential to play a positive role in climate change mitigation through soil carbon sequestration and improved biodiversity on farms. It is also easy to see the propaganda from plant-based alternatives and from vegan activists as more far reaching than it actually is.

This document aims to uncover what is really happening in dairy markets and where the opportunities lie for dairy in the future. What it shows is that far from being a dying industry, the global opportunities for dairy are significant. While dairy consumption may be stable, or at best growing slowly in most Western countries, the global demand for dairy continues to increase at a rate of around 2% per year – or around 18 bn kgs of milk. That's equivalent to the entire milk production output of a country like New Zealand.[1]

The growth opportunity for an efficient dairy-producing country like the UK – which produces milk with a carbon footprint half of the global average - is therefore enormous. [The global carbon footprint of milk is around 2.5 kg CO2e / kg milk, while the UK average is around 1.25kg CO2e / kg milk. Companies like Arla with an active and progressive on-farm reduction programme have a footprint as low as 1.13kg / milk.]

The objective of this report is therefore twofold:

1) To answer the question of how dairy imports from major exporters have developed and may develop in dairy-importing countries, using economic growth as a proven proxy indicator for future dairy market growth

And;

2) To assess the opportunity for dairy exporters such as the UK to expand their exports by serving these dairy-importing countries in Asia, Africa and Central and Latin America.

1) IFCN

Setting the scene -
The UK immediately post Brexit: a Net-Importing Nation

The UK is 85% self-sufficient[2] in dairy products with net imports of approximately 2.5 billion kg of LME [Liquid Milk Equivalents, and the units used in this report (see Methodology)]. These imports mainly consist of cheddar, continental European cheeses, and yoghurt. In export terms, the UK mainly exports UK speciality cheeses and milk powders. Since the UK officially left the EU in January 2021, UK dairy exports to the EU-27 have fallen, as have imports from the EU, but to a lesser extent.

The implication is greater 'import substitution' at the expense of UK exports, meaning in dairy terms, that the UK is even more of an island nation than it used to be. Additionally, for at least a decade, the demand volume for UK liquid milk has been declining but this is compensated for by the growing UK cheese market, resulting in modest growth of domestic dairy consumption of around 1% per year.

In recent times, there has been record growth in UK domestic dairy consumption through retail channels – AHDB figures show that 2020 saw 11.4% value growth. Whilst this is hugely positive, it is expected to be a transient change in demand because of COVID lockdown changing consumption patterns. What's more, this figure relates only to retail sales and does not consider any volume losses that might have been seen in out-of-home and hospitality consumption, but it shows that dairy is still in demand from UK consumers.

"When it comes to overseas markets, non-EU export opportunities for the UK face significant challenges, as major EU-27 dairy exporters (such as Ireland, Denmark, Netherlands) have a stronger historical presence in export markets than the UK. Thus, UK dairy exports have been more modest, and based on higher value speciality products such as cheese, rather than commodities such as milk powder, despite what this report will show to be an opportunity. There are, however, political moves in play to help address this and a new emphasis from Government to improve the situation."

"Post Brexit, the UK is even more of an island nation than it used to be."

2) Kite Consulting LLP work on "Review of the UK Dairy Processing Industry"

The supply picture of the world's dairy market is changing fast

The major European dairy exporting countries, as well as the major dairy exporter New Zealand, will see an increase in regulatory pressures on their dairy sector, not least through environmental pressures. The EU has passed a law (The Green Deal: Fit for 55) that now forces its member states to cut GHG-emissions by a minimum of 55% by 2030 compared to 1990, which will impact on livestock farming.

Many politicians and their constituents may target sectors such as dairy as part of their GHG emissions reduction programmes, particularly since such emissions for the major dairy exporting countries can make up 10% to 20% of a country's total GHG-emissions yet generate only 1-2% of GDP.

However, from a rational, global standpoint, producing dairy efficiently in today's exporting countries that meets the future global demand may be the smartest thing to do from an environmental perspective. This is because GHG-emissions per unit of output are generally lowest in these countries. Nevertheless, it is illusory to expect national GHG-reduction targets to be based on such rational arguments so it must be concluded that EU/NZ dairy output for third-country exports may well decline towards 2030.

"Producing dairy efficiently in today's exporting countries that meets the future global demand may be the smartest thing to do from an environmental perspective because GHG-emissions per unit of output are generally lowest in these countries."

Report Methodology

1) Ninety dairy-importing countries with a population of nearly 5 billion people (about two-thirds of the world population) were selected to represent the 'world market for dairy products'. (The countries involved, and selection criteria for them, are in the Appendix.)

