EU-Japan Centre
for Industrial Cooperation
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DAIRY IN JAPAN

An Analysis of the Current Market and its Opportunities for European SMEs

BY PAUL VAN DER PLAS

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About the Author

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Executive summary

The following report is the result of a six month research carried out under the *MINERVA Fellowship Programme* at the *EU-Japan Centre for Industrial Cooperation* in Tokyo. The research comprised a comprehensive analysis of the current Japanese dairy market and the role of EU exports within it. The report will offer a detailed insight in domestic production, imports, related industries and relevant market characteristics. Second, the report will provide a basic understanding of the degree to which EU dairy exports to Japan are covered by the recently signed Economic Partnership Agreement.

EU agrofood exports

Agrofood exports, reaching a record €138 billion in 2017, are of great economic importance to the European Union. Japan, the 5th largest market for EU agrofood exports, showed an 11,2% growth in 2017. The export of dairy composed €11,3 billion, or 8,3%, of the EU's 2017 agrofood exports, which is a 15,8% increase over the year before.

Traditionally dairy had virtually no place in the Japanese diet. Although due to western influences, consumption of milk; butter; cheese and other diary has become more and more common ever since the end of the second Wold War. However, the domestic dairy sector has not been able to keep up with the rising demands. Due to the aging population, the number of dairy farms (and subsequently, the production of milk) has been in decline for several decades. The resulting decline in self-sufficiency has led to Japan becoming the third largest importer of dairy products in the world.

The Japanese dairy sector

Due to the relative high price of raw milk, it is difficult for the Japanese dairy industry to be competitive on anything other than fresh dairy like drinking milk and yoghurt (even with the tariffs currently in place).

Cheese is one of the dairy products that has quickly gained popularity in recent years. While still well below the European average, the per capita consumption of cheese has increased with 12,4% in the four years up to 2017. As most cheese sold in Japan come from abroad, imports have significantly increased, reaching 273 metric tons in 2017, a 6% increase over the previous year. The main origins of foreign cheese sold in Japan are the USA (12%), New Zealand (23%), Australia (30%) and the EU (34%). Of the 92.000 tons of imported cheese in 2017 the majority originated from the Netherlands (31%), Denmark (19%), and Germany (16%). The main uses for the imported EU cheese is either direct retail sale, or for the production of processed cheese.

The Japanese butter market however, is a much different story. The country has dealt with regular shortages in recent years (as did many other countries) resulting in exorbitantly inflated prices. What complicates matters even further is the fact that butter imports are regulated through government purchases (ALIC) and do not necessarily follow the market demand. Nevertheless, in 2017 Japan still imported 7,9 thousand tons of butter, worth ¥5 bln. of which 94% was imported by ALIC. The main origins of 2017 butter import were New Zealand (51%) and the EU (47%). Within the EU, the main countries of origin were the Netherlands (50%), Germany

(23%), and France (18%). The majority of imported butter finds industrial use (77%), in particular the production of confectionary and processed fats.

Similar to butter, skimmed milk powder (SMP) imports are partially regulated through ALIC imports. Generally, Japan imports about one fourth of its consumed SMP. Due to an exceptionally high ALIC purchase, the 2017 imports totalled notably higher than the year before, however, this does not necessarily reflect the actual demand as the per capita consumption has been relatively consistent. The majority of the 2017 SMP imports came from New Zealand (42%), the USA (18%), Australia (16%), and the EU (17%). Within the EU, Belgium was the largest exporter, responsible for 56% of the total volume. The main uses for imported SMP are the production of milk beverages, milk formula, processed milk and ice cream. Just as SMP, whey is a dairy product mainly used for industrial processes. Unlike SMP however, Japan only produces 30% of the annually consumed whey and, in recent years in particular, imports have increased significantly. The 57.000 metric tons imported in 2017 was a 146% increase over 2016, the majority (64%) was imported within the quota for feeding purposes. Japan's main sources for whey in 2017 were the USA (31%), Australia (16%), and the EU (26%). Within the EU most whey was imported from Germany (32%), France (19%), and the Netherlands (15%).

Lactose is another dairy product that is used in a wide variety of industrial processes. However, as there is no domestic production, Japan relies solely on imports to fulfil its lactose demand. An estimated 75% of lactose is used in the food manufacturing industry, most of which in the production of baby formula and confectionery. The lactose not used for food is either used for pharmaceutical purposes (20%) or cattle feed (5%). The majority of the in 2017 imported lactose came from the USA (56%) and the EU (35%). Within the EU most lactose originated from Germany (62%) and the Netherlands (28%).

When using the 2017 import data as an indication of coverage by the EPA, it becomes quite clear that, in the case of cheese, the agreement will cover a major part of EU export to Japan. About 82% of the 2017 cheese exports to Japan consist of tariff lines that are included in the EPA and will benefit from slashed tariffs and/or increased quota quantities. For the other commodities covered in this report it is not possible to make a similar analysis of exports. For Butter, SMP and whey at least a large part of imports will still be through ALIC purchases after the EPA takes action. The benefits offered by the agreement (at least in the first years after taking action) are not to the extent that it would be reasonable to assume much to change. In the case of lactose, the situation after the agreement takes action will most likely stay the same as the tariffs were already at 0%. However, while not all exports are likely to benefit (right away) from the tariff reduction and exclusive quotas, an important aspect of the EPA was improvement in regard to non-tariff measures (NTMs), which will directly or indirectly benefit all exports.

Relevant industries

The Japanese Food Service Industry is performing well and shows modest, but steady growth reaching ¥328 trillion worth of sales in 2017. The largest sub-sector in the food service industry is the restaurant sector, which made up for 43% of 2016 sales. Following the restaurant sector were the market for prepared meals (22%), and the industry of drinking establishments like bars and izakaya's (15%). Within the restaurant sector, Western style fast-food and family restaurants, as well as grill restaurants and bars/pubs, show increased sales. This bodes well for the dairy industry as these establishments are most likely to include dairy in their menus (opposed to ones offering a more traditional Japanese menu).

The Japanese markets for confectionary and bakery products are performing relatively well. These markets are important as they are large consumers of butter, SMP, whey and lactose. About 28,7% of the 2017 confectionary market consisted of chocolate and Western confectionary sales. The 2017 sales of bakery products (e.g., bread and pastries) showed a slight increase as well.

With ¥143 trillion in sales, the 2017 Japanese retail industry was the third largest in the world after China and the USA. A substantial 31% of these sales came from food and beverages. When it comes to sales of food items, both supermarkets and convenience stores show significant growth; food related sales from department stores on the other hand, seem to be declining. Part of the weakened sales by department stores might be due to the growing popularity of online shopping (E-commerce). The E-commerce market in Japan reached ¥165,1 billion in 2017, a 9,1% increase over the year before. With food and beverages making up for 18,1% of these sales, it seems online shopping will become a very important distribution channel for food items.

Cultural insights

An analysis of a variety of quantitative studies regarding consumer behaviour resulted in some interesting findings. While the overall attitude towards dairy products appears to be surprisingly positive, Japanese consumers seem to have certain functional motives for dairy consumption (besides the hedonic ones). Many Japanese appear to attribute various health benefits to dairy consumption. While this is definitely a positive outcome, there are some cultural aspects to be taken into account. When it comes to purchasing food, the main priorities besides price and taste are healthiness and safety. In some cases, health and safety concerns show to even outweigh price and taste. This concern for safety is particularly with regards to imported food items. This concern is something food exporters should not take lightly.

On a more positive note, besides health and safety concerns, Japanese consumers highly value variation and new experiences in their diet. This means that in average, consumers are quite willing to try new foods and dishes. The attitude towards western food is generally positive as well, although it does not seem to be regarded as particularly healthy.

One of the effects of the Japanese becoming accustomed to dairy products, is that dairy is no longer limited to Western cuisine alone. Particularly in most recent years, dairy products have been incorporated in dishes or food items that can be considered as distinctively Japanese or even in new products that are exclusive to Japan.

Recommendations to EU businesses

- *Use the EPA as an USP*
- *Emphasise the quality and safety of your products*
- *Invest in traceability*
- *Educate on the use of products that are unknown in Japan*
- *Be willing to adapt your product to the local market*
- *Be flexible and patient when building a business relationship*
- *Collaborate with the Japanese buyer/importer*
- *Be creative in finding distribution channels*
- *Participate in trade shows*
- *Capitalise on the trend of health awareness*

Recommendations to EU policy makers

- *Promote the benefits of the EPA among EU businesses*
- *Promote the benefits of the EPA among Japanese importers*
- *Promote the quality and safety of EU products*
- Monitor the usage of quotas (exclusive or general)
- *Monitor the consumer prices to see if the lower tariffs benefit the end consumer*
- *Offer special assistance to small businesses*

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List of Abbreviations

Abbreviation	*Explanation*	*Abbreviation*	*Explanation*
ALIC	Agriculture & Livestock Industries Corporation	MAFF	Ministry of Agriculture, Forestry and Fishery
B2C	Business-to-Consumer	MFFB	Moisture on a Fat Free basis
Bln.	Billion	Mln.	Million
CGE	Computable general equilibrium	MP	Milk Powder
CIF	Cost, Insurance and Freight	MRA	Mutual Recognition Agreement
CTF	Customs and Trade Facilitation	MT	Metric Tons
DG	Directorate General	NHK	Nippon Hoso Kyokai (Japan Broadcasting Corporation)
EC	European Communities	NPC	Nominal Protection Coefficient
EC	E-Commerce	NTM	Non-Tariff Measure
ECB	European Central Bank	OECD	Economic Cooperation and Development
EPA	Economic Partnership Agreement	P.C.	Processed Cheese
EU	European Union	SMP	Skimmed Milk Powder
F&B	Food & Beverages	SPA	Strategic Partnership Agreement
FCQ	Food Choice Questionnaire	SPS	Sanitary and Phytosanitary
FTA	Free-Trade Arena	TPP	Trans-Pacific Partnership Agreement
FTA	Free Trade Agreement	TRIPS	Trade Related Aspects on Intellectual Property Rights
FNS	Food Neophobia Scale	TSE	Total Support Estimate
GDP	Gross Domestic Product	UK	United Kingdom
GFR	Gross Farm Receipt	USA/US	United States of America
GI	Geographical Indication	WME	Whole Milk Equivalent
GMO	Genetically Modified Organism	WMP	Whole Milk Powder
HS	Harmonized Item Description and Coding System	WTO	World Trade Organization
IP	Intellectual Property	PSE	Producer Support Estimate
JFC	Japan Finance Corporation	YOY	Year-Over-Year
JMA	Japan Management Corporation		

Introduction

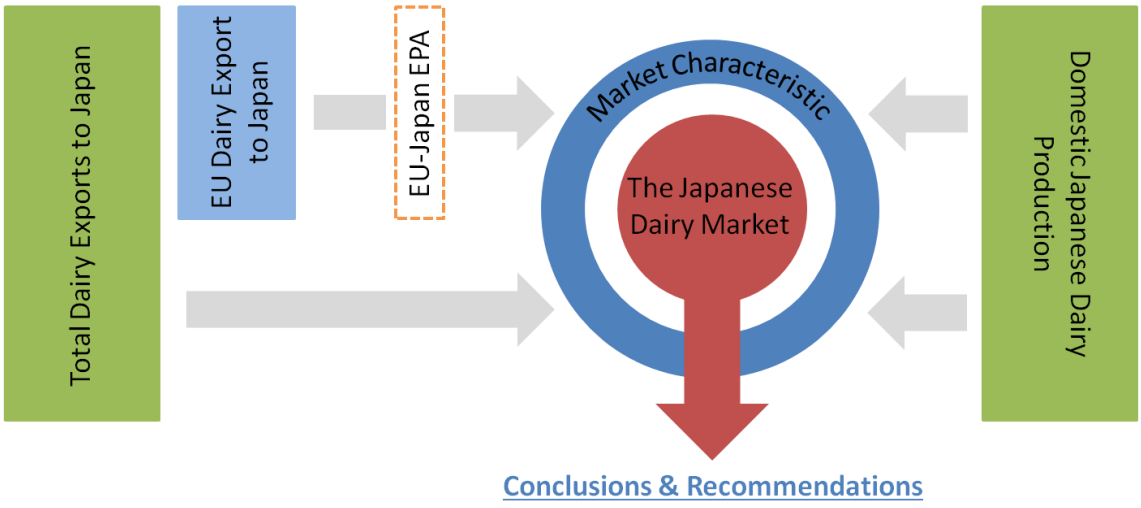
The case of the contemporary Japanese dairy market is an intriguing one. The domestic raw milk production is declining year by year, and has done so for well over two decades. Despite haven given a highly protected status, the Japanese agricultural industry (the dairy sector in particular) is comprised of a rapidly aging workforce and is struggling to find successors.

Meanwhile, the Japanese demand for dairy products has only increased, leaving the nation ever more dependent on imports. Traditionally, Japan's main sources for dairy products have been the USA, Australia, New Zealand and the EU.

EU originating dairy has generally made up for a major share of the total Japanese imports, a share that in most recent years has only increased.

With the recently signed EU-Japan Economic Partnership Agreement, European dairy trade with Japan is expected to benefit of the slashed tariffs and new quotas in particular. The EPA is speculated to result in certain changes in the Japanese dairy market, leading to an improved market climate for European exporting SMEs and Japanese importers.

The following report is the result of a comprehensive analysis of the current Japanese dairy market, including domestic production, imports, and market insights based on both quantitative and qualitative sources. Subsequently, the report gives a basic insight into what extend the EU dairy exports to Japan are covered by the recently signed EPA. These findings, and resulting conclusions, will help EU SMEs determine the viability of the Japanese market for their businesses.



A visualisation of the analysis preliminary to this report.

1. The EU-Japan Trading Relationship

The EU and Japan have a longstanding relationship dating back to 1959, when Japan's first representative to the, then EC (European Communities), was accredited[1]. Although the political and cultural facets have always been important aspects of the bond, its true foundation was of a predominantly economical nature.

To fully appreciate the magnitude and value of the recently signed Economic Partnership Agreement, the following chapter will summarise the essence and scale of the EU-Japan trade relationship. It will also offer a brief explanation to why this free trade agreement is particularly important to the European dairy sector.

1.1 EU-Japan Trade in Numbers

Japan is the EU's 6th largest trading partner, accounting for 3% of its total trade[I]. The EU's main exports to Japan (by value) are products of the chemical or allied industries, which are good for €27 billion or 24% of total export[I], as well as machinery and appliances (18%) and transport equipment (18%)[2]. Japanese companies employ over half a million people in the EU and just the export to Japan alone, creates 600.000 jobs[3]. Export to Japan has increased with 4,2% in 2017 and, by average, 2,9% annually over the four years from 2013 to 2017[4].

The EU is Japan's 3rd largest destination for goods after China and the US, representing 11% of its total trade[I]. The European market is particularly important for Japanese machinery and appliances export which, in 2016, totalled over €27 billion (or 41% of total export to the EU), as well as transport equipment (24%)[2]. The aggregate export to the EU showed an annual growth of 3,3% from 2016 to 2017, and an average annual growth of 5% from 2013 to 2017[4].

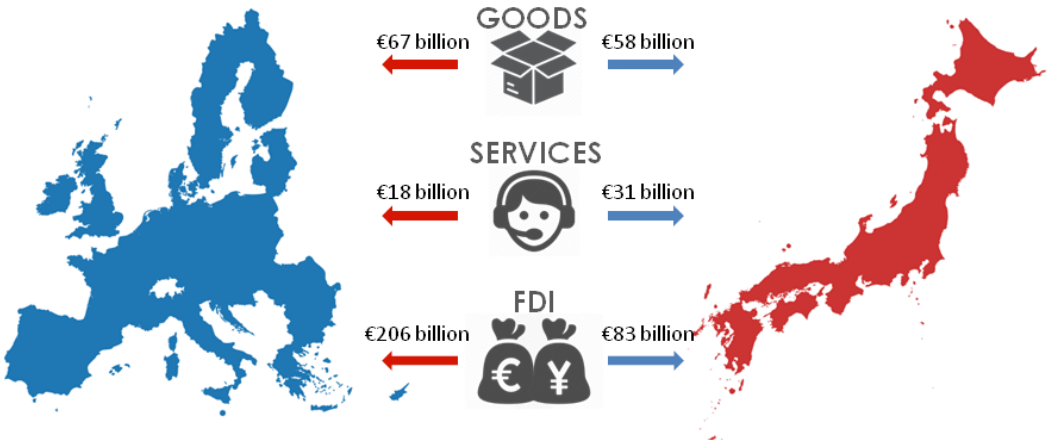


Figure 1: Bilateral trade EU & Japan 2016. Sources: Deloitte[39], European Commission (DG Trade)[4]

1.2 EU Agrofood Export

2017 was an exceptionally good year for the EU agrofood sector. Compared to 2016, the total export of agrofood products out of the EU28 grew with €6,73 billion to a €137,9 billion total, a record breaking 5,1% increase[5]. Among the fastest growing markets are the USA (6%), Russia (16%) and several Asian countries, i.e.; China (5%), Hong Kong (10%), South Korea (13%) and Japan (11%)[5]. The 2017 agrofood exports comprises 7,3% of the EU's total export (by value) and better the extra EU28 agrofood imports by €20,5 billion[6].