2) Population, economic and trade statistics have been collected and analysed for the period 2011 – 2019. Data trade data have been acquired from Dairyntel, a dairy statistics agency linked to the Dutch Dairy Board.

3) Dairy consumption has been simplified to consist of imports of SMP, WMP and cheese, but excludes other products like Fat-Filled Milk Powders (FFMP), Infant Nutrition, Evaporated Milk, UHT milk, Casein, milk protein concentrates, butter, and sports nutrition products. One reason for this is that trade data for the likes of FFMP is limited. Hence, the opportunity of growth in the world dairy market outlined in this report understates the real opportunity.

4) The data is expressed in Liquid Milk Equivalent [LME] using a fixed conversion key. i.e. the report doesn't refer to the actual tonnes of SMP or cheese, but to the amount of raw milk that has gone into making these products.

5) Dairy demand has been assessed on well-established principles and can be found in the Appendix.

"The opportunity of growth in the world dairy market outlined in this report understates the real opportunity."

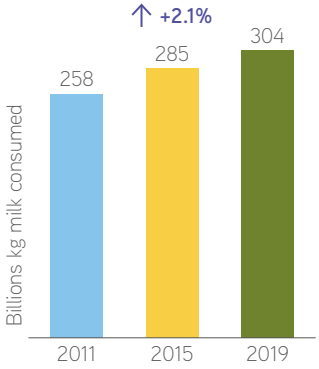
"Total dairy consumption in importing countries increased from 2011 to 2019 by an amount not far off the total production volume for New Zealand for two years."

Findings and Facts

- In the period 2011 – 2019 the population of the 90 countries analysed increased by 1.3%, equivalent to 500 million people. To put that in context Europe has a total population of 750m people.
- The average combined GDP is estimated to have grown by 4.4% per year, using Purchasing Power Parity as a definition, as ultimately dairy is a consumer good in importing countries.
- Total dairy consumption increased by 2.1% and 46bn kgs from 2011 – 2019, from 258m tonnes to 304m tonnes LME.
- Import growth was 4.4% per year, which was faster than local production growth of 1.8%. In 2019, imports accounted for 13bn (26%) of the total consumption growth, and 17% of total supply.

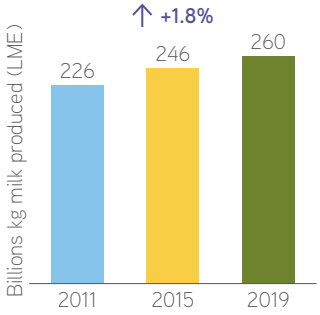
Proportion of total supply met by imports	
2011	14.2%
2015	16.3%
2019	17.3%

Combined dairy consumption of the 90 Dairy Importing Countries' Economies in time (liquid milk equivalent)



- Average dairy consumption per capita amounted to some 62kg per year in 2019, but the least economically developed countries had less than half of that because locally produced dairy is a luxury for consumers, and imported dairy is essentially unaffordable.
- Total dairy production in the 90 countries increased from 226 to 260 m tonnes (billion kg) LME, representing an annual increase of 1.8%.

Combined local dairy production of the 90 Dairy Importing Countries' Economies in time (LME)



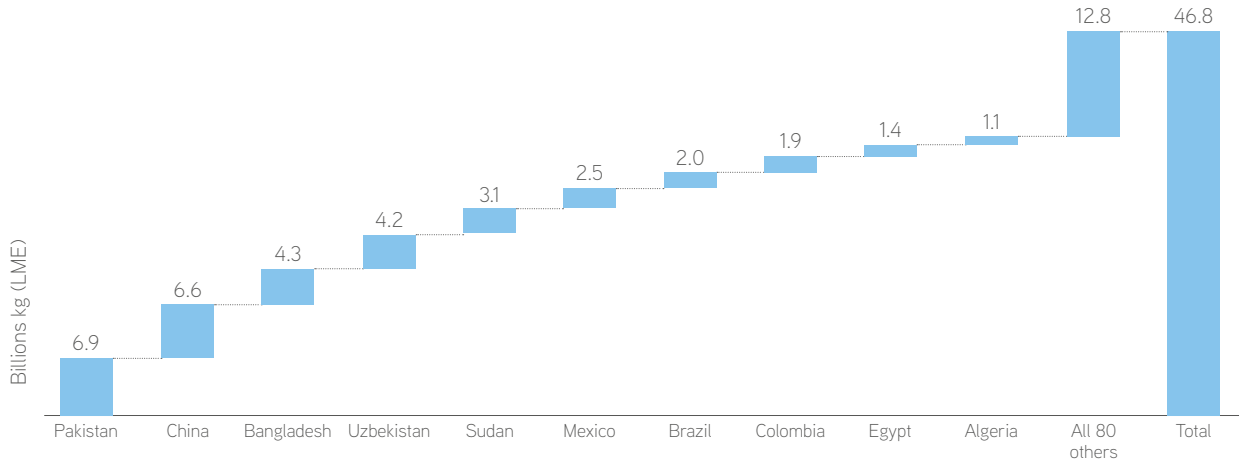
- The self-sufficiency of the countries dropped from 87.6% to 85.5% from 2011 to 2019, with the self-sufficiency for importing countries with a GDP of more than US$25,000 per head capita dropping from 60 to 55%.
- The amount of dairy imported per capita in 2019 looks to be proportional to consumer spending power, leading to two key conclusions:

1) Dairy is imported mainly by mid-income to highly economically developed countries with a GDP greater than US$10,000 per head (purchasing power parity);

2) Despite domestic dairy development growth initiatives pursued by importing countries, dairy demand growth exceeds local growth. Thus, these importing countries show a declining self-sufficiency over time, and their growing dairy appetite can only be met by more imports. In fact, when we analyse self-sufficiency over time and by GDP cluster, a trend emerges where self-sufficiency looks to decrease as economic development increases.

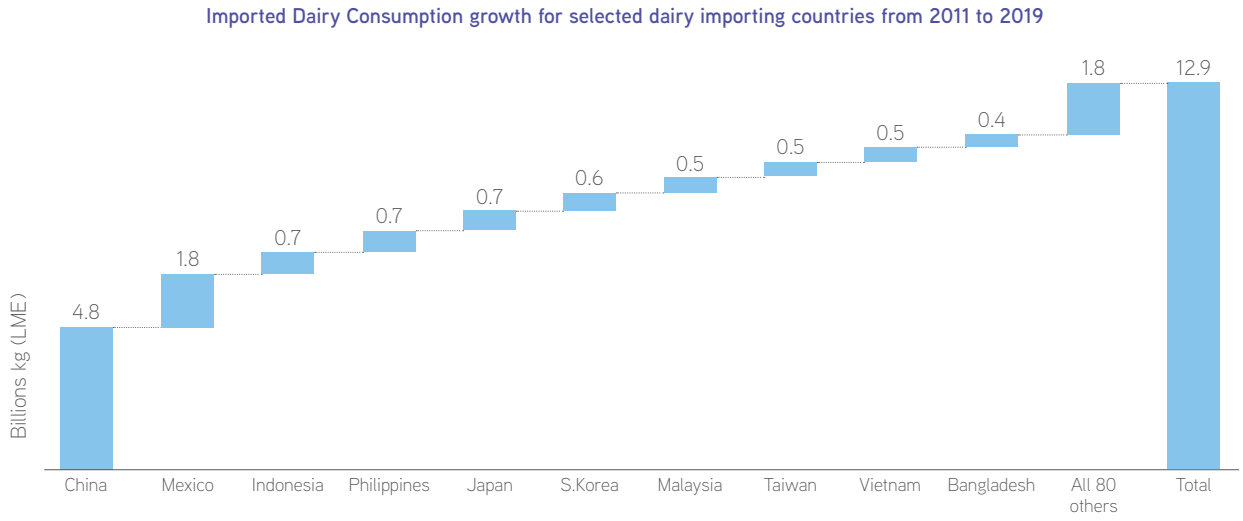
- Just ten of the 90 dairy importing countries – representing **49%** of the combined 2019 population – dominated the total consumption growth over the 2011-2019 period, accounting for **73%** of the absolute total dairy consumption growth of the combined countries. It should be reiterated that total dairy consumption is underestimated as exports of various dairy products (FFMP, evaporated milk etc.) have not been included:

Total Dairy Consumption growth for 90 selected dairy importing countries from 2011 to 2019*



"When we analyse self-sufficiency over time and by GDP cluster, a trend emerges where self-sufficiency looks to decrease as economic development increases."

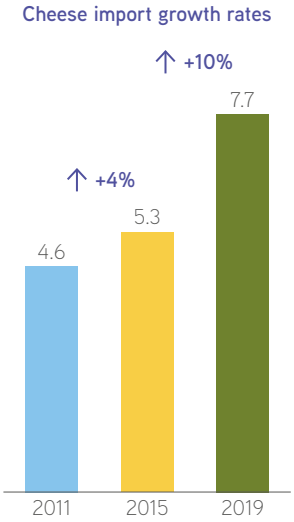
- Again, ten of the countries accounted for 86% of the imported dairy consumption growth between 2011 and 2019, with China alone responsible for 37% of this growth:



"Ten countries accounted for 86% of the imported growth, with China responsible for 37% of it."