[I] For 2015

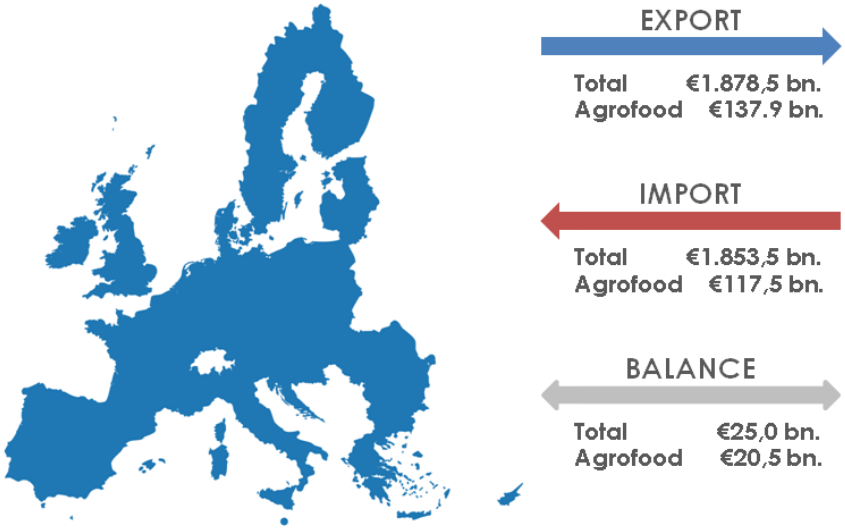


Figure 2: EU Import & Export 2017. Sources: European Commission (COMEXT) 2018[5, 6]

Japan was the EU's 5th largest market for agricultural exports in 2017 totalling €6,4 billion in value, 11,2% more than in 2016[5]. This was the third highest year-over-year increase in export value to an extra EU28 country in 2017, only to be exceeded by exports to Russia and the United States[5].

1.3 EU Dairy exports

The EU is one of the world's largest consumers of milk. However, the enormous 153 million tons of produced milk is well beyond the 136 million tons of domestic consumption, leaving the EU with a substantial surplus[7]. This excess of milk is expressed in the EU's average self-sufficiency rate of 113,7%[7].

The perpetual oversupply of milk has resulted in dairy becoming a major export product for many countries within the EU. Besides adding more than €11 billion to the EU trade balance[6], the dairy industry in Europe provides a total of 300.000 jobs, 45.000 of which are directly related to dairy exports[8]. The European dairy sector is a true heavyweight, which is emphasised by the fact that it's responsible for nearly one quarter of the global milk production and accounts for 27% of global dairy trade[9]. Not to mention five of the ten largest dairy companies in the world originate from the EU[8].

According to statistics from Eurostat's COMEXT, the 2017 dairy exports by the EU reached a value of €11,3 billion, which is 8,3% of the total agrofood exports and an 15,8% increase from 2016[6]. The 26,2% year-over-year increase in export value of milk powder and whey was the highest of all agrofood products[6]. However, in the same period cheese exports grew with a substantial 10,2% as well.

The 2017 exports of milk powder and whey made up for 3,2% of the total agrofood exports and cheese 2,9%. These were by far the largest volumes in the EU's dairy export.

EU Agrofood and Dairy Exports							
	Export in € billion.				*2017*	*Share in*	*Trade*
	2014	*2015*	*2016*	*2017*	*YOY*	*Agrofood**	*balance***
Total Agrofood	€121,9	€129,0	€131,2	€138,0	5,1%	100,0%	€20,5
Total Dairy	€10,8	€10,1	€9,8	€11,3	15,8%	8,3%	€10,2
MP & Whey	€5,0	€4,2	€3,5	€4,5	26,2%	3,2%	€4,4
Butter	€0,6	€0,7	€0,8	€0,9	10,1%	0,7%	€0,9
Fresh milk, Butter milk & Yoghurt	€1,0	€1,0	€1,1	€1,3	14,3%	0,9%	€1,2
Cheese	€3,6	€3,5	€3,6	€4,0	10,3%	2,9%	€3,6

** For 2017*
*** For 2017, in € billion*

Table 1: EU Agrofood and Dairy Exports. Calculations based on data from: European Commission (COMEXT)[5, 6]

The EU's dairy exports increased exponentially in 2017, with butter, of which export value only showed only a moderate increase, being the only exception. Skimmed milk powder (SMP) stood out in particular as exports increased with 36% by volume. Cheese and whey exports increased as well with 4% and 2% by volume respectively[10].

While the overall 2017 figures look very promising, the year-over-year growth of dairy exports to Japan stands out even more. Cheese export, the most substantial export volume within dairy exports to Japan, grew with 20% to almost 95.000 tons[10]. Whey exports to Japan meanwhile, totalled 14,5 thousand tons, 52% more than in 2016. Most notable however, was the export of skimmed milk powder, which rose with 244% to 12,4 thousand tons, well over double the export volume of 2016.

EU Dairy exports to Japan							
	Total Dairy Exports (in MT x 1000)			*Exports to Japan (in MT x 1000)*			*% of total*
	2016	*2017*	*YOY*	*2016*	*2017*	*YOY*	*2017*
Total dairy*	4162,0	4360,0	5%				
Butter	161,9	136,8	-16%	5,9	4,1	-31%	3,0%
SMP	574,3	779,0	36%	3,6	12,4	244 %	1,6%
Cheese	796,5	825,9	4%	79,1	94,9	20%	11,5%
Whey	551,5	564,0	2%	9,5	14,5	52%	2,6%

** Approximations of main category data available.*

Table 2: EU Dairy Exports to Japan. Calculations based on data from: European Commission (COMEXT)[10]

According to data published by the Japanese customs, the combined value of these four European dairy exports totalled ¥43,3 billion in 2017[11], which, when converted to euros, equal's approximately €342 million[II]

[II] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12].

1.4 Barriers to Trade

Even though agricultural and, by extent, dairy exports to Japan have prospered in recent years, European firms have expressed some frustration with tariffs and other obstacles to the Japanese market. These obstacles, as was indicated by EU exporters, were believed to hinder the development of their activities[13].

This has been particularly the case with dairy exports due to the fact that the agricultural sector of Japan enjoys a high status of protection. For example, import tariffs on agriculture products are, in average, relatively high compared with other sectors[14]. Besides the mentioned tariffs, imports face other restrictive obstacles such as quotas or state trading systems meant to regulate the market price and protect the domestic industry[14].

The Organisation for Economic Cooperation and Development (OECD) calculates the level of support the agricultural sector of a given country receives in the form of policy measures. The total of policy transfers to the agricultural sector is called the Total Support Estimate (TSE) and are expressed in a percentage of GDP; the policy transfers to the agricultural producers (measured at the farm gate) is called the Producer Support Estimate (PSE) and is expressed in a percentage of Gross Farm Receipt (GFR)[15, 16].

According to 2017 data, the TSE in Japan was €45,5 billion, 1,06% of GDP, the PSE was €37,7 billion, 49,2% of the gross farm receipt. In comparison, the TSE percentage for the EU in the same year was 0.61%, and the PSE percentage 18,3%. For the USA the TSE percentage in 2017 was 0,5% and the PSE percentage 9,9%[17, 18]. The producer Nominal Protection Coefficient (NPC) is an indicator of the nominal rate of protection for producers. It measures the average farm gate price received by producers and the border price measure at the farm gate[19]. The overall NPC ratio for Japan in 2017 (1,82) was significantly higher than those of the EU (1,05) and the USA (1,03)[18]. When we look at the NPC for milk producers the difference is even greater; a 2,28 NPC ratio for Japan compared to a 1,01 and 1,25 NPC ratio for the EU and USA respectively[15]. This shows the extent to which the Japanese agricultural sector, and particularly the dairy sector, is protected by government policies.

Comparison TSE and PSE 2017						
	TSE		*PSE*		*NPC**	*NPC Milk*
	(in € billion)	*% GDP*	*(in € billion)*	*% GFR*	*Ratio*	*Ratio*
Japan	€45,5	1,06%	€37,7	49,2%	1,82	2,28
EU28	€92,7	0,61%	€82,6	18,3%	1,05	1,01
USA	€85,3	0,50%	€35,1	9,95	1,03	1,25

**: Nominal Protection Coefficient (producer), The ratio between the average farm gate price received by producers (including payments per ton of current output), and the border price measured at farm gate.*

Table 3: Comparison TSE and PSE 2017. Sources: OECD[15, 17, 18]

1.5 The Future of the EU-Japan Trading Relationship

As shown by the trade data, agricultural goods such as dairy are an important export product for the European Union. Japan has been one of the most important destinations for European agrofood products for many years. Recently however, the export numbers show a fast growing demand for agrofood imports from the EU and especially for dairy products.

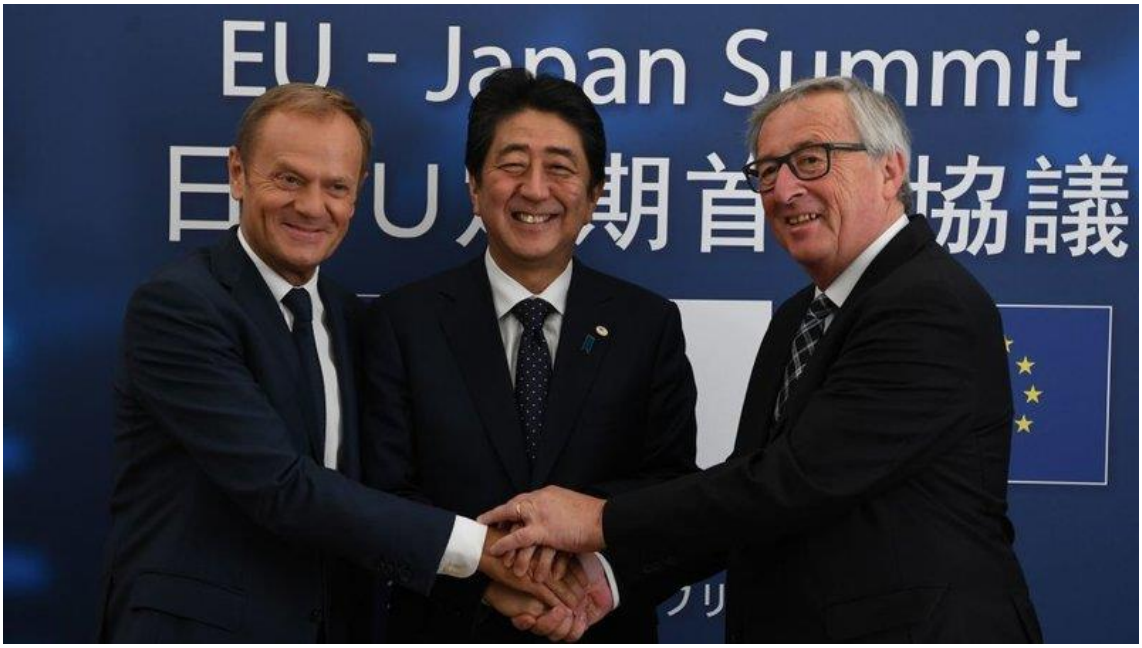
Unfortunately there are certain impediments to trading with Japan which could potentially deter EU companies from the Japanese market, particularly concerning those in the agrofood sector. Considering the value of EU agricultural exports, and the importance of Japanese markets to this sector in particular, this could result in a considerable economic loss in the long term.

The economic partnership should eliminate the majority of obstacles experienced by exporting/importing parties in both Japan and EU. This, as is anticipated, will significantly stimulate economic activities between the two parties and create new opportunities in both markets.

It is therefore no surprise the signing of the agreement was (overall) well received in both the EU as in Japan. The trade deal, often referred to as the "cars-for-cheese" deal[20], received an abundant amount of positive press coverage, many of which, emphasising the benefits and opportunities it will bring the European dairy sector in particular[20, 21, 22, 23].

2. The EU-Japan Economic Partnership Agreement

On July 17th 2018, Japan's Prime Minister Shinzo Abe, European Commission President Jean-Cloude Junker and European Council President Donald Tusk, officially signed the EU-Japan Economic Partnership Agreement at the 25th EU-Japan Summit in Tokyo[24, 25]. For both the EU and Japan, it is the largest free trade agreement they have ever signed and was internationally received as a clear statement against protectionism[26, 27]. In fact, the EU-Japan EPA currently is the world's largest free trade agreement and creates an open trade zone accounting for nearly one third of global GDP[28]. The trade liberalisation under the agreement exceeds even that of a Free Trade Agreement under WTO criteria, as it covers 99% of tariff lines and 100% of imports on the EU side, and 97% of tariff lines and 99% of imports on the Japanese side[29]. Both parties have confirmed their commitment to a fast implementation of the agreement and, for now, it is planned to take action early 2019[27], almost six years after the official start of negotiations. While the path to the agreement was long and not without obstacles, but now negotiations have finished political and industrial leaders from both sides are expressing high expectations of the trade deal.



Picture 1: Prime Minister Shinzo Abe of Japan, European Commission President Jean-Cloude Junker and European Council President Donald Tusk at the EU-Japan Summit in Tokyo 2018. Photo: RTE news[30]

2.1 Interests & Objectives

The relationship between Japan and the EU is of great mutual importance and is built upon cooperation as well as shared values regarding global challenges and economic progress[31]. Japan and the EU are heavily invested in one another, as the trade relationship is of critical importance for either of the two economies. Yet, traditionally there were certain nuisances and obstacles, on either side of the relationship, which somewhat hindered further development of bilateral trade. The Economic Partnership Agreement is meant to take away many of the remaining barriers between the two parties, stimulating further economic growth for both and strengthen political ties[32].

Besides the mutual interests, when going into the negotiations both parties had specific interests and requirements for the agreement as well. As would be expected, both Japan and the EU had high demands for access to each other's market while simultaneously aiming to limit concessions to their own market and interests as much as possible.

The main points of discussion during the negotiations were:

- *High import duties*
- *Non-tariff measures (NTMs)*
- *Regulations and standards*
- *Public procurement*
- *Geographical indications (GIs)*

The high import duties have been concidered an obstacle for both parties, albeit, not necessarily for the same industries. The Japanese interests lay mainly with the tariffs on cars, car parts, and electronics[33], while the tariffs on agrofood and chemical commodities were of most relevance to the European side[2].

Regulatory cooperation, technical barriers and NTM's were another important issue. To avoid that overly complicated regulations and technical standards form a barrier to each other's markets, both parties aim to work together on developing international/universal standards and facilitate the sharing of experiences and information[34].

Japan and the EU have two of the words largest markets for public procurement which, in economies like these, government purchases are estimated to account for 15% of the total economy[35]. Understandibly, access to these markets is of great interest to either party and was therefore another important point during the negotiations.

The protection of geographical indicators was another point on the agenda, as well some other intellectual property (IP) issues. Particularly applying to food items, agreement on geographical indicators would ensure that certain products receive the same level of protection in either location[32, 33]. As both Japan and the EU have a wide variety of food exports that could benefit from this protection, GI's were a crucial topic.

2.2 History of the Economic Partnership

The idea for economic cooperation between Japan and the EU found favour in the late 1980's, after unification of Western Europe and the Americas. The first step was made when on July 18th 1991, both parties signed a 'Joint Declaration on Relations' in the Hague, affirming (amongst others) their commitment to promoting free trade[36]. One decade later, at the 10th EU-Japan summit in Brussels, the two parties approved an action plan as a new impulse for bilateral relations. The action plan consisted of four main objectives, one of which was "strengthening the economic and trade partnership"[37].

On January 1st 2002, the first agreement in efforts of promoting trade by facilitating bilateral market access between Japan and the EU entered into force, the EU-Japan *Agreement of Mutual Recognition* (MRA)[38]. The MRA outlines the conditions under which both parties will accept certificates of conformity issued by an assessment body in one location, according to the regulations of the other. This allowed companies (in certain industries) to obtain the required certificate of conformity in their own country, saving time, money and effort[38]. One and a half year later, both parties took the next step in economic collaboration when agreeing upon *cooperation on anti-competitive activities*[39]. This cooperation aimed to serve the enforcement of competition laws of both parties by aiding the collaboration and coordination between the respective competition authorities[39]. Almost half a decade later in early 2008, the agreement on *cooperation and mutual administrative assistance in customs matters* took action, facilitating closer collaboration between the customs authorities of both parties[40]. The following year in Brussels, Japan and the EU further committed to collaboration and improvement of their relation by signing an agreement on *cooperation in science and technology*[41].