- An assessment of the mix of imported dairy products shows that the more economically developed a country is, the more cheese it will import. For example, in 2019, 80% of all cheeses were imported by 25% of the countries, and nearly all of them with a GDP greater than US$15,000 per head (purchasing power parity). This trend looks as if it will accelerate.

A further breakdown shows that 80% of cheese imports go to countries with a GDP of over $15,000 per head (purchasing power parity), and, overall, imports of cheese have increased significantly over the period, by 4% between 2011 and 2015, and then by 10% from 2015 to 2019:



- In value terms, the value of dairy imports of SMP, WMP and cheeses alone by the 90 countries increased from US$14.1bn in 2011 to US$16.5bn in 2019, a compound annual growth rate of 2.0%. Adding the value of butter, butter oil and butter paste imports adds another US$2.4 bn value to this amount. The value growth is largely because of increased demand due to population and economic growth and considers a reduction in the unit price of dairy because of productivity gains over time. Despite this, the outlook suggests that the combined import value of dairy to these 90 countries from 2019 until 2025 will continue to grow between US$500m and US$1bn each year, presenting a significant opportunity for dairy exporters. The data also suggests that value growth will come entirely from markets with a per capita GDP >US$10,000 PPP.
- The outlook indicates that the 90 importing countries will likely require larger import volumes as the decade progresses, at a projected 5.6% per year from 2019 to 2025 and equivalent to 3bn kg LME / year. Much of this will be in milk powders and especially cheese. The growth will contrast with the volume stability of the saturated Western dairy markets.
- Western dairy farmers and processors, including those in the UK, are likely to consider these markets as their sources of future, attractive business growth so far as their environmental constraints allow them. Indeed, this is already happening with an increasing number of UK processors exploiting export markets.

"The richer the country, the more cheese it imports."

"Western dairy farmers and processors, including those in the UK, are likely to consider these markets as their sources of future, attractive business growth."

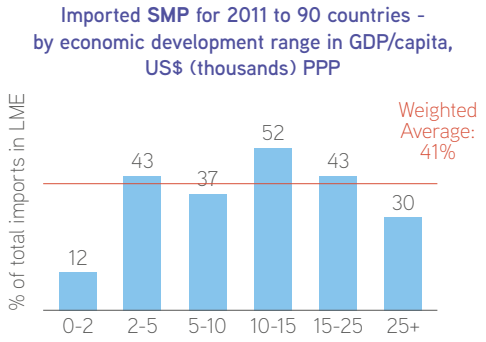
What's driving the growth?

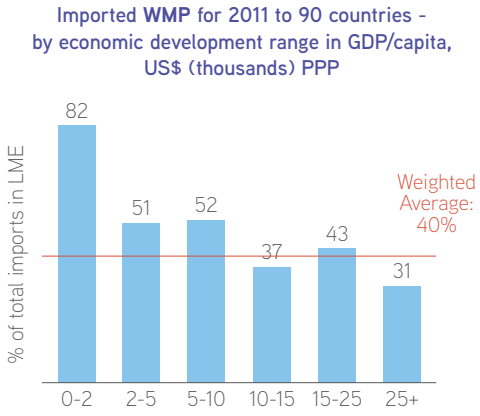
In 2011, milk powders accounted for 81% of imports, when expressed in LME terms, split equally between SMP and WMP, with cheese at 19%.

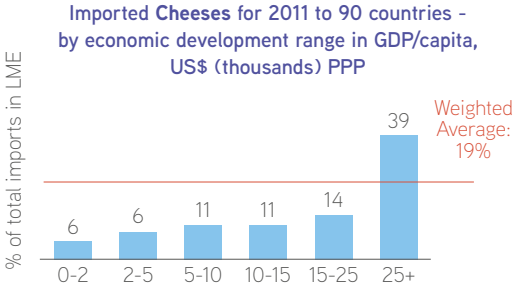
By 2019, the picture had changed slightly, with powders representing 79% but with the balance between SMP and WMP changing markedly to 47% and 32% respectively. However, the fact that WMP volume growth CAGR is so much lower than that of SMP seems to support the hypothesis that WMP has been substituted by Fat Filled Milk Powders (FFMP), with that product 'eating the WMP growth'.

Cheese had increased to a 21% share. As the graphs below indicate, cheese imports remain a preserve of wealthier, developed economies, while the lowest income countries favour WMP imports ahead of SMP:

2011

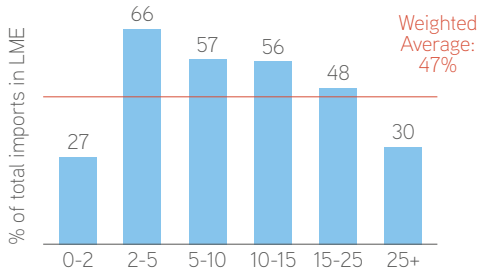




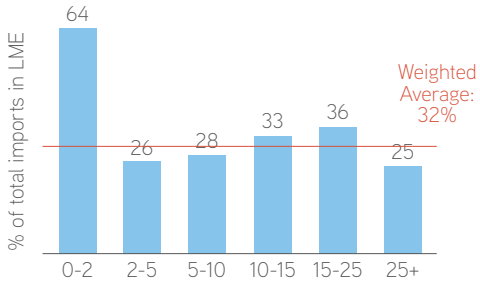


2019

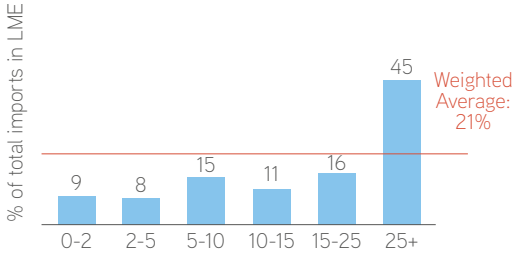
Imported **SMP** for 2019 to 90 countries - by economic development range in GDP/capita, US$ (thousands) PPP



Imported **WMP** for 2019 to 90 countries - by economic development range in GDP/capita, US$ (thousands) PPP



Imported **Cheeses** for 2019 to 90 countries - by economic development range in GDP/capita, US$ (thousands) PPP



The relatively sluggish growth in WMP may be explained by substitution from WMP to FFMP. This cannot be quantified due to the lack of FFMP trade statistics for the period before 2020. It is hypothesized that this substitution happened especially in less economically developed countries. Hence the overall dairy import growth in these 90 countries has likely been underestimated. Given the incomplete trade statistics it is challenging to estimate how much more dairy is imported by the 90 countries – and possibly by smaller countries that are also net importers but that have not been included in this study. We know that from all WMP and SMP exports by the major exporters (including intra-exporter trade), 92% is imported by these 90 countries. We also know that FFMP exports from the EU alone amounted to some 3 bn kg LME in 2020. All in all, the total imports by all net dairy importing countries may well be up to 40% higher than those analysed here.

"It is fair to estimate that total imports by these 90 countries have amounted to numbers possibly up to 40% higher than those analysed here."

Discussion

This analysis shows that demand for dairy globally, using historic correlations, is likely to increase with some 3 bn kg/y LME in current dairy-importing countries. The implicit assumption underpinning this growth is that such growth will be realized by current dairy exporting countries, because their output grows in absolute terms and their domestic markets may well be stagnant in volume uptake. Whether between now and 2025, the volume available for exports in the current dairy exporting countries will indeed increase with 3 bn kg/year is, however, rather uncertain. This milk volume may never be produced when environmental policies are pursued that disenable production growth. Such policies may either address local-for-local issues e.g., the reduction of nitrogen-compounds and/or phosphate emissions, or climate change or both. Policies may not even lead to a standstill of dairy production in exporting countries, it may even lead to a reduction. The past has shown that when dairy demand is, usually temporarily, not met by dairy supply, milk (component) prices may easily increase with 50% or more. When the impact of environmental policies in all major dairy exporting countries together may be a standstill or even a decline of dairy products available for exports, such elevated milk (component) price levels may become the new normal. Such higher prices may not automatically improve the livelihood of dairy farmers in dairy exporting countries, as the latter will likely be faced with higher cost of production related to stricter environmental policies, absorbing their higher milk cheque returns. The unintended consequences of dairy exporting countries pursuing stricter environmental policies, however commendable, are as follows:

- milk (component) prices will increase sharply and structurally
- imported milk products, already hard to afford to the many in most dairy importing countries today, will increase more rapidly in price than consumer spending power
- dairy demand will increasingly either be met by local – for – local dairy production in current dairy importing countries or will be lost
- dairy demand that is lost will mean that due to environmental policies in dairy exporting countries the UN Sustainable Development Goal of providing affordable highly nutritious food to all may be jeopardized. To put it bluntly, nutrition for Africa will be sacrificed to meet national climate change targets in dairy exporting countries.
- dairy demand that is met by an increased local-for-local production will typically have a CO2 footprint of 2.5 times or more per unit of nutrition than the dairy production in the most climate-efficient-farms in the world's major dairy exporting countries. So, a shift of dairy production from the current exporting countries to local-for-local dairy farming in the current importing countries will likely result in a higher overall CO2 emission globally.