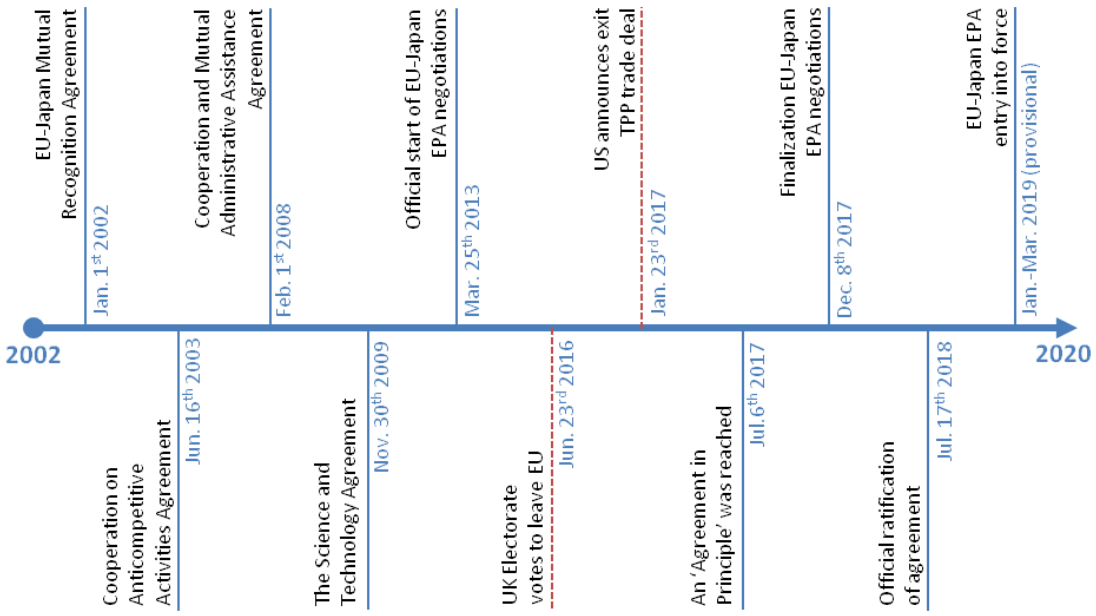


Figure 3: Timeline of EPA negotiations. Sources: European Commission[38, 42], Official Journal of the European Union[39, 40, 41]

At the 20th EU-Japan summit in Brussels May 2011, Japan and the European Union agreed to start the groundwork on a *free-trade arena* (FTA) and a *political framework agreement* while working on support for negotiations[42]. What followed was a year of rigorous discussions until in May 2012, when Japan and the EU agreed upon the agenda points for negotiations. In July 2012

an assessment on the impact of an economic partnership agreement was released and the European Commission sought 'concurrence' among member states for beginning negotiations[42, 43]. In November that year, the Commission would receive "the green light" to begin the negotiations[42]. The negotiations between the EU and Japan were officially launched the next year on March 25th 2013[42].

The road towards an agreement proved a rough one as tensions rose on more than one occasion during the four years of negotiating. The negotiations stranded on a variety of topics as for example, automobile and dairy tariffs[44], data transfer[45], and access to Japan's rail industry[46], all severely protracting the process. The duration on itself was a major cause of frustration. With negotiators turning sceptical about the viability of an agreement, the trade deal found itself hanging in the balance on more than one occasion[47, 48]. However, determination of both parties, aided by unforeseen political developments, would eventually push the arduous negotiations towards a resolution.

On June 23rd of 2016, amidst the EPA negotiations, the UK voted to leave the European Union[49]. Besides the obvious economic ramifications for EU nations, the news proved to affect the EU-Japan negotiations as well. The referendum outcome was highly unwelcome news to Japan, for whom the UK historically has been its point of entry to the European market. Japan had invested a lot to obtain its position in the UK and the potential closure of this "gateway" to the European continent would have dire consequences for the Japanese automobile and cosmetic industry, as well as their financial sector[50]. Japan's concerns were even officially expressed in a letter by the Japanese Ministry of Foreign Affairs addressed to the UK and EU[51]. Speculation on the conditions under which the UK would part with the EU were reason for concern within the Japanese government, which decided to prioritise finalising the trade deal with the EU over the simultaneously ongoing negotiations for the Trans-Pacific Partnership agreement (TPP)[52, 53].

When on January 30th 2017 the United States announced to withdraw their participation in the TPP agreement[54], it only increased commitment in Japan and the EU to finalise their trade deal[55, 56]. For Japan, reaching an agreement with the EU first, would mean a stronger position when restarting trade negotiations with the US and other trading partners[57]. Less than six months later, during the 24th EU-Japan summit in Brussels July 2017, the EU and Japan reached a political agreement (or 'agreement in principle') on the main elements and negotiations would be finalized December 8th the same year[54]. After the translation and legal verification process, the official agreement was officially signed by both parties on July 17th 2018 in Tokyo[58]. The agreement is awaiting ratification of the Japanese and EU parliaments, and is expected to enter into force before March 2019[59].

2.3 Economic Impact of the EPA

The only way for the partnership to be a truly sustainable solution for improving economic activities, the negotiators had to reach equilibrium where the political relationship was safeguarded and losses, on either side, were kept at a minimum. Assessments of the EPA's impact give an indication on what to expect in regards of gains and losses.

A recent example of such an (quantitative) assessment is one published by the European Commission's DG Trade in 2018, based on a CGE model simulation[29]. According to the assessment, both Japan and the EU will see significant economic returns by the year 2035 when compared to a baseline simulation of the same year but without a trade agreement. The simulation estimates a gain of €33,9 billion to the European GDP and €29,1 to the Japanese GDP by 2035. Although the increase in GDP is higher for the EU in absolute terms, the relative gain for Japan (0,61%) is far more significant than for the EU (0,14%) on account of the fact that the EU's economy is about four times that of Japan[29, 60] . As for gains in bilateral trade, the sole purpose of the EPA, both Japan and the EU are expected to see a notable increase in exports. Japan is forecasted to export an additional €22,2 billion to the EU as effect of the agreement, which is a 23,5% gain. The benefit of the EPA for European exports to Japan is projected to reach €13,5 billion by the same year; a 13,2% increase[29]. The relative impact on Japanese exports is distinctly higher than is the case for the EU due to the fact the EU is a relatively larger trading partner for Japan, than Japan is to the EU.

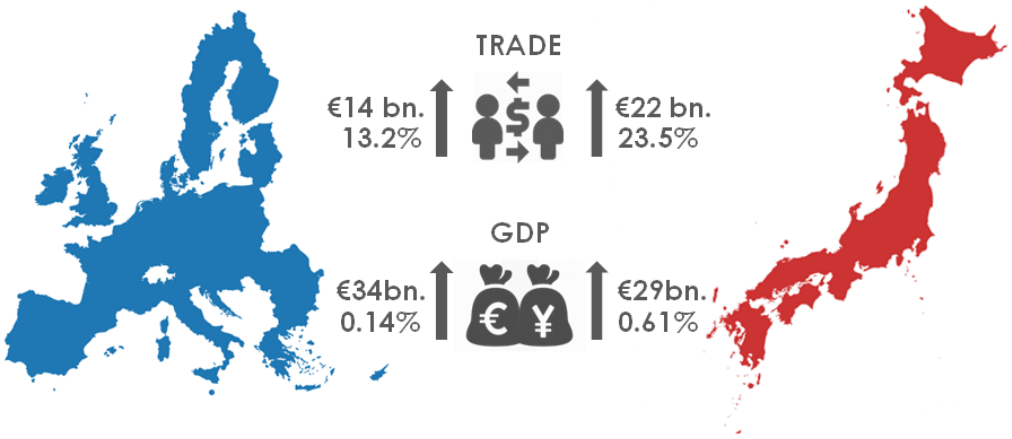


Figure 4: Expected economic returns resulting from the EPA by 2035. Source: European Commission (DG Trade)[29]

The *textile, apparel and leather* sector in the EU is expected to benefit the most in terms of export to Japan, followed by the chemical sector and sector for *motor vehicles*. The European *dairy* and *processed food* sector are anticipated to see substantial increases in export to Japan as well. The EU *processed food* sector is projected to see an additional €1,1 billion in export value to Japan, a relative increase of almost 52%. The European *dairy* sectors will see a remarkable 215% increase in exports to Japan by 2035, as result from the trade agreement[29]. A side note to these predominantly positive expectations is the impact on the European *motor vehicle* sector. Due to the, anticipated, growth of Japanese export to the EU, this sector will experience a negative impact of the trade deal.

Impact of EPA on EU Industry				
Sector	*Change in Bilateral trade*		*Change in Sectoral output*	
	€ x million	*%*	*€ x million*	*%*
Textile, Apparel & Leather	5.213	220,0%	7.096	1,9%
Chemicals	1.606	6,9%	1.975	0,1%
Motor Vehicles	1.222	11,5%	-139	0,0%
Processed Food	1.095	51,8%	1.841	0,2%
Dairy	729	215,0%	1.054	0,3%

Table 4: Impact of the EPA on EU industry by 2035 per sector. Source: European Commission (DG Trade)[29]

The *motor vehicle* industry of Japan on the other hand, is expected to gain the most in terms of export value to the EU, as well as change in sectoral output. Other sectors on the Japanese side to see exports to the EU increase are *machinery and equipment*, *chemicals, minerals and glass* and *metal* products. The biggest losses in the Japanese industry are expected to be felt by the *textile, apparel and leather* sector, as well as the dairy and processed food sector. The processed food industry and dairy industry of Japan is projected to see a relative change of -0,2% and -1,5% in output by 2035 respectively [29].

Impact of EPA on Japanese Industry				
Sector	*Change in Bilateral trade*		*Change in Sectoral output*	
	€ x million	*%*	*€ x million*	*%*
Motor Vehicles	8.174	51,3%	13.861	2,5%
Machinery & Equipment	3.576	13,6%	11.174	0,8%
Chemicals	3.306	30,0%	10.436	0,7%
Minerals & Glass	3.018	83,0%	9.150	1,5%
Metal Products	1.321	31,9%	6.235	1,2%

Table 5: Impact of the EPA on Japanese industry by 2035 per sector. Source: European Commission (DG Trade)[29]

3. The EPA and Dairy

The liberalisation of Japan's agricultural sector is considered as one of the main benefits for the European side of the partnership. As mentioned, Japan is an important market for EU agricultural exports, however high tariffs and various NTM's are a huge nuisance for European exporters. Dairy imports in particular, are subjected to high import duties, restricting quotas and state trading systems. Although the mentioned market regulating systems will stay in place, market access will, in fact, be improved by tariff cuts or liberalisation and by opening of duty free tariff quotas, as well as addressing the main non-tariff measures. The EPA eliminates 85% of tariff lines for EU agrofood exports to Japan over a set time frame of 15 years or less. For example, under the agreement tariffs for hard cheese of up to 28.9% will be eliminated over a 15 year span. For other cheeses the agreement will provide for new, exclusive tariff rate quotas covering the total of current EU export volume and allow for expansion proportional to increasing demand[61]

The changes, following the implication of the EPA, are explained per individual tariff line and commodity variation. These tariff lines, as recognised by the Japanese customs, are identified by a nine digit statistical code based on the international used HS codes[62]. The same codes will be used later on in chapter 4 on import volumes and origins.

The following sub-chapters will elaborate on the changes under the EPA for the export of cheese, butter, skimmed milk powder, whey, and lactose.

3.1 Cheese Exports under the EPA

Cheese, as regarded by the Japanese customs, can be divided into five basic categories with several variations each, based on properties or intended use.

The table below outlines the cheese categories and variations sorted by their statistical codes as used by the Japanese customs. For each of these tariff lines (categories) the applying EPA category is mentioned. These EPA categories are used to explain the changes that will apply under the EPA for these specific product categories.

Cheese Categories			
*Customs code - **EPA Category***			
04.06	*"Cheese and Curd"*		
0406.10	*"Fresh (unripened or uncured) cheese, including whey cheese, and curd"*		
	0406.10.020	**TRQ-25**	A dry matter content, by weight, not exceeding 48%, chopped not exceeding 4g per each, frozen, in immediate packings, of a content exceeding 5kg
	0406.10.010	**Xq2**	Other - Intended for use as materials for processed cheese, for "the Pooled Quota"
	0406.10.090	**TRQ-25/ B15**	Other
0406.20	*"Grated or powdered cheese, of all kinds"*		
	0406.20.100	**TRQ-25**	Processed cheese
	0406.20.200	**B15**	Other
0406.30	*"Processed cheese, not grated or powdered"*		
	0406.30.000	**TRQ-25**	
0406.40	*"Blue-veined cheese and other cheese containing veins produced by Penicillium roqueforti"*		
	0406.40.010	**Xq2**	Intended for use as materials for processed cheese, for "the Pooled Quota"
	0406.40.090	**TRQ-25**	Other
0406.90	*"Other cheese"*		
	0406.90.010	**Xq2**	Intended for use as materials for processed cheese, for "the Pooled Quota"
	0406.90.090	**TRQ-25/ B15**	Other

Table 6: Cheese categories as covered by the EPA. Sources: European Commission[61, 63]

The EPA will reduce or eliminate trade restrictions in the form of tariffs and quotas for most of the cheese categories shown in table 7.

The most notable achievement of the EPA for European cheese exports is the establishment of a new quota, exclusively for EU cheese. Second, for the cheese under this new quota, the in-quota tariff rates will be gradually eliminated over a 15 year period. Third, apart from the eliminated tariff rates, the quota quantity, which will be 20.000 metric tons the first year after

the EPA takes action, will be annually increased over the same 15 year time span up to 31.000 metric tons.

After the 15th year, provided the six preceding years have shown positive growth in total cheese consumption, the aggregate quota quantity for each following year shall be adjusted and determined every five years (based on compound annual growth rate). In case there is no positive growth in the six preceding years, the quota quantity will stay at the level of the most recent year[61].

Cheese Quota and Custom Duties - **TRQ-25**				
Year	*MT*[I]	*In-quota rate for: Processed Cheese*	*In-Quota rate for: Fresh cheese*	*In-quota rate for: Other Cheeses*
Base rate (WTO)*		40,0%	22,4%	29,8%
Year 1	20.000	37,5%	21,0%	27,9%
Year 2	20.600	35,0%	19,6%	26,1%
Year 3	21.200	32,5%	18,2%	24,2%
Year 4	21.800	30,0%	16,8%	22,4%
Year 5	22.500	27,5%	15,4%	20,5%
Year 6	23.200	25,0%	14,0%	18,6%
Year 7	23.900	22,5%	12,6%	16,8%
Year 8	24.600	20,0%	11,2%	14,9%
Year 9	25.300	17,5%	9,8%	13,0%
Year 10	26.100	15,0%	8,4%	11,2%
Year 11	26.900	12,5%	7,0%	9,3%
Year 12	27.700	10,0%	5,6%	7,5%
Year 13	28.500	7,5%	4,2%	5,6%
Year 14	29.300	5,0%	2,8%	3,7%
Year 15	30.200	2,5%	1,4%	1,9%
Year 16	31.000[II]	0%[III]	0%[III]	0%[III]

[I] Aggregate quota quantity in metric tons (MT).
* The current situation (i.e., prior to the EPA taking action).
[II] From the 17th year, the aggregate quota quantity for each year shall be calculated every five years.
[III] For the 17th year and for each subsequent year, the in-quota rate of customs duty will remain 0%.

Table 7: Quota sizes and custom duties for cheese imports within TRQ-25. Sources: European Commission[61, 63]

Imports in excess of the aggregate quota quantity are not covered by the EPA, therefore, in this situation the tariff rates as were set out under the WTO agreement will apply[61].

There are, however, some property based exceptions for categories with the description "Other" under "Fresh cheese" (code 0406.10.090) and under "Other cheese" (code 0406.90.090).

Depending on specific product properties, these imports may belong to EPA category **B15**. Under the EPA, products in this category are not restricted by the quota of **TRQ-25**, however the custom duties will still be eliminated in a similar fashion, over the same 15 year period (see table 8).

In the case of "Fresh cheese", **B15** applies when import concerns:

- *Cream Cheese, as described in Codex Standard for Cream Cheese (CODEX STANDARD 275-1973). Containing fat content by weight, less than 45%*[63].

In case of "Other Cheese", **B15** will apply for all imports other than:

- *Soft cheese containing moisture on a fat free basis exceeding the level as described for soft designation as defined in Section 7.1.1 of Codex General Standard for Cheese (CODEX STANDARD 283-1978)[85]. (MFFB > 67%)[64].*

B15 will also apply for imports in category "Grated or powdered cheese" other than processed cheese.