Given the clear global demand opportunity for dairy, dairy exporting countries may wish to reconcile the UN SDG goal of Affordable Nutrition to all with the aim to minimize climate change. Achieving the optimum when pursuing both targets simultaneously and coherently may well lead to a refreshed look at the role of dairy farming in the current exporting countries. This should not come as a surprise. There is a reason that the current exporting countries do export indeed. These are the countries' that globally are most favourable (climate, soil…) to produce nutritious (dairy) food. The UK is among them. Moreover, it has regained the independence to reconcile the above aims concurrently. Hence, UK dairy farming may well have perspectives that other countries do not have.

Conclusion

The analysis demonstrates that while GDP is not immediately linked with increased total dairy consumption on a per capita basis in dairy importing countries, it is more clearly linked with an increased amount of imported dairy products consumed as local production systems are unable to keep up with the rate of increased demand. In short, as emerging economies grow, demand for dairy increases and self-sufficiency declines over time.

The import consumption growth is dominated by the more developed of the countries, and within that by individual countries like China and Mexico. Less developed countries import a higher proportion of milk powders, while more developed countries increasingly pursue higher value imports like cheese. This could be a major opportunity for the UK with its cheese-making heritage.

In our outlook to 2025 we expect world dairy market demand growth will require a 28% increase in imports compared to 2019.

For the 90 countries used for the analysis, by 2025 we expect 37% of the demand growth, equivalent to around 17bn kgs of milk, to be met by imports due to demand growth outstripping local supply capacity growth. To put that in context, 17 bn kgs is more milk than the UK will produce in a year. What's more, this is not just volume growth – our analysis suggests that value growth of between US$500m and US$1bn each year until 2025 is likely for SMP, WMP and cheeses, presenting a significant opportunity for dairy producers.

What this means is that there are opportunities ahead for the dairy industry, particularly in countries like the UK that have a good track record in terms of animal welfare and traceability and where farmers and dairy processors are actively working to address environmental concerns around dairy production. Indeed, whilst major net exporters are facing increased environmental volume constraints, there is the opportunity for the UK, with strong activity in this area, to access significant export growth, if it is allowed to innovate to address carbon emissions and local environmental concerns. This will require innovation in the processing sector, to enable UK producers to access growth export markets, and it will require political support for the UK dairy industry as it transforms and adapts towards a high welfare, net zero and nature-friendly future.

Appendix

Selecting the 90 countries

The 'Third Countries' who represent potential export markets for this analysis are 90 countries across three continents (full list of countries is given below), with the criteria for inclusion as follows:

- Each has a population exceeding 5 million.
- Each features in the SMP, WMP and/or Cheese export trade data from major dairy exporters.
- Each is in Asia, Africa or Central and Latin America.

The total population in these countries combined equals 4.9 billion people in 2019. India has not been included as India is both at times a dairy importer and a dairy exporter, so including India may confuse conclusions. In 2019, the 90 countries combined imported 92% of all SMP and 92% of all WMP that the major dairy exporting countries/blocks together exported (including the trade among them!). In other words: the 90 countries together are believed to represent a comprehensive picture of the world dairy trade.

Because of the inherent volatility of dairy markets, the time series we are analysing is constituted by three time periods, which each represent a three-year average for smoothing purposes: 2011, 2015 and 2019. For example, 2011 import data is an average of 2010, 2011 and 2012 data; 2015 is an average of 2014-16 data; and 2019 is an average of 2018-2020.

For each of these 90 countries, GDP/capita in purchasing power parity (PPP) has been collected in US$ for each of the years 2011, 2015 and 2019 and the size of the locally produced raw milk pool in 2011, 2015 and 2019 have also been collected.[3]

The 'Third Countries' data have been grouped into economic clusters for some parts of the analysis due to the considerable differences that exist between the 90 countries and the 'noise' inherent in reporting all data for all countries. The six clusters for analysis are defined by per capita GDP (PPP) in US$ thousands (for each time period: 2011, 2015 and 2019) in the following ranges:

Cluster Group	US$ (thousands) GDP / capita in PPP terms
1	0-2
2	2-5
3	5-10
4	10-15
5	15-25
6	25+

3) Source: KNOEMA for GDP/capita in PPP US$ and CIA.gov for population sizes. For a few countries (e.g., Syria) where KNOEMA does not provide GDP/capita data, estimates have been made.