The elimination of custom duties for imports in the category **B15** is outlined in table 8 below.

Cheese Custom Duty Elimination (Other cheeses)			
Year	*Custom duties for: Cream Cheese < 45% fat content*	*Custom duties for: Grated/powdered cheese Other than Processed*	*Custom duties for: Other Cheeses Other*
Base rate (WTO)*	29,8%	26,3%	29,8%
Year 1	27,9%	24,7%	27,9%
Year 2	26,1%	23,0%	26,1%
Year 3	24,2%	21,4%	24,2%
Year 4	22,4%	19,7%	22,4%
Year 5	20,5%	18,1%	20,5%
Year 6	18,6%	16,4%	18,6%
Year 7	16,8%	14,8%	16,8%
Year 8	14,9%	13,2%	14,9%
Year 9	13,0%	11,5%	13,0%
Year 10	11,2%	9,9%	11,2%
Year 11	9,3%	8,2%	9,3%
Year 12	7,5%	6,6%	7,5%
Year 13	5,6%	4,9%	5,6%
Year 14	3,7%	3,3%	3,7%
Year 15	1,9%	1,6%	1,9%
Year 16	0%[I]	0%[I]	0%[I]

[I] For the 17th year and for each subsequent year, the in-quota rate of customs duty will remain 0%.

* The current situation (i.e., prior to the EPA taking action).

Table 8: Custom duty elimination for imports of "Other Cheese". Sources: European Commission[61, 63]

Cheese imports meant for the production of processed cheese, identified by EPA category **Xq1**: are excluded from the trade agreement. The applying quota(s) and tariff rates will remain as they were under the WTO agreement. The tariff quota is calculated annually in advance, based on prospective demand and is pooled with other commodities. The in-quota tariff rates are as established among WTO members[61, 63]:

3.2 Butter Imports under the EPA

Similar to cheese, butter imports are categorised based on type and purpose. For sake of simplification, butter can be divided into two categories based on fat content, and subcategorized based on the quota under which the commodity is imported.

Butter Categories			
*Customs code – **EPA Categories***			
04.05	*"Butter and other fats and oils derived from milk"*		
0405.10	*"Butter - Of a fat content, by weight, not exceeding 85%"*		
	0405.10.129	**TRQ-23**	
	0405.10.110	**Xq1**	For ALIC
	0405.10.121	**Xq1**	For "the Pooled Quota" [I]
0405.20	*"Butter - Other"*		
	0405.20.229	**TRQ-23**	
	0405.20.210	**Xq1**	For ALIC
	0405.20.221	**Xq1**	For "the Pooled Quota" [I]

[I] The tariff quota shall be calculated on bass of 7.264 ton, in consideration of the quantity of prospective domestic demand in the current fiscal year (April-March), international market situation and other relevant conditions.[63]

Table 9: Butter categories as covered by the EPA. Sources: European Commission[61, 63]

For butter exports, the EPA will, similar to cheese, bring a new tariff rate quota specifically for EU exports. This quota, **TRQ-23**, will apply to butter, as well as several other dairy products (e.g., SMP).

Butter Quota and Custom Duties - **TRQ-23**		
Year	MT[I]	In-quota rate
Base rate (WTO)*		29.8% + ¥985/kg
1	12.857	35% + ¥290/kg
2	13.286	35% + ¥261/kg
3	13.714	35% + ¥232/kg
4	14.143	35% + ¥203/kg
5	14.571	35% + ¥174/kg
6	15.000[II]	35% + ¥145/kg
7	15.000	35% + ¥116/kg
8	15.000	35% + ¥87/kg
9	15.000	35% + ¥58/kg
10	15.000	35% + ¥29/kg
11	15.000	35% [III]

[I] Aggregate quota quantity in whole milk equivalent (WME) (see Appendix A).

[II] For the 7th, and subsequent years, the aggregate quota quantity will remain 15.000 MT in WME.

[III] For the 12th, and subsequent years, the in quota rate will stay at 35%.

* The current situation (i.e., prior to the EPA taking action).

Table 10: Quota sizes and custom duties for butter imports within TRQ-23. Sources: European Commission[61, 63]

After the agreement takes action, the aggregate quota quantity for the products imported under TRQ-23 will be 12.857 metric tons and will annually increase over a six year time span to a quantity of 15.000 metric tons of milk equivalent, after which the quantity will remain at this

level for subsequent years. Furthermore, the in-quota rates applied to products imported within this quota quantity, shall gradually be reduced over the first ten years after implementation of the EPA. The annual increase of quota volume and reduced tariff rates are shown in the table below.

Butter imported by ALIC and under the "Pooled Quota", identified by EPA code **Xq1**, are excluded from the EPA, meaning the conditions will remain as was the case before the EPA.

3.3 SMP Imports under the EPA

SMP imports are distinguished by product properties and purpose. For sake of simplification, the table below will display the various categories lined out per type and import quota.

An important notation for this and subsequent chapters of this report, is that the used definition of SMP will be according to the standard as described in the Codex Alimentarius[65] (CODEX STAN 212-1999). Therefore, only tariff lines mentioning commodity requirements of a milk fat content, by weight, not exceeding 1.5%, will be included in this report.

SMP Categories			
*Customs code - **EPA Categories***			
04.02	"Milk and cream, concentrated or containing added sugar or other sweetening matter"		
0402.10	*"In powder, granules or other solid forms, of a fat content, by weight, not exceeding 1.5%"*		
	0402.10.129	**TRQ-23**	SMP Containing added sugar
	0402.10.212	**TRQ-23**	Other SMP – For school lunch etc.
	0402.10.217	**R9**	Other SMP – For feeding purposes
	0402.10.229	**TRQ-23**	Other SMP – Other
	For "the Pooled Quota of skimmed milk powder for school lunch etc." [I]		
	0402.10.211	**Xq1**	Other SMP – For school lunch
	For ALIC		
	0402.10.110/ .221	**Xq1**	(Both types)
	For "the Pooled Quota of skimmed milk powder other than for school lunch etc." [II]		
	0402.10.121/ .216/.222	**Xq1**	(All types)

[I] The tariff quota shall be calculated on bass of 7.264 ton, in consideration of the quantity of prospective domestic demand in the current fiscal year (April-March), international market situation and other relevant conditions.[63]

[II] The tariff quota shall be calculated on bass of 74.973 ton, in consideration of the quantity of prospective domestic demand in the current fiscal year (April-March), international market situation and other relevant conditions.[63]

Table 11: SMP categories as covered by the EPA. Sources: European Commission[61, 63]

As is shown in table 11, the **TRQ-23** for EU imports applies to all SMP categories, with the exception of SMP for cattle feed. Although, the overall quota is shared with some other dairy categories (see subchapter 3.2 on 'Butter'), the in-quota rates will be reduced in a different fashion, as shown in table 12 below.

SMP Quota and Custom Duties - **TRQ-23**			
Year	*MT*[I]	In-quota rate for: Containing added sugar	In-quota rate for: Other
Base rate (WTO)*		(21.3% +)** ¥396/kg	29.8% + ¥396/kg
1	12.857	35% + ¥130/kg	25% + ¥130/kg
2	13.286	35% + ¥117/kg	25% + ¥117/kg
3	13.714	35% + ¥104/kg	25% + ¥104/kg
4	14.143	35% + ¥91/kg	25% + ¥91/kg
5	14.571	35% + ¥78/kg	25% + ¥78/kg
6	15.000[II]	35% + ¥65/kg	25% + ¥65/kg
7	15.000	35% + ¥52/kg	25% + ¥52/kg
8	15.000	35% + ¥39/kg	25% + ¥39/kg
9	15.000	35% + ¥26/kg	25% + ¥26/kg
10	15.000	35% + ¥13/kg	25% + ¥13/kg
11	15.000	35% [III]	25% [IV]
[I] Aggregate quota quantity of whole milk equivalent (WME) in metric tons (MT).	[II] For the 7th, and subsequent years, the aggregate quota quantity will remain 15.000 MT in WME.	[III] For the 12th, and subsequent years, the in quota rate will stay at 25%. [IV] For the 12th, and subsequent years, the in quota rate will stay at 35%.	*The current situation (i.e., prior to the EPA taking action). ** Only applies to 0402.10 .229

Table 12: Quota sizes and custom duties for SMP imports within TRQ-23. Sources: European Commission[61, 63]

The in-quota custom duty rate will be reduced over a 10 year time span, after which it will remain at the level of the 10th year.

EU SMP imported for the purpose of cattle feed is not included in the **TRQ-23** quota, instead the import taxes and other custom duties will be reduced over a 6 year time span after the EPA takes action. The reduction of import tax and custom duties for this commodity is shown in table 13 below.

SMP Custom Duties - **R9**		
Year	*Import tax*	*Custom duties other than import tax*
Base rate (WTO)*	¥396/kg	
1	¥255,87/kg	¥77,43/kg
2	¥207,73/kg	¥62,87/kg
3	¥159,60/kg	¥48,30/kg
4	¥111,47/kg	¥33,73/kg
5	¥63,33/kg	¥19,17/kg
6	¥15,20/kg[I]	¥4,60/kg[II]
[I] For the 7th, and subsequent years, import tax will stay at ¥15.20/kg.		[II] For the 7th, and subsequent years, custom duties other than import tax will stay at ¥4.60/kg. *The current situation (i.e., prior to the EPA taking action).

Table 13: Custom Duties for SMP imported for "Feeding Purposes". Sources: European Commission[61, 63]

3.4 Whey Imports under the EPA

The categorisation of whey imports is much more complex than is the case with the other commodities covered in this chapter. There are two main categories (indicated by '1' and '2' in table 14) based on production process and preservation methods, the first of which has six subcategories based on milk fat content. Table 14 below shows the categorisation of whey imports and the various EPA categories than can apply within each tariff line.

Whey Categories		
*Customs code – **EPA Categories***		
04.04	*"Whey, whether or not concentrated or containing added sugar or other sweetening matter"*	
0404.10	*(1)"Sterilized, frozen, preserved, concentrated, containing added sugar or other sweetening matter"*	
0404.10.129	**TRQ-22/R11/R12/ B5****/B5*****	Whey of a fat content, by weight, not exceeding 5% - Mineral concentrated whey
0404.10.139	**TRQ-22/A/R11/ B5*****	Whey of a fat content, by weight, not exceeding 5% - Other - Containing added sugar
0404.10.149	**TRQ-22/A/R12/ B5*****	Whey of a fat content, by weight, not exceeding 5% - Other - Other
0404.10.169	**TRQ-22/R11/R12/B5*** */B5*****	Other whey – Mineral concentrated, other
0404.10.179	**R11/A/B5*****	Other whey – Other, containing added sugar
0404.10.189	**R12/A/B5****	Other whey – Other, other
For "the Pooled Quota of mineral concentrated whey"		
0404.10.121/ .122/.161/.162	**Xq1**	(All types)
For "the Pooled Quota of whey etc. for feeding purposes"		
0404.10.131/ .141/.171/.181	**Xq1**	(All types)
For ALIC		
0404.10.111/ .119/.151/.159	**Xq1**	(All types)
For "the Pooled Quota of whey etc. used for prepared milk powder for babies and infants"		
0404.10.142/ .182	**Xq1**	(Both types)
0404.10	*(2)"Other Whey"*	
0404.10.200	**B10**	

Table 14: Whey categories as covered by the EPA. Sources: European Commission[61, 63]

Different than with the commodities covered so far, is that within each tariff line there are further distinctions, based on milk protein and sugar content. Therefore, as the EPA categories imply, within a given tariff line, different quotas or custom duties may apply.

The EPA will offer a new, and EU exclusive, tariff-rate quota for whey imports as well. For commodities in the whey category that do not fall under the new quota, **TRQ-22**, custom duties will be reduced drastically over the years after implementation of the EPA.

For the Whey categories that fall under **TRQ-22**, this quota will apply if:

- The Ash content is equal to/or greater than 11% (applies to: 0404.10.129/.169).
- The commodities are whey and products consisting of natural milk constitutions, used for infant formula (applies to: 0404.10.149/.189).
- The commodities are whey permeate with protein content less than 5 per cent (applies to: 0404.10.139/.149).

The aggregate quota quantity of **TRQ-22** will gradually increase over the first 11 years after the EPA takes action from 6.200 to 9.400 metric tons. From the 12th and subsequent years, the quantity will remain at 9.400 tons. The in-quota custom rates for imports within **TRQ-22** will be duty free from the first year after the EPA takes action, with the exceptions of tariff lines 0404.10.129 & 0404.10.169. For these last two commodities the in-quota rate will be gradually eliminated in the five years after the EPA takes action.

The quota quantity and in-quota rates (for commodities to which they apply) are shown in table 15

Whey Quota and Custom Duties - **TRQ-22**			
Year	*MT*[I]	*In-quota rate for: Containing added sugar*	*In-quota rate for: Other*
Base rate (WTO)*		29,8% + 425 ¥/kg	29,8% + 425 ¥/kg
Year 1	6.200	31,8%	22,7%
Year 2	6.520	28,6%	20,5%
Year 3	6.840	25,5%	18,2%
Year 4	7.160	22,3%	15,9%
Year 5	7.480	19,1%	13,6%
Year 6	7.800	0%[III]	0%[III]
Year 7	8.120	0%	0%
Year 8	8.440	0%	0%
Year 9	8.760	0%	0%
Year 10	9.080	0%	0%
Year 11	9.400[II]	0%	0%

[I] Aggregate quota quantity in metric tons (MT).

[II] For the 12th, and subsequent years, the aggregate quota quantity will remain 9.400 MT.

[III] For the 7th and subsequent years, the in-quota rate will remain 0%.

*The current situation (i.e., prior to the EPA taking action).

Table 15: Quota sizes and custom duties for Whey imports within TRQ-22. Sources: European Commission[61, 63]

Under the EPA, imports in excess of the set aggregate quota quantity for **TRQ-22**, will face custom duties, however, these custom duties will be reduced or eliminated over a set time span

as explained in the table below. The out-of-quota custom duties vary depending on commodity specifications, fitting either one of four descriptions:

R11 Containing added sugar, and of a milk protein content, by weight, calculated on the dry matter, less than 45%.

R12 Other than containing added sugar, and of a milk protein content, by weight, calculated on the dry matter, less than 45%.

B5**** Other than containing sugar, and of a milk protein content, by weight, calculated on the dry matter, equal or greater than 45%.

B5***** Containing added sugar, and of a milk protein content, by weight, calculated on the dry matter, equal or greater than 45%.

Whey Custom Duties – Other Whey							
Year	*Milk Protein Content < 45%*			*Milk Protein Content > 45%*			*Other*
	Added sugar	*Other*	*+ ¥/kg*	*Added sugar*	*Other*	*+ ¥/kg*	*Other*
EPA Category	**R11**	**R12**		**B5*******	**B5******		**B10**
Base rate (WTO)	29,8%	29,8%	687	29,8%	29,8%	687	21,0%
Year 1	35,0%	25,0%	40,0	35,0%	25,0%	40	19,4%
Year 2	32,6%	23,3%	37,2	28,0%	20,0%	32	17,4%
Year 3	31,1%	21,5%	34,4	21,0%	15,0%	24	15,5%
Year 4	27,7%	19,8%	31,6	14,0%	10,0%	16	13,6%
Year 5	25,2%	18,0%	28,8	7,0%	5,0%	8	11,6%
Year 6	22,8%	16,3%	26,0		Free[II]		9,7%
Year 7	20,3%	14,5%	23,2		Free		7,7%
Year 8	17,9%	12,8%	20,4		Free		5,8%
Year 9	15,4%	11,0%	17,6		Free		3,9%
Year 10	13,0%	9,3%	14,8		Free		1,9%
Year 11	10,5%	7,5%	12,0		Free		Free[III]
Year 12	10,5%[I]	7,5%[I]	12,0[I]		Free		Free

[I] From the 12th and subsequent years, custom duties will remain at the level of the 11th year.
[II] From the 6th and subsequent years, imports will be duty-free.
[III] From the 11th and subsequent years, custom duties will remain at 0%

Table 16: *Quota sizes and custom duties for imports of "Other Whey". Sources: European Commission*[61, 63]

Whey that does not fit into the category "Sterilized, frozen, preserved, concentrated or containing added sugar or other sweetening matter", indicated by EPA category **B10**, does not fall under **TRQ-22**, but, as shown in table 16, the custom duties will be eliminated over the first ten years after the EPA takes action.

Finally, whey can be imported as an ingredient for the production of mixed feeds, containing blue colouring at time of import as way of identification. Under the agreement, custom duties for this category will be eliminated and imports will be duty free. This, however, only applies to categories other than mineral concentrated whey, i.e., in EPA category **A**.

Commodities with EPA category **Xq1**, that are imported under the pooled quotas for baby formula; mineral concentrated whey; feeding purposes; or imported by ALIC, are excluded from the agreement. For these commodities the applied TRQ's will remain unchanged after the EPA taking action.

3.5 Lactose Imports under the EPA

Unlike the previous covered commodities, lactose is categorized in the section for "prepared foodstuffs". More specifically, lactose is categorized in the sub-section for sugars and confectionary. Imported lactose falls in either one of two categories based on purity of content and form.

Lactose Categories		
Customs code		
17.02	*"Other sugars, including chemically pure lactose, maltose, glucose and fructose, in solid form; sugar syrups not containing added flavouring or colouring matter; artificial honey, whether or not mixed with natural honey; caramel"*	
	"Lactose and lactose syrup"	
	1702.11.000	Containing by weight 99% or more lactose, expressed as anhydrous lactose, calculated on the dry matter
	1702.19.000	Other Lactose

Table 17: Lactose categories as covered by the EPA. Sources: European Commission[61, 63]

Currently, the custom duties for lactose of either category are 8.5% ad valorem, for WTO members. However, under the EPA, lactose imports will not be restricted by quotas and shall be excluded from any tariff commitments. Imports of these commodities will be duty free.

3.6 Non-Tariff Measures and other Trade Barriers

As mentioned, custom tariffs were not the only obstacles obstructing the bilateral trade between Japan and the EU. The negotiations between the two parties therefore, addressed a large number of non-tariff measures (NTMs) and regulatory concerns[34]. NTMs can be, e.g., dissimilar standards or overly complicated and time consuming procedures. With the EPA, both Japan and the EU have committed to work more closely together on simplifying and harmonising matters in effort to tackle these remaining obstacles.

3.6.1 SPS Measures

Sanitary and Phytosanitary (SPS) measures are meant to guarantee food safety as well as animal and plant health. The incorporation of SPS in the agreement serves to improve predictability for imports of agricultural products, without making any concessions regarding safety[84].

The main ways both parties commit to address SPS law, regulation, and standard related barriers under the agreement is by[61]:

- Cooperation on simplifying and expediting import procedures, including approval and clearance processes.
- Guaranteeing transparency in the food additive approval process and requirements for assessment of applications.
- Clear guidelines for emergency measures, to ensure these measures will not unnecessarily hinder trade.

In regards to food additives, Japan has agreed to (similarly to the EU) publish guidelines on the internet in English and a setting a two year standard processing period[61].

Regarding to the guidelines for emergency measures, both Japan and the EU have agreed to not maintain emergency measures without scientific evidence. Both parties have also agreed to recognise regionalisation to ensure that, in case of a disease outbreak, export from unaffected areas will not be hindered[66].

3.6.2 Customs and Trade Facilitation (CTF)

In the agreement, Japan and the EU have agreed on cooperation on custom matters in effort of reducing the burden of custom controls on traders, while enhancing safety and security[61].

The bilateral cooperation is meant to aid in the modernisation and simplification of rules, procedures, requirements and formalities regarding trade between Japan and the EU. Some examples of CTF under the agreement are[61]:

- The immediate release of goods/imports as soon as compliance has been assured.
- Transparency of fees and charges.
- Advance ruling on tariff classification or origin of goods.
- Enhanced cooperation on exchange of information and on trade facilitation partnership programmes.

3.7 Geographical Indications

The administration of Intellectual Property Rights (IPR), which was another important item on the EU side of the EPA negotiations, ended up as an important part of the final version of the agreement. The IPR chapter of the agreement builds on the Agreement on Trade Related Aspects on Intellectual Property Rights (TRIPS) between WTO members and are, in fact, in line with the EU's current standards for IPR protection and enforcement[32, 61]. Besides the enforcement covered in the agreement, Japan and the EU committed to improve transparency and cooperation as well as working towards a more efficient administration of Intellectual Property[67].

The chapter on Intellectual Property includes, among others, the protection of Geographical Indications (GIs), which is in the interest of EU Agrofood exporters in particular as Europe is a large producer of distinctive regional foods[68]. The definition of a Geographical Indication under the TRIPS agreement is as follows:

> *"Geographical indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin."*[69]

Products that are registered as GIs are, under this agreement, protected in Japan to the same extent as they would be within the EU (and vice versa). This gives producers of these items a strong competitive advantage. With regards to the protection and registration of GIs, the agreement ensures the following[61]:

- A high level of protection of EU Geographical Indications (TRIPS art 23).
- Removal of all associated charges or taxes for any user registration.
- Protection of GIs in relationship with trade marks (TMs).
- Administrative enforcement of protection in addition to enforcement on request and civil remedies.
- Phasing out of prior uses identified on the Japanese market within seven years after entry into force of the Agreement (for foodstuff GIs).
- The possibility of adding new GIs to list of GIs protected under the agreement.

Under the agreement, Japan recognises more than 200 EU Geographical Indications, of which 23 are dairy products from 8 different European countries[70]. Goods with this protected status are exclusively allowed to carry, and be sold under, the respective name[61, 67].

Geographical Indications Covered by the EPA, Dairy		
Product name	*Product type*	*Country of origin*
Beurre d'Ardenne	Butter	Belgium
Danablu	Cheese (blue)	Denmark
Brie de Meaux[I]	Cheese (soft, cow milk)	France
Camembert de Normandie[I]	Cheese (soft, cow milk)	France
Comté[II]	Cheese (hard, cow milk)	France
Emmental de Savoie[I]	Cheese (hard, cow milk)	France
Reblochon / Reblochon de Savoie	Cheese (hard, cow milk)	France
Roquefort[II]	Cheese (blue, sheep milk)	France
Feta	Cheese (soft, mixed milk)	Greece
Asiago[II]	Cheese (hard, cow milk)	Italy
Fontina[II]	Cheese (hard, cow milk)	Italy
Gorgonzola	Cheese (blue, cow milk)	Italy
Grana Padano[I/II]	Cheese (hard, cow milk)	Italy
Mozzarella di Bufala Campana[I/II]	Cheese (soft, buffalo milk)	Italy
Parmigiano Reggiano[I/II]	Cheese (hard, cow milk)	Italy
Pecorino Romano[I]	Cheese (hard, sheep milk)	Italy
Pecorino Toscano[I/II]	Cheese (hard, sheep milk)	Italy
Provolone Valpadana[I]	Cheese (soft, cow milk)	Italy
Taleggio[II]	Cheese (soft, cow milk)	Italy
Edam Holland[I/II]	Cheese (hard, cow milk)	the Netherlands
Gouda Holland[I/II]	Cheese (hard, cow milk)	the Netherlands
Queijo S. Jorge	Cheese (hard, cow milk)	Portugal
Idiazabal	Cheese (hard, sheep milk)	Spain
Mahón-Menorca	Cheese (hard, mixed milk)	Spain
Queso Manchego[II]	Cheese (hard, sheep milk)	Spain
West Country farmhouse Cheddar cheese[I]	Cheese (hard, cow milk)	UK
White Stilton cheese / Blue Stilton cheese	Cheese (blue, cow milk)	UK

[I] *These names are protected in its entirety as mentioned in the list, not the individual components of the names.*

[II] *Paragraph 5 of Article 14.25 of the agreement applies to these geographical indications (see source 67).*

Table 18: List of new GIs for dairy products, covered by the EPA. Source: European Commission[70]

4. The Dairy Market of Japan

While the Japanese Dairy market is relatively infantile compared to those of western nations, there has been a steady increase in demand ever since the end of the Second World War. Dairy has gradually been adopted into the daily Japanese diet and current day demands far exceed the 7.4 million tons of domestic produced raw milk. With a self-sufficiency rate of 62%[71], Japan is heavily dependent on imports. In fact, with an import volume of 520.000 tons[72] of dairy products, Japan currently is the 3rd largest[73] dairy importer in the world[III]. Despite the large quantity of foreign imports however, the Japanese consumer have largely upheld their personal preferences, resulting in a rather distinctive dairy market that greatly differs from those in the west.

Picture 2: A kiosk at Akihabara station (accompanied by a series of vending machines) solely for the sale of domestic milk products. Source: Soranews24.com

[III] By 2016 volume

4.1 The History of Dairy in Japan

Dairy plays an almost trivial part in the traditional Japanese cuisine, and it was only recently it established a role in Japan's daily diet. The earliest documentation of dairy in Japan goes back to the Asuka period, under Emperor Kōtoku (645-654), as it was introduced by Korean immigrants. However, milk initially was exclusive to the elite, who drank milk for its perceived medicinal properties or as a delicacy[74]. Milk didn't become a drink for the general population until the Meiji era (1868-1912)[75], commonly referred to as the start of the modernisation (or westernisation) of Japan. During this period Japan underwent a complete reformation, which had a monumental political and societal impact. For the needed inspiration, Japan looked for expertise from abroad, particularly from Western nations. Early during this period, the Japanese adopted dairy farming techniques from Dutch farmers which allowed them to start the commercial production of milk. Due to its nutritional value, milk proved particularly popular among soldiers during wartime, which helped the product's marketability. While recovering from the Second World War, the Japanese diet started to gradually include more animal products, including dairy. Because of the food shortage after the war, many schoolchildren showed signs of developmental delay due to malnutrition. As a counter measure, the Japanese government ordered a nationwide implementation of school lunches[76]. From 1947, the lunches would include powdered milk donated by the United States and UNICEF. From 1958 forward, the powdered milk in school lunches would gradually be replaced by fresh cow's milk[76]. During the 1950's the import of Western food rapidly increased, making dairy products as butter and cheese widely available to the Japanese public[75]. The popularity of dairy products grew fast and, capitalizing on these developments, American and European fast-food and family diners quickly saturated the Japanese market with western style food. Over the years, dairy products have shown a steady increase in popularity and have become relatively ubiquitous in the Japanese diet. While still rather small for European standards, today's Japan has a fully developed, but rather distinctive, dairy market, truly unique in its kind.

4.2 A General Overview of the Industry

The majority of Japans domestically produced dairy comes from the Hokkaido prefecture in the country's most northern part. Half of the domestic produced milk originates from Hokkaido, as well as 90% of the cheese[71]. While the popularity of dairy products definitely has increased, the domestic dairy industry (particularly in recent years) has not been able to show proportional growth. The number of dairy farms in Japan has significantly decreased with almost 20% in the last 5 years[71]. The total number of cows has decreased as well, albeit less drastically with only 9% over the same period. The shrinkage in kettle has been somewhat offset by a higher production yield per cow thanks to modernised production methods. However, the overall production of raw milk is still decreasing resulting in an ever reducing self-sufficiency rate. The majority of dairy farms in Japan are small or medium sized family businesses. The significant shrinkage of dairy farms across Japan can be primarily attributed to the fact that few of these families have successors to take over the business. It is suggested that the slow emerging of corporate owned "mega-farms" will, to some degree, reverse the downward trend in the coming years[77]. However, the growing demand of beef and the lower feeder costs for beef cattle has resulted in many dairy farmers switching to beef production[78].

Dairy Farms in Japan

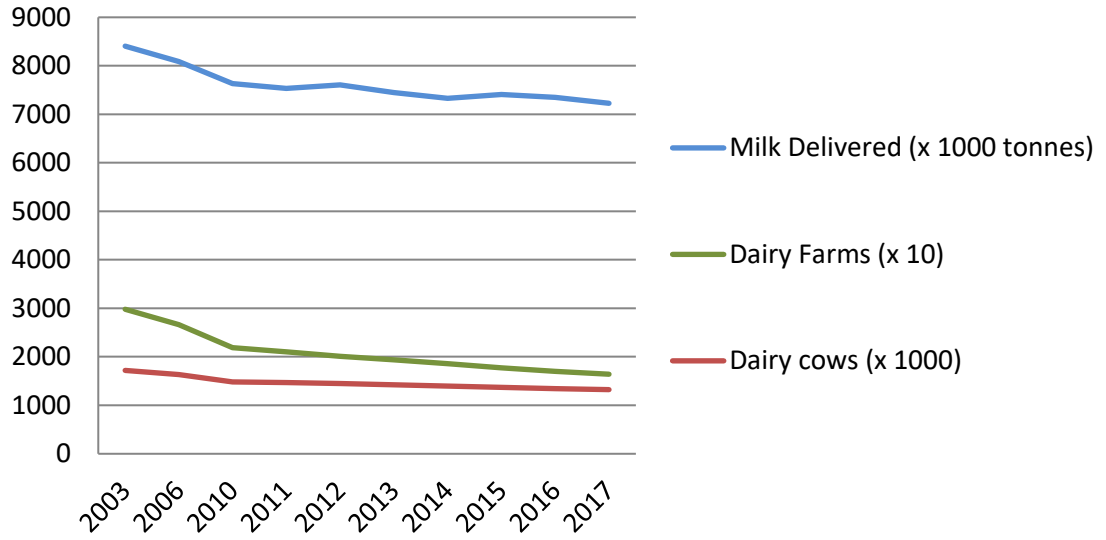


Figure 5: Japanese dairy farms output, 2003-2017. Based on data by: 日刊酪農速報 [71], MAFF (via ALIC)[72]

As the dependence on expensive imported cattle feed is expected to increase, this trend is likely to persist[71]. Cattle feed makes up for almost 40% of the total cost of production of milk, therefore, for the declining number of dairy farmers, their dependency on imports could drastically affect the milk prices and the therefore its utilisation.

Self Sufficiency Rate Raw Milk										
1975	*1985*	*1995*	*2005*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*
81%	85%	72%	68%	67%	65%	65%	64%	63%	62%	62%

Table 19: Self-Sufficiency rate of raw milk in Japan over time, 1975-2016. Source: 日刊酪農速報 [71]

The annual Japanese milk production is only a fraction of the total EU output (less than 5% for 2017[7]). The low quantity of available domestically produced milk (amongst other factors) had led to relatively high prices. For comparison, in 2017 the farm gate value of raw milk in Japan was 2,3 times higher than the EU average[7]. This means that, particularly for dairy products which require high volumes of milk during production (e.g., cheese or butter), it is difficult for Japanese manufacturers to be cost competitive.

Comparison Milk Production EU and Japan				
Location	*2014*	*2015*	*2016*	*2017*
EU				
Raw milk Delivered (MT x 1000)	148.471	152.333	153.171	156.058
Farm gate Price (€/100kg)	€37,26	€30,84	€28,43	€34,85
Japan				
Raw milk Delivered (MT x 1000)	7.271	7.352	7.291	7.227
Farm gate Price (€/100kg)	€67,92	€74,19	€84,29	€80,92

Table 20: Comparison of milk production and price between Japan and the EU, 2014-2017. Source: Clal.it[7]

The raw milk price paid is highest for the production of drinking milk, 117.4 ¥/kg, compared to the price paid for the production of hard and soft cheeses, 69.0 ¥/kg and 68.0 ¥/kg[71] respectively[IV]. More than half of the domestic raw milk is used for the production of drinking milk, of which 78% ends up in retail and 12% is used for school lunches. The total production of drinking milk has significantly reduced over the last decade. The 3,5 million litre produced in 2016 is a mere 79% of the total volume of 2006[71].

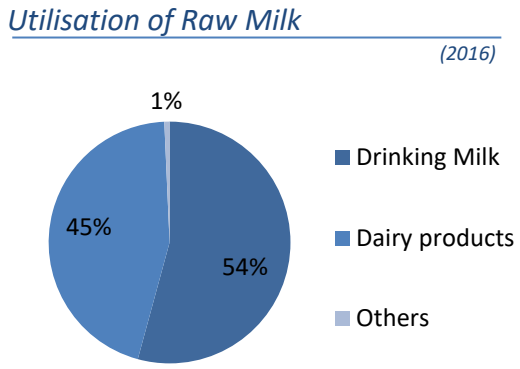


Figure 6: Raw milk utilisation 2016: Source: 日刊酪農速報 [71]

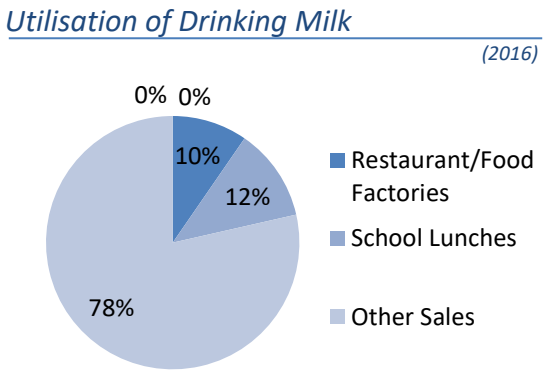


Figure 7: Drinking milk utilisation 2016: Source: 日刊酪農速報 [71]

The 45% of raw milk that not used for the production of drinking milk is processed into almost 700.000 tons of dairy products. 21% of the total volume consists of cheese, 20% of ice cream and 18% of SMP[V]. The former in particular, has taken up a larger share over the years, while the production of SMP drastically decreased. The volume of domestic produced butter has reduced over past decade as well.