Selected 90 dairy importing countries

Afghanistan	Japan	Sri Lanka
Algeria	Jordan	Sudan
Angola	Kenya	Syria
Bangladesh	Korea (Democratic Republic of)	Taiwan (Prov. of China)
Benin	Korea (Republic of)	Tajikistan
Bolivia	Kuwait	Tanzania
Brazil	Kyrgyzstan	Thailand
Burkina Faso	Laos	Togo
Burma (Myanmar)	Lebanon	Tunisia
Burundi	Liberia	Turkmenistan
Cambodia	Libya	Uganda
Cameroon	Madagascar	United Arab Emirates
Central African Republic	Malawi	Uzbekistan
Chad	Malaysia	Venezuela
China (inc. Hong Kong)	Mali	Vietnam
Colombia	Mexico	Yemen
Congo (Democratic Republic of)	Morocco (inc. Ceuta, Melilla	Zambia
Congo (Republic of)	Mozambique	Zimbabwe
Costa Rica	Nepal	
Cote d'Ivoire	Nicaragua	
Cuba	Niger	
Dominican Republic	Nigeria	
Ecuador	Oman	
Egypt	Pakistan	
El Salvador	Panama	
Eritrea	Paraguay	
Ethiopia	Peru	
Ghana	Philippines	
Guatemala	Qatar	
Guinea	Rwanda	
Haiti	Saudi Arabia	
Honduras	Senegal	
Indonesia	Sierra Leone	
Iran	Singapore	
Iraq	Somalia	
Israel	South Africa	

Calculating Dairy Demand

Measuring Dairy Demand is complex for any country. This is especially so in some of the Third Countries for which data are often neither timely, nor complete or accurate. Thus, assumptions and methodological choices have been required to find the right balance between accuracy and effort. In this report, the following assumptions and choices have been made:

- It has been assumed that a third country's (for example: Vietnam) dairy demand in a year consists of:
- Dairy imports (in LME, bn kg)
- Local raw milk production (in LME, bn kg)[4]

So, we calculate **Dairy Demand = Local Dairy Production + Dairy Imports from Main Exporters,** in real time. 'Dairy Imports from Main Exporters' is calculated on an annual basis by aggregating monthly data from **EU-28, US, New Zealand, Australia, Belarus** and **Argentina** for each year 2010-2020 (hence UK inclusion in EU-28). Therefore, it does not account for imports from other countries (e.g. Canada) or 'missed imports' and 'missed exports' which are assumed to be relatively small and to cancel one another out. The calculation also assumes that no net stocks are built up.

Dairy imports are an aggregation of multiple dairy commodities. For reasons of practicality, we choose to include only the three major dairy import/export products (SMP, WMP, Cheeses). Product categories like Infant Nutrition, Evaporated Milk, Liquid consumer-packed Milk and Fat-Filled Milk Powder have been ignored. For the last category, this is the consequence of lacking trade statistics. It is only since 2020 that Fat-Filled Milk Powder has been defined a separate trade data category. The implication of only taking the 'big three' flows is that the outcome of the research work is conservative and **underestimates** the relevance of dairy exports from major exporters to importers. Real flows and probably also export volume growth rates from major exporters to dairy importers are **larger** than this analysis accounts for.

Dairy Imports (volume) = Imports volume of SMP + Imports volume of WMP + Imports of All Cheeses

For SMP and WMP respectively, all SMP and WMP types listed in export statistics have been added up. So, where applicable, both consumer-packed as well as bulk-packed are included. Similarly, the volume of All Cheese exported each year to, e.g., Vietnam has been added-up, regardless of the differences in cheese type. Hard cheeses (10 – 12 kg LME/kg product), semi-hard cheeses (9.0-9.5 kg LME/kg product), processed (6 kg LME/kg) and soft cheeses (4 kg LME/kg) are all imported in various mixes to various 'third countries'. As an average, we estimate the overall mix to result in an LME-equivalent of 8 kg LME/kg.

To sum up the dairy imports into Liquid Milk Equivalents, the following proportionality constants have therefore been used:

1 ton SMP equates to	10 ton LME
1 ton WMP equates to	7.5 ton LME
1 ton Cheese equates to	8.0 ton LME

Finally, when analysing import data, we have taken a product- and exporter-focus as import statistics of many third countries were considered less reliable than export statistics from major dairy exporters.