[IV] For Hokkaido, April 2017 to March 2018
[V] For 2016

Dairy Production, Japan

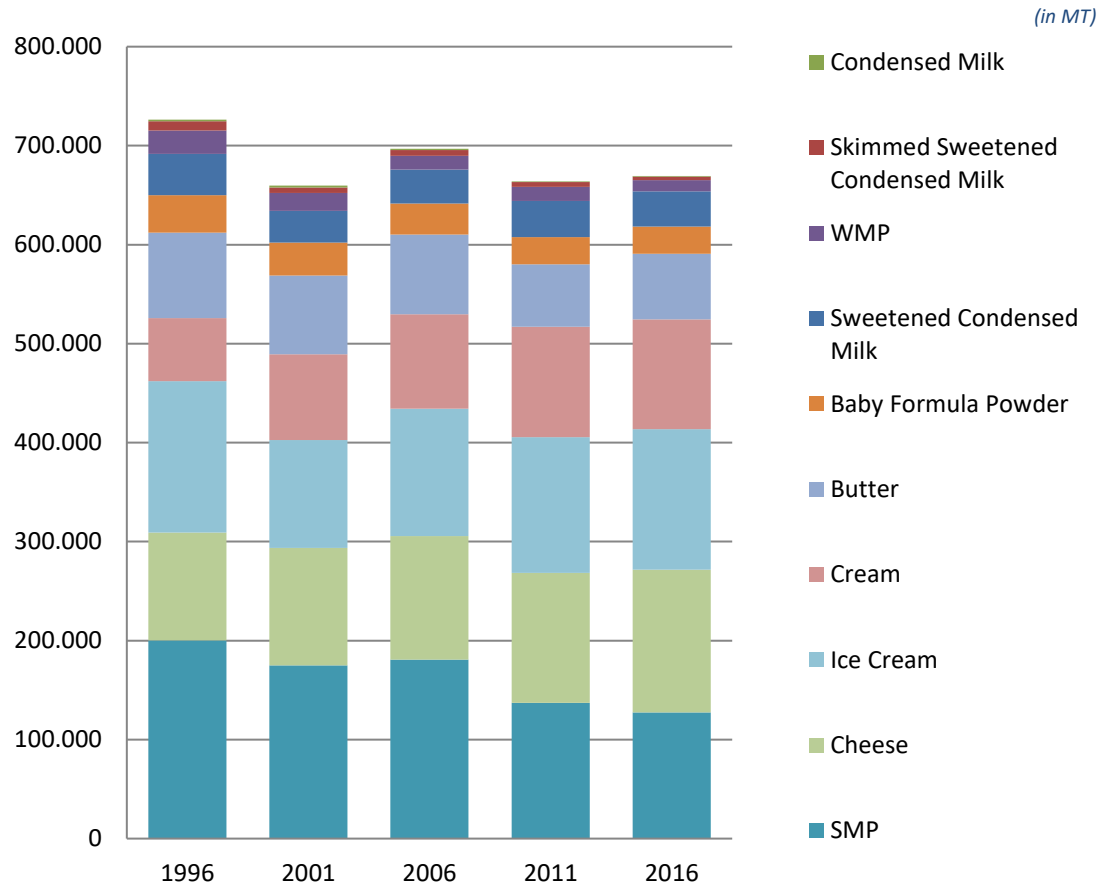


Figure 8: Domestic dairy production in Japan (1996-2001). Based on data by: 日刊酪農速報 [71], MAFF (via ALIC)[72]

The prices for dairy products are quite location dependent. The average price for domestic cheeses for example (see table 21), varies strongly depending on the city. However, while the average price for imported cheeses is significantly higher, it is also much more constant[79] The prices for retail milk in cartons is rather location dependent as well, while the average price for home delivered bottled milk is much more constant throughout the country. Of all the main dairy products, the prices for yoghurt and butter seem to be most constant.

Average Dairy Prices Per City 2017							
Location	*Fresh Milk[I]*		*MP[II]*	*Butter[III]*	*Cheese[IV]*		*Yoghurt[V]*
	Bottle	*Carton*	*800 gr*	*200 gr*	*Domestic*	*Imported*	*400/450gr*
Sapporo	¥126	¥198	¥2.061	¥437	¥191	¥732	¥385
Saitama	¥124	¥199	¥2.239	¥440	¥180	¥686	¥369
Tokyo	¥126	¥221	¥2.298	¥430	¥181	¥649	¥366
Yokohama	¥129	¥200	¥2.279	¥437	¥170	¥614	¥366
Kawasaki	¥121	¥192	¥2.395	¥426	¥167	...	¥373
Nagoya	¥123	¥190	¥2.061	¥435	¥173	¥677	¥355
Kyōto	¥120	¥186	¥2.112	¥425	¥192	¥602	¥361
Ōsaka	¥121	¥212	¥2.229	¥435	¥185	¥668	¥367
Kōbe	¥125	¥219	¥2.112	¥396	¥178	¥626	¥377
Fukuoka	¥116	¥203	¥2.293	¥423	¥179	¥710	¥341
Average*	¥121	¥206	¥2.156	¥430	¥182	¥655	¥366
Relative range*	28,0%	47,1%	31,5%	25,6%	58,9%	35,4%	27,6%

I: Bottle (delivered) 180ml / Carton (retail) 1L
II: Modified Milk Powder, canned.
III: Excluding unsalted butter
IV: Domestic (processed), sliced 126/144gr
IV: Imported (natural), French camembert 125gr.
V: Plain, Meiji/Moringa/Megumi
** Total of the 81 largest cities*

Table 21: Average prices for various dairy products in different cities throughout Japan 2017. Based on data by: E-stat[79]

The market for dairy products in Japan is dominated by the three largest companies which make up for over 40% of the total dairy sales[71]. When just taking into account its dairy business, Japan's largest dairy company, Meiji Co., Ltd., takes a share of almost 25% of the nation's total dairy sales of 2016. Overall, the three market leaders show positive results, which bodes well for the state of the Japanese dairy market in general.

	Meiji		Moringa		Megmilk Snow Brand	
	(in million ¥)	*% YOY*	*(in million ¥)*	*% YOY*	*(in million ¥)*	*% YOY*
Sales amount	75.239.100	101,0%	44.431.100	97,9%	23.751.000	101,6%
Pre-tax earnings	7.315.300	119,0%	1.483.600	152,6%	1.479.300	144,3%
Raw Milk Usage	1.317.000	98,6%	736.000	96,2%	1.006.000	96,5%
Pre-tax Profit Margin	9,7%		3,3%		4,1%	
Main Product types (dairy)	Milk/Yoghurt/Ice cream		Milk/ Milk beverages/ Yoghurt/Ice cream		Milk/Cheese/Yoghurt	

Table 22: 2016 sales numbers of three largest dairy companies in Japan. Based on data by: 日刊酪農速報 [71]

The sales numbers for drinking milk seem pretty constant for all three companies. With ¥107.4 billion in sales (€893,5 Mln.)[VI], Meiji clearly is the 2016 market leader by a significant margin compared to Megmilk Snow Brand (¥83.5 Bln./ €694,7 mln.[VI]) and Moringa (¥72.8 Bln./ €605,7 Mln.[VI]).

[VI] Using the 2016 annual average exchange rate (€1/¥120,20). Source: ECB[12].

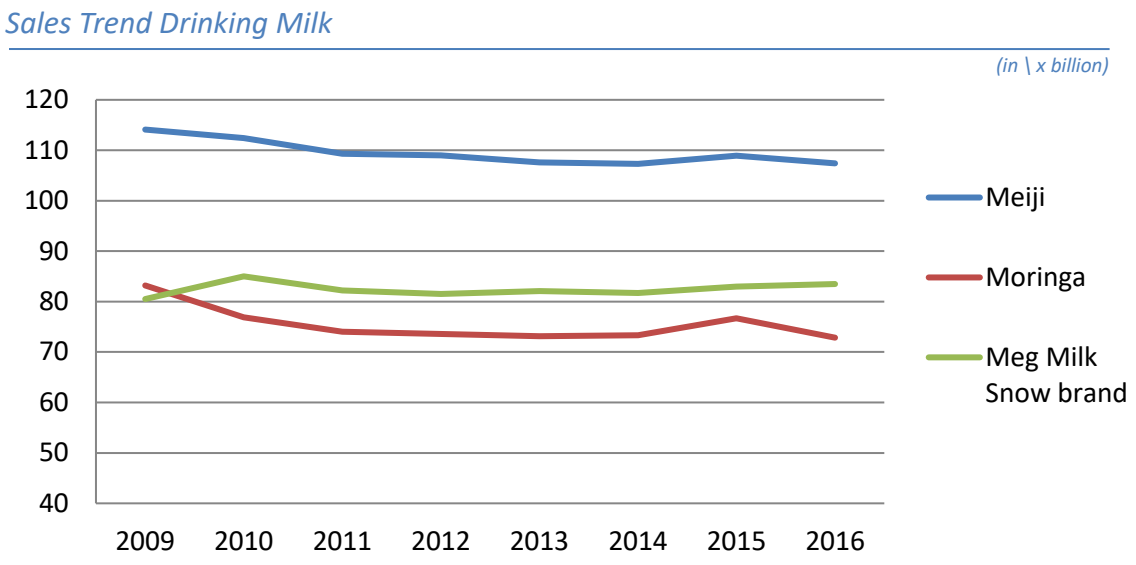


Figure 9: Sales trend of drinking milk in ¥ billion. Based on data by: 日刊酪農速報 [71]

In recent years yoghurt sales seem to have increased significantly, however it appears to be mainly Meiji that has benefited from this trend. Similar to drinking milk, Meiji's yoghurt sales numbers in 2016 (¥206,1 Bln./€1,7 Bln.[VII]) far exceed those of its closest competitors Snow Brand (¥55,9 Bln./€465,1 Mln.[VII]) and Moringa (¥56,6 Bln./€470,9 Mln.[VII])[71].

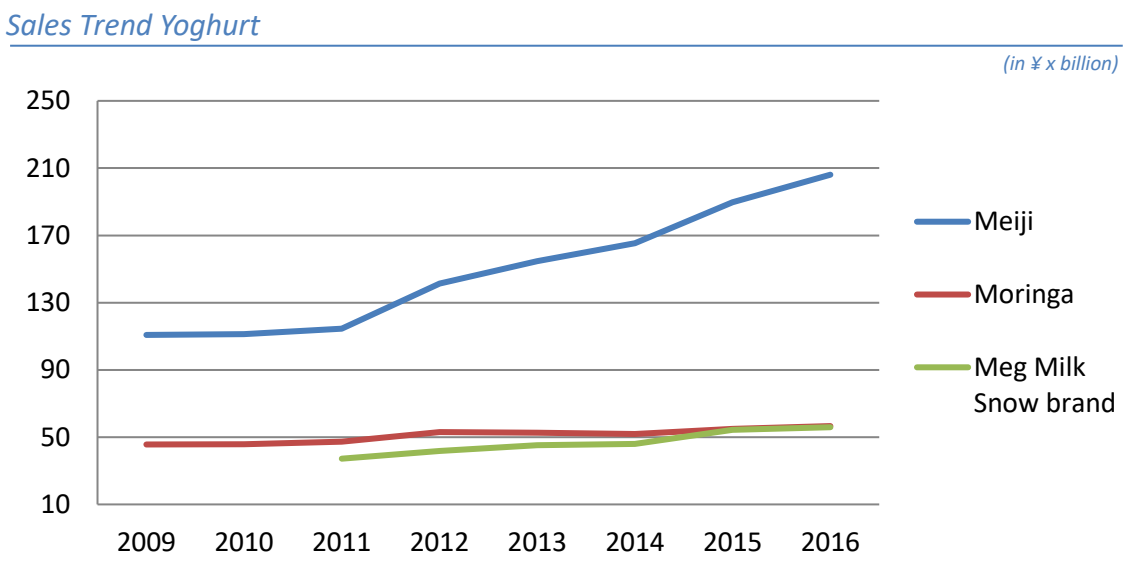


Figure 10: Sales trend of yoghurt in ¥ billion. Based on data by: 日刊酪農速報 [71]

On the ice cream market are Meiji and Moringa the main players. Up to 2016, Moringa has been market leader, showing ¥53,6 billion in sales (€445,9), compared to ¥48,3 billion by Meiji (€401,8[VII]). Both companies (but Meiji in particular) have seen an upward trend in sales result since 2013[71].

The sales numbers of the three mentioned companies regarding other dairy products will be covered in the following chapters.

[VII] Using the 2016 annual average exchange rate (€1/¥120,20). Source: ECB[12].

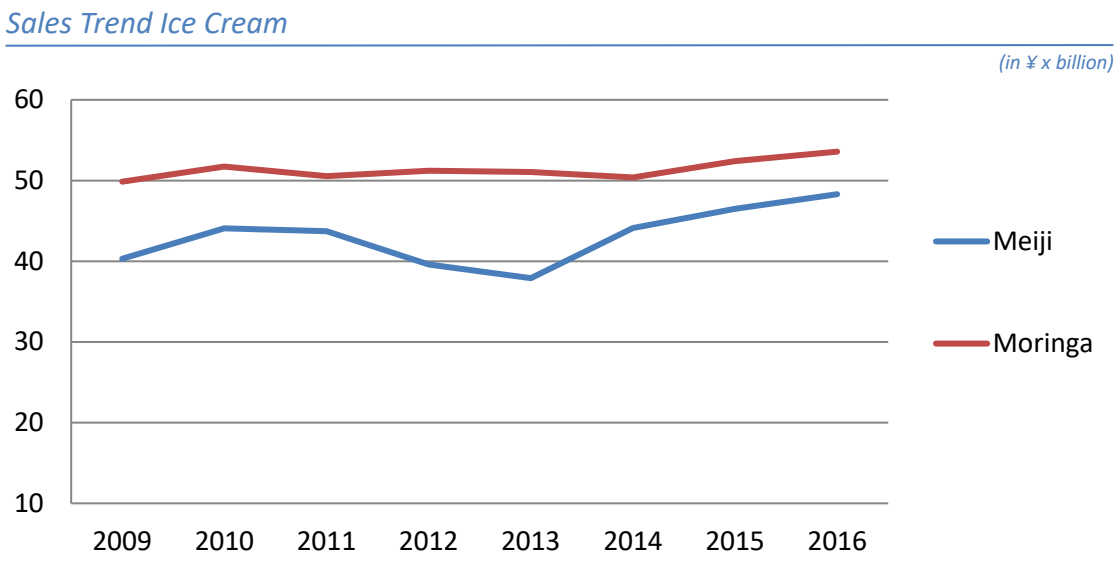


Figure 11: Sales trend of Ice Cream in ¥ billion. Based on data by: 日刊酪農速報 [71]

The overall food service industry in Japan is doing well, showing growth in practically every branch. Particularly markets (potentially) relevant to dairy show promising figures. In the four years from 2011 to 2017, food retail sales increased with 13%, as did the sales for diners and restaurants. These sales numbers are particularly impressive relative to the 10% overall food service industry sales increase over the same period[80]. The food service industry will be covered in greater detail in chapter 5.5 of this report.

Food Industry Sales (¥ x 100 million)					
Sector	*2011*	*2012*	*2013*	*2014*	*2015*
School Meals	¥4.712	¥4.905	¥4.919	¥4.968	¥5.079
Hospital Meals	¥8.231	¥8.130	¥8.082	¥8.203	¥8.207
Nursery Meals	¥2.837	¥2.922	¥2.991	¥3.122	¥3.184
Diners and Restaurants	¥85.462	¥88.158	¥91.150	¥94.348	¥96.905
Japanese Style pub & beer halls	¥9.928	¥9.780	¥10.187	¥10.380	¥10.672
Food retailers	¥62.979	¥64.648	¥64.934	¥67.725	¥71.384
Total food service industry	¥228.282	¥232.217	¥240.099	¥246.326	¥251.816

Table 23: Food Industry Sales per sector in ¥ million. Source: MAFF[80]

Based on the finding covered in this chapter, it seems the market for dairy products in Japan is performing rather well. Particularly considering the fact the domestic raw milk production has been rapidly declining, a trend that is expected to progress in coming years. From the perspective of potential importers, this could be an interesting development.

4.3 Cheese

The market for cheese has seen a major surge in recent years, resulting in a notable increase in consumption and expenditure per household. Due to the growing availability of western cuisine in Japan over pas decades, cheese has become a more and more accepted part of the daily diet. In more recent years however, Japan has developed its own cheese culture, taking in a more prominent place in Japan's society. The variety of high quality domestic and imported cheese in supermarkets and specialized shops is increasing to fulfil the growing demand for premium and exclusive cheeses. At the same time, cheese products in the form of snacks are becoming an ever more common item in local convenience stores[81]. However, the domestic production of cheese is suffering from the nation's decreasing number of dairy farms and declining milk production. As the price offered for raw milk for the production of drinking milk is high, little is allocated towards the production of cheese and other dairy products, leaving the country dependant on imports to suit domestic demand.

Cheese Production & Consumption

(MT x 1000)

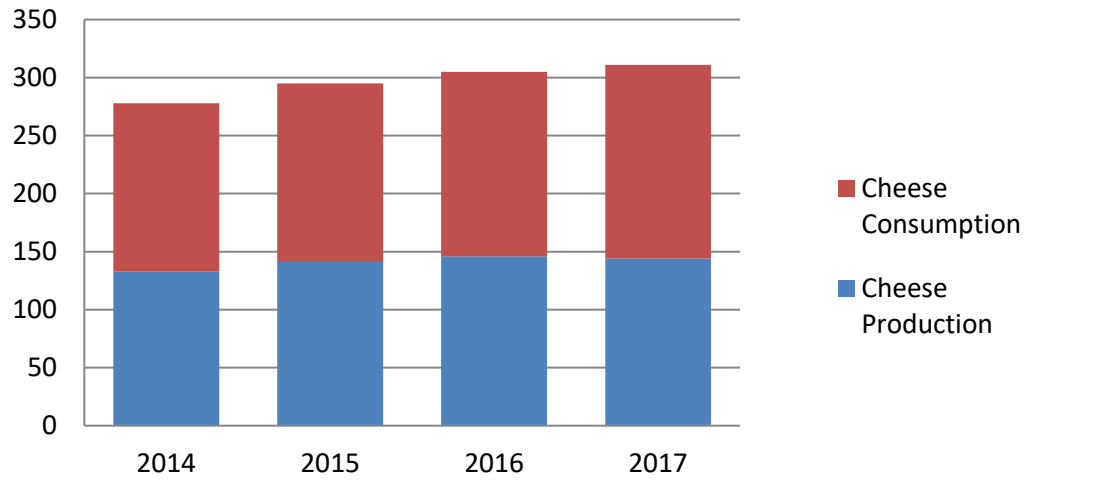


Figure 12: Domestic Japanese Cheese production and consumption. Based on data by: 日刊酪農速報[71], MAFF (via ALIC)[72]

4.3.1 Consumption & Expenditure

While the Japanese consumption of cheese is only a fraction of what is common in the EU or other western nations, the year over year growth shows a strong upwards trend, indicating cheese is becoming an accepted part of Japanese food culture[82]. In the four years up to 2017, the consumption of cheese saw an increase of 12,4% to 2,44kg per capita[77, 82]. In comparison, the average annual cheese consumption per capita in European countries was 18kg in 2017, which is a 3,5% increase from 2014[82]. A similar trend can be seen in the household expenditure on cheese, which increased 18,7% in the four years up to 2016 to ¥5.200[77] (€43,30[VIII]).

[VIII] Using the 2016 annual average exchange rate (€1/¥120,20). Source: ECB[12].

Annual Cheese Consumption Japan				
	2014	*2015*	*2016*	*2017*
Total (MT x 1000)	278	295	305	311
Per Capita (kg)	2,17	2,31	2,39	2,44
	2013	*2014*	*2015*	*2016*
Household Expenditure	¥4.376	¥4.721	¥4.936	¥5.194

Table 24: Annual cheese consumption in Japan. Based on data by: USDA GAIN[77],Clal.it[82]

While the total consumption increased, the ratio of natural/processed cheese has been relatively stable with only marginal changes in favour of natural cheese. In the decade up to 2016, the ratio has been around 66% natural and 34% processed cheese[72, 80]. What should be noted however is the fact that the domestic production of processed cheese has increased by 28% in the 8 years from 2008 to 2016; the production of natural cheese however, has only increased 18% over the same period[80].

Most Consumed Natural Cheeses 2017		
	Consumption in MT	*% Imported*
Shredded Cheese	97.100	81,3%
Cream Cheese	78.200	94,9%
Other Fresh Cheese	12.900	38,0%
Very Hard Cheese	5.900	96,6%
Hard/Semi-hard Cheese	5.400	81,5%
Camembert	4.700	10,6%

Table 25: Most consumed types of cheese in Japan, 2017. Based on data by: Journal of Tein Shokuryo (via Lacto Japan)[83]

Although most of the natural cheese types are coming from overseas, some types are predominately produced domestically. Fresh cheese in particular is, not surprisingly, largely produced domestically as transportation is complicated and costly. More surprising is the domestic contribution in the supply of camembert, of which only 10,6% is imported[80].

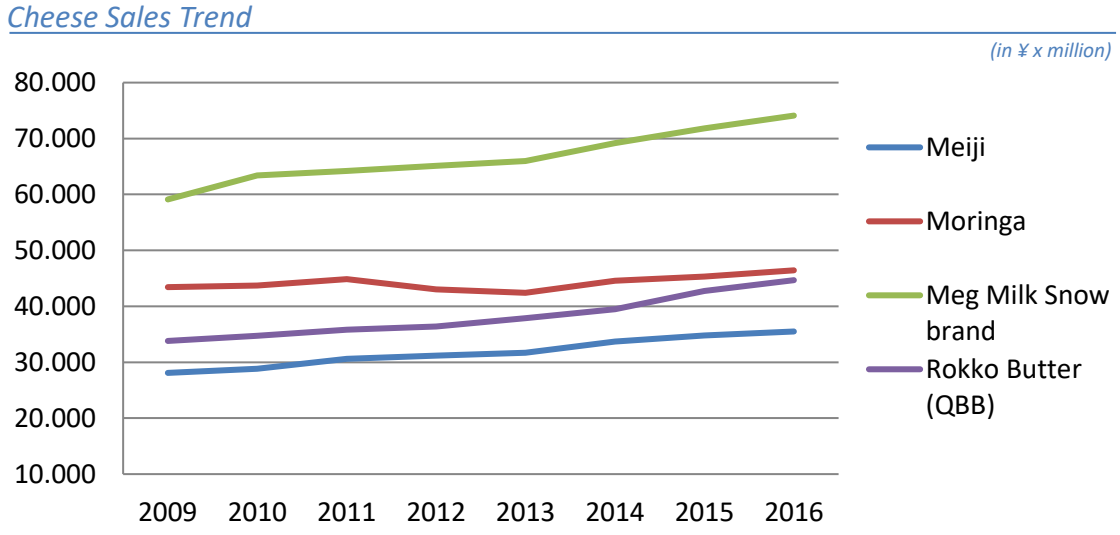


Figure 13: Cheese sales trends Japan, of the three largest companies. Based on data by: 日刊酪農速報 [71]

4.3.2 Imports

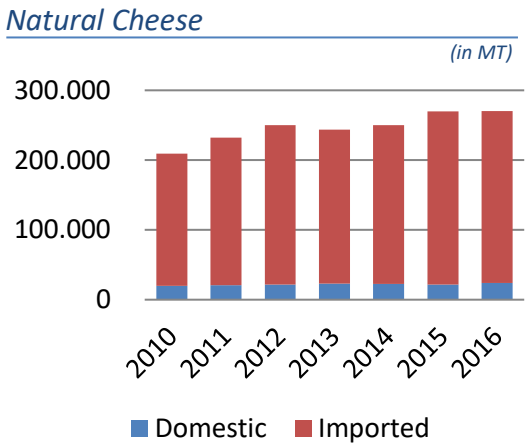
As the demand for cheese over the years increased and the domestic production declined, imports have shown significant growth. In 2017, cheese was the largest imported dairy product by both volume and value[82]. The 273 thousand tons of imported cheese in 2017 was an increase of 6% over the previous year[72, 80]. In terms of value, the ¥130,4 bln (€1,03 bln[IX]) worth of imported cheese in 2017 was a 23% increase over 2016.

Cheese Import 2017 by Category							
HS Code	*Volume*			*Value*			
	MT	*% of total*	*YOY*	*¥ mln.*	*% of total*	*YOY*	*¥/kg*
"Fresh (unripened or uncured) cheese, including whey cheese, and curd"							
0406.10-010	4.135,2	2%	63%	¥1.849,5	1%	75%	¥447,3
0406.10-020	4.350,3	2%	94%	¥2.011,0	2%	99%	¥462,3
0406.10-090	85.623,5	31%	105%	¥39.590,1	30%	122%	¥462,4
"Grated or powdered cheese, of all kinds"							
0406.20-100	2.030,0	1%	93%	¥1.487,6	1%	92%	¥732,8
0406.20-200	2.923,1	1%	97%	¥3.797,9	3%	107%	¥1.299,3
"Processed cheese, not grated or powdered"							
0406.30-000	7.309,9	3%	104%	¥4.096,4	3%	114%	¥560,4
"Blue-veined cheese and other cheese containing veins produced by Penicillium roqueforti"							
0406.40-090	1.082,6	0%	97%	¥1.338,1	1%	101%	¥1.236,0
"Other cheese"							
0406.90-010	38.262,7	14%	102%	¥17.100,7	13%	121%	¥446,9
0406.90-090	127.059,3	47%	111%	¥59.082,6	45%	131%	¥465,0
Total	272.776,4		106%	¥130.353,8		123%	

Table 26: 2017 Cheese imports by category. Based on data by: Japan Customs[11]

Not all of the cheese categories showed the same increase in import however. Fresh cheeses, grated and powdered cheese, as well as blue veined cheese saw lower import numbers in 2017 compared to the year before. Although their overall share in volume is low, blue veined cheeses and grated or powdered cheeses had the highest value per kg.

[IX] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12].



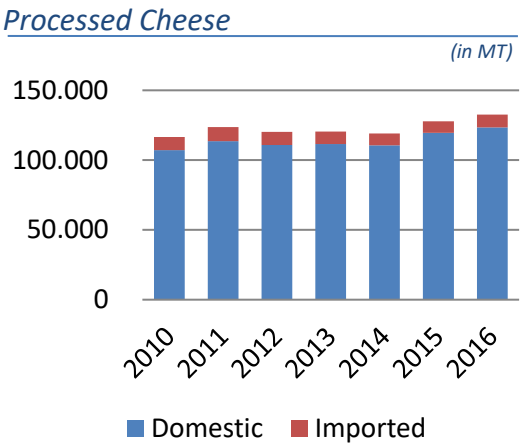


Figure 14: Natural cheese demand. Source MAFF (via ALIC)[72]

Figure 15: Processed cheese demand. Source: MAFF (via ALIC)[72]

The increasing import numbers for cheese have been driven mostly by the increasing demand for natural cheese. While the import of processed cheese has been relatively stable the past decade, the volume of imported natural cheese grew with almost 21%. In 2016, 96% of natural cheese was imported, compared to only 7% of processed cheese[72].

The Price paid for cheese has been relatively consistent over the years, in particularly the price for processed cheese has shown little fluctuation[72].

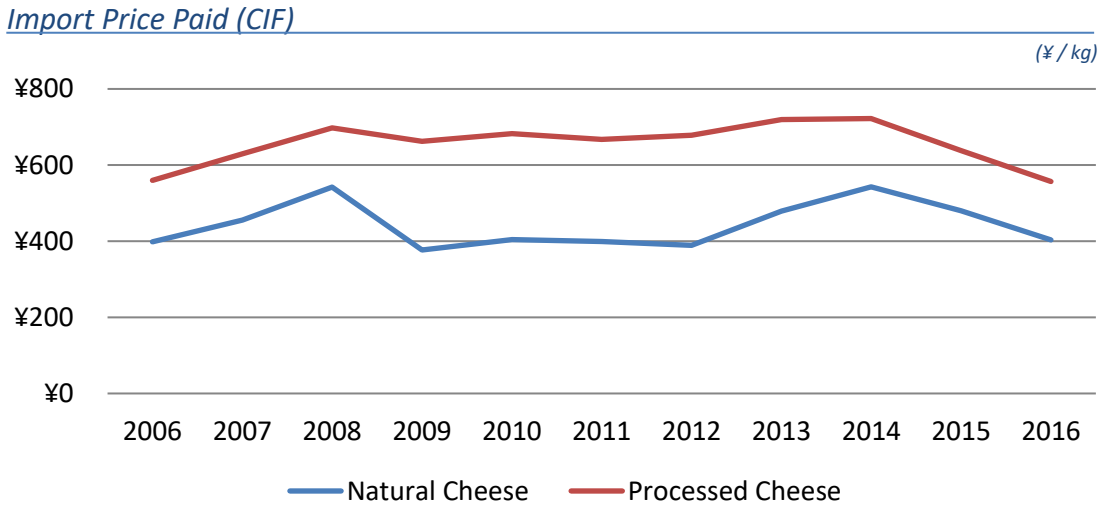


Figure 16: Import price paid (CIF) for Cheese over time, 2006-2016. Based on data by: MAFF (via ALIC)[72]

The largest origin countries for Japanese Cheese imports are traditionally, Australia, New Zealand, the US, and the EU. Although Australia used to be Japan's largest source for cheese, the distribution among origin countries has changed rapidly in recent years, in favour of the EU.

Cheese Import by Origin 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
USA	31.616	¥16.288	¥515,2
Australia	82.953	¥35.566	¥428,7
New Zealand	62.633	¥27.448	¥438,2
EU	91.598	¥48.624	¥530,8
Other	4.011	¥2.447	¥609,9*
Total	272.814	¥130.373	¥477,9*

** Average*

Table 27: Cheese Import. Based on data by: Japan Customs[11]

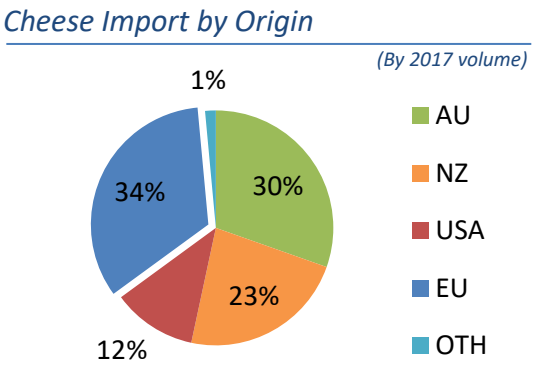


Figure 17: Cheese import. Based on data by: Japan Customs[11]

In 2017, the EU was Japan's largest source of cheese, both in volume and in value. The 91.6 thousand tons of cheese comprised 34% of total import volume, and 37% of total import value. Compared to the other main cheese origins, EU cheeses had, in average, the highest value per kg (¥530.8/kg).

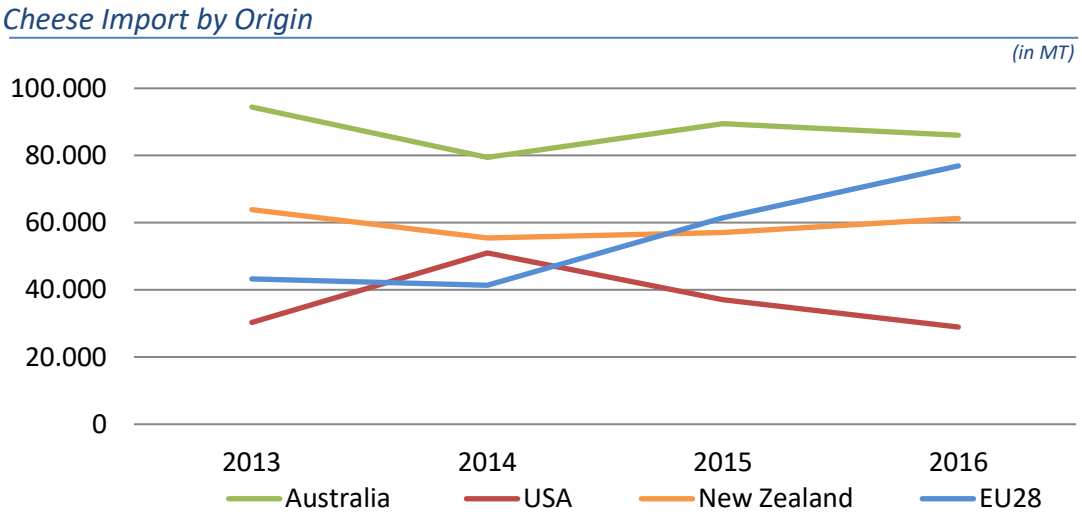


Figure 18: Cheese import by origin over time, 2013-2016. Based on data by: Japan Customs[11]

In the last five years, the EU has surpassed New Zealand and the US as major cheese supplier to Japan and has caught up with Australia. The increase of EU imports has been at the expense of the US in particular, as it has lost a large share in the total Japanese imports. The competition is mainly in the market for natural cheese however, as 99% of the imported processed cheese in 2017 originated from the EU.