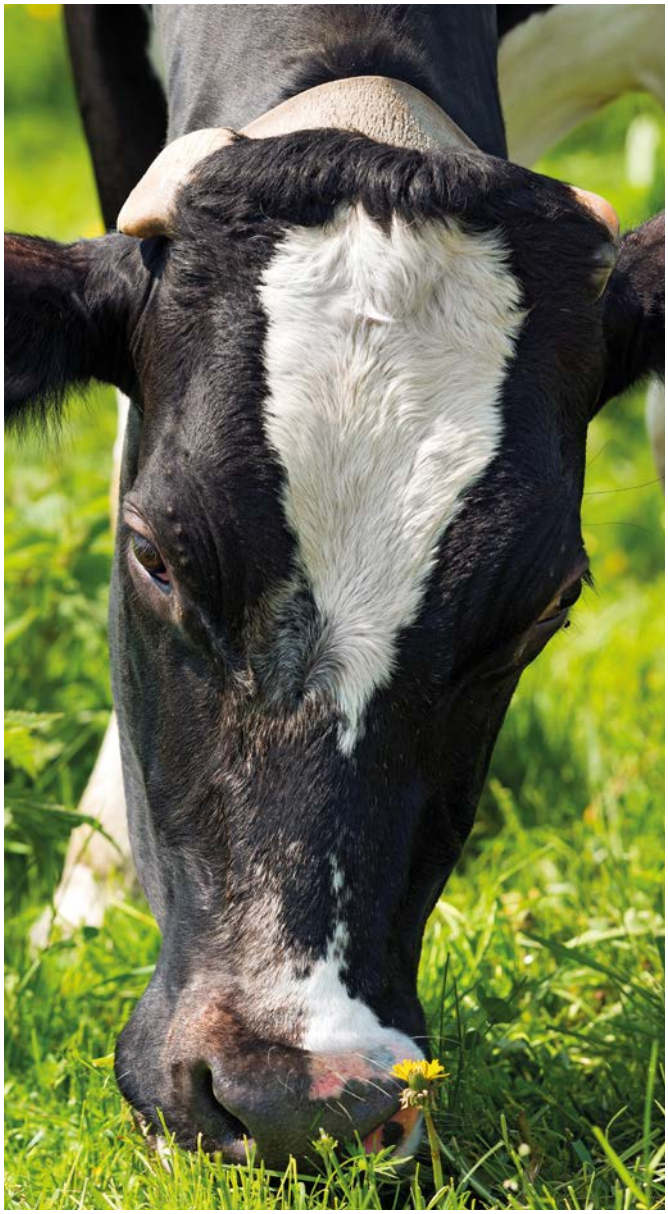
4) Source: IFCN, Trade Statistics. For those (few) "third countries" where IFCN did not report the size of the raw milk pool produced, internet-based sources have been used.

Global Demand Outlook 2025

To prepare an outlook towards 2025, the following assumptions have been taken:

- Economic development of these 90 importing countries will be 4.7% CAGR (GDP growth)[5]
- Total dairy consumption growth in these 90 dairy importing countries will be 2.4% per year (in LME-terms – as in 2011-2019 about 50% of the GDP growth)
- Local dairy production growth in these 90 dairy importing countries together will be 1.8% per year (in LME-terms – following the 1.8% trend 2011-2019); this is a conservative estimate.
- Dairy demand growth will be met by dairy supply. In other words, due to poor availability of dairy raw materials worldwide we in our modelling the future do not anticipate much higher dairy prices, resulting in lower volumes sold due to price elasticity-related consumption-drop-out effects. This is an optimistic assumption. Global dairy availability may tighten leading to higher average dairy commodity prices.
- Possibly (structurally) higher global dairy prices do not trigger an increase of local-for-local dairy production in the 90 countries. In most of the 90 countries, due to climate, capital availability and dairy farming capabilities issues, a faster growth of local production is considered unlikely.

Considering these assumptions, we expect world dairy market demand growth to necessitate a 28% increase in imports versus 2019. Export - import growth may well add up to ~ 3 bn kg of LME / year for SMP, WMP and cheeses together. In the 90 countries used for the analysis, we expect 37% (17bn kgs of milk) of the demand growth by 2025 to be met by imports due to demand growth outstripping local supply capacity growth.



5) The assumed figure is based on the figure that the IMF reported for "Emerging and Developing Economies" together in Oct. 2020, when they reported a 4.7% annual growth