Cheese Imports by Origin 2017				
	Natural Cheese (MT)		*Processed Cheese (MT)*	
Australia	82.881	31%	72	1%
New Zealand	62.634	24%	0	0%
USA	31.550	12%	66	1%
Others	3.968	2%	1	0%
EU28	82.399	31%	9.198	99%
Total	263.432	100%	9.330	100%

Table 28: Natural and Processed cheese imports by origin, 2017. Based on data by: Japan Customs[11]

Natural cheese is used for a wide variety of purposes, only a small part is meant for direct consumption. In fact, 33 thousand tons (14% of total) of the imported natural cheese in 2015 ended up in retail, of which more than half came from the EU[83]. About 31% of the total 242 thousand tons was used for the production of processed cheese, of which more than one third came from Australian imports. The volume of imported natural cheese allocated for the production of processed cheese was a 10% increase compared to the previous year. Nearly 13% of natural cheese was used for the production of confectionery and bakery products, most of which was imported from Australia. The production of frozen en delivered pizzas took up about 6%, with the majority of used cheese being imported from the US. The majority of natural cheese however, a total of 89 thousand tons (37% of total), was used for industrial processing. The majority of cheese meant for industrial processing was shredded (48%), of which most was imported from New Zealand. The cheese in block form made up for 42% of the natural cheese for industrial processing, which was almost a 32% increase from the year before[83].

Quantity By Use of imported Natural Cheese 2015 (in MT)						
	Total Import	*For Making P.C.*	*Retail*	*Confectionery/Bakery*		
				Block	*Grated*	*(Processed)*
Australia	89.344	25.200	2.544	18.600	500	(0)
New Zealand	57.074	23.100	9.174	4.000	150	(0)
US	36.645	11.000	4.395	2.000	350	(320)
EU	54.125	14.845	15.758	3.150	1.765	(3.480)
Argentina	3.372	150	667	190	45	(0)
Switzerland	507	0	117	80	0	(0)
Canada	232	165	0	0	0	(0)
UK	164	50	44	0	0	(0)
Others	184	22	64	0	0	(0)
Total	241.647	74.532	32.763	28.020	2.810	
YOY	*108,3%*	*109,9%*	*108,4%*	*107,9%*	*92,3%*	*95,2%*

	Industrial Processing				*Pizza*	
	Block	*Shredded*	*Grated*	*Packed*	*Delivery*	*Frozen*
Australia	32.240	7.500	1.000	60	900	800
New Zealand	1.700	15.100	750	200	1.100	1.800
US	1.500	9.100	1.600	500	4.500	1.700
EU	1.885	9.552	2.430	1.980	1.360	1.400
Argentina	160	1.500	140	0	190	330
Switzerland	140	150	0	20	0	0
Canada	0	67	0	0	0	0
UK	10	60	0	0	0	0
Others	50	48	0	0	0	0
Total	37.685	43.077	5.920	2 760	8.050	6.030
YOY	*131,5%*	*98,2%*	*93,7%*	*95,9%*	*102,7%*	*90,5%*

Table 29: Utilisation of imported cheese, 2015. Source: Journal of Tein Shokuryo (via Lacto Japan)[83]

4.3.3 Imports from EU

In 2017, the EU exported a total of 826 thousand tons of cheese, a 4% increase over the year before. The majority (17%) of this cheese was exported to the US. Japan, the second largest destination for EU cheese, imported 95 thousand tons, almost 12% of EU's total cheese export in 2017 and a 20% increase over the year before[84,85]. The EU's main cheese exporters in 2017 were the Netherlands, exporting 17% of total, Germany (15%), France (14%), Italy (12%) and Denmark (9%)[10]. The EU has historically been one of Japan's main sources for cheese, together with the US, Australia and New Zealand. However, as indicated by recent import data, the position of EU cheese on the Japanese market has drastically improved over recent years. The import of EU originating cheese in 2017 even surpassed cheese imports from Australia in both quantity and value.

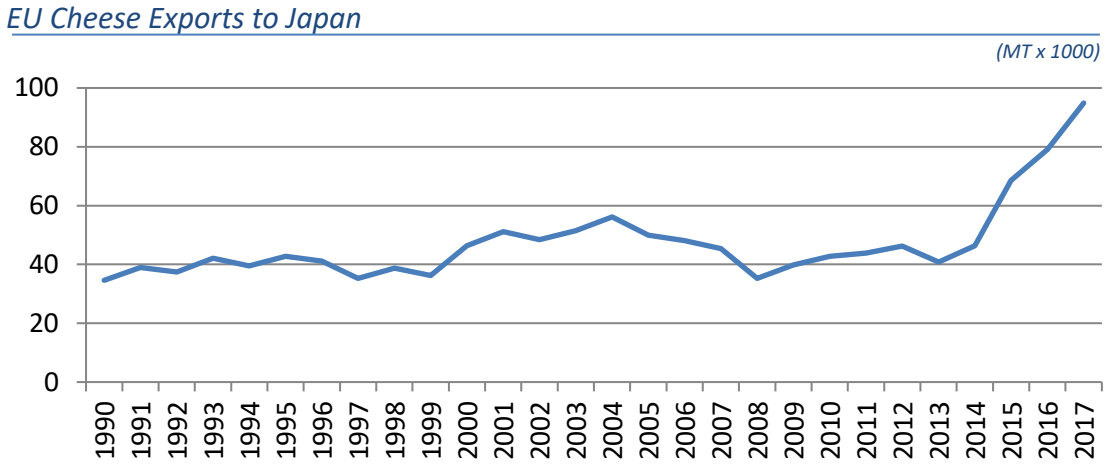


Figure 19: EU cheese exports to Japan, 1990-2017. Based on data by: EUROSTAT COMEXT (via European Commission)[84]

The largest part of the in 2017 imported European cheese came from the Netherlands, which equalled 31% of the total 95 thousand tons[85]. Denmark imported 19% of total cheese, of which one fifth was processed cheese. The majority of processed cheese from the EU (7,1 thousand MT) originated from France, which made up for 76% of Japans total processed cheese imports[71].

EU Cheese Export to Japan 2017			
Origin	*MT*	*¥ mln.*	*¥/kg*
Netherlands	27.551	¥10.930	¥396,7
Denmark	16.826	¥9.000	¥534,9
Germany	16.181	¥6.668	¥412,0
France	10.878	¥7.993	¥734,8
Italy	10.319	¥9.736	¥943,6
Ireland	6.835	¥2.819	¥412,5
Belgium	1.033	¥496	¥480,4
Finland	843	¥330	¥391,7
Others	1.134	¥652	¥575,2*
Total EU	91.599	¥48.624	¥530,8*

** Average*

Table 30: EU Cheese. Based on data by: Japan Customs[11]

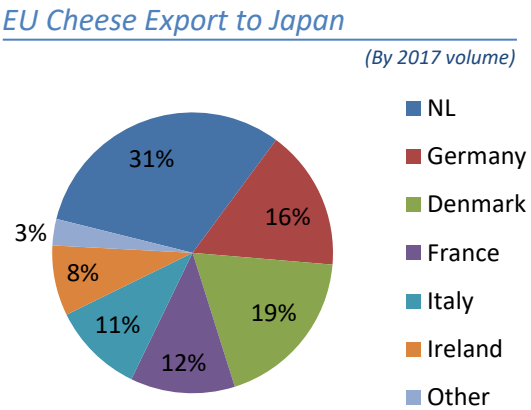


Figure 20: EU Cheese. Based on data by: Japan Customs[11]

When looking at the utilisation of imported cheese in 2015 (table 31), it shows that the majority of imported natural cheese from the EU is used for industrial processing. Industrial processing

took nearly 30%, or 16 thousand tons, of the total EU natural cheese imports, of which 3,8 thousand tons came from the Netherlands and 3,4 thousand tons from Italy. 60% of all natural cheese meant for industrial processing was shredded. Compared to the total cheese imports, a relatively high percentage of EU cheese (30%) was directly used for retail, while 27% was allocated towards the production of processed cheese.

Quantity By Use of imported Natural Cheese 2015 (in MT), EU						
	Total Import	*For Making P.C.*	*Retail*	*Confectionery/Bakery*		
				Block	*Grated*	*(Processed)*
Netherlands	17.569	7.100	5.249	500	400	(0)
Germany	12.016	4.500	3.346	300	0	(0)
Denmark	8.476	1.200	2.526	1.200	450	(1.450)
Italy	8.372	70	2.312	950	900	(0)
France	3.265	260	2.050	200	15	(2.030)
Ireland	2.859	1.600	59	0	0	(0)
Belgium	1.402	100	202	0	0	(0)
Finland	77	15	0	0	0	(0)
Spain	55	0	5	0	0	(0)
Greece	34	0	9	0	0	(0)
Total	54.125	14.845	15.758	3.150	1.765	

	Industrial Processing				*Pizza*	
	Block	*Shredded*	*Grated*	*Packed*	*Delivery*	*Frozen*
Netherlands	250	2.700	800	60	260	250
Germany	150	2.500	20	50	600	550
Denmark	220	2.000	300	180	200	200
Italy	750	240	1.300	1.150	300	400
France	200	0	10	530	0	0
Ireland	250	950	0	0	0	0
Belgium	0	1.100	0	0	0	0
Finland	0	62	0	0	0	0
Spain	50	0	0	0	0	0
Greece	15	0	0	10	0	0
Total	1.885	9.552	2.430	1.980	1.360	1.400

Table 31: Utilisation of imported cheese from EU, 2015. Source: Journal of Tein Shokuryo (via Lacto Japan)[83]

4.3.4 EU Cheese Imports Covered by the EPA

The import analysis shows the EU having a strong position on the Japanese market for foreign cheese. As the EPA is yet to take action the situation is likely to change, however, as is shown in chapter 3.1, the agreement will not affect all cheese imports equally.

In order to get an idea of the impact of the EPA on European cheese exports to Japan, the following subchapter will look at the EU imports per tariff line by using the latest available import statistics of 2017 as an example.

It is important to note here however, that after the EPA has taken action, the import quantities and distribution among EU member states are very likely to be different than was the case in 2017.Therefore, the here following statements and figures are merely a simplified illustration of

imports that are likely to profit from the agreement. By no means should the content of this chapter by itself be interpreted as a prediction of how the EPA will affect EU exports.

With that being said, when taking the 2017 EU exports to Japan as a reference it shows that 94% of the cheese belongs of tariff lines that are, in one way or another, expected to benefit from the EPA.

The largest quantity of EU cheese, 82%, falls under tariff line *0406.90.090*, with description *"Other cheese"*. Depending on the exact specifications, imports under this tariff line will either benefit from an EU exclusive tariff quota and (gradually) eliminated custom duties (**TRQ-25**), or, will not be restricted by a quota and also benefit from (gradually) eliminated custom duties (**B15**). However, in either case, exports will benefit from a slight reduction in custom duties right after the agreement takes action (see chapter 3).

Cheese exports that only fall under the new tariff quota **TRQ-25** compose 11% of the total 2017 volume. Imports of the same year that would only benefit from the eliminated custom duties (category **B15**) compose only 1% of all 2017 cheese exports to Japan.

The remaining 6% of the 2017 exports consist of the tariff lines that are not covered by the EPA, for these imports the applying quota(s) and/or custom duties remain as was the case before the EPA.

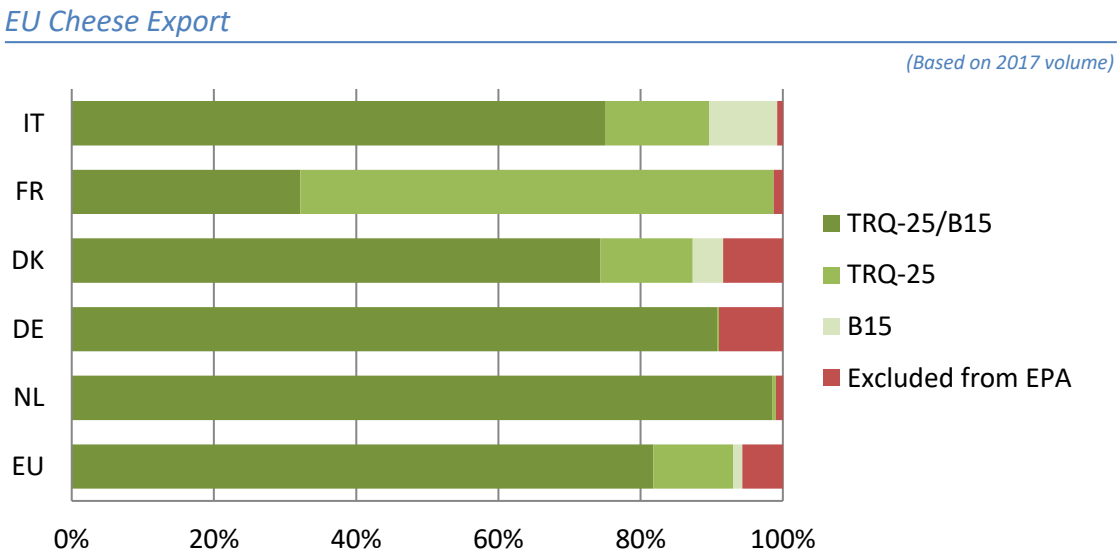


Figure 21: Composition of EU cheese export to Japan per tariff line, as covered by the EPA: Based on data by: Japan Customs[11]

Figure 21 above shows the share of cheese exports that would be covered by the EPA for the five largest cheese exporting countries from the EU[X]. In all five cases, the vast majority of imports volume consists of tariff lines that are covered by the agreement, particularly for imports from Italy, France and the Netherlands.

[X] For 2017 export to Japan.

4.4 Butter

In recent years the world faced a shortage in butter supplies, driving prices to exorbitant levels. Poor harvest results lead to limited availability of cattle feed, forcing the world's two largest butter producers, New Zealand and the EU, to decrease production and, subsequently, their exports[86, 87]. The global demand for butter meanwhile, only increased. While largely dependent on imports, Japan's domestic butter production also suffered from the country's declining raw milk output, further driving up prices[77, 88]. The fact that butter imports are strictly regulated through government procurement does not help the country's butter market[88, 89]. As one would expect, the overall consumption in Japan reduced during the period of inflated prices. But as domestic production shrunk as well, the country remains dependent on imports to meet its demands.

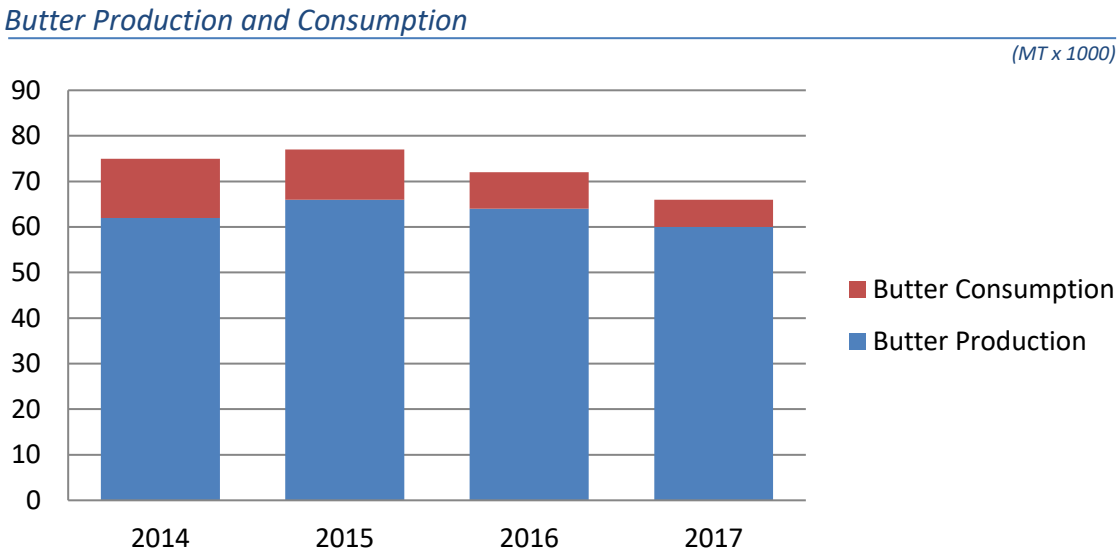


Figure 22: Butter production & consumption. Based on data by: USDA GAIN[77, 78], MAFF (via Lacto Japan)[83]

4.4.1 Consumption & Expenditure

The Japanese butter consumption is following a downward trend as a result of the before mentioned inflation and shortages in recent years. However, as the annual household expenditure has been relatively constant during this period[77], the decrease in consumption can most likely be attributed to the risen prices (or even lack of availability), not necessarily a decrease in demand. The demand for butter could in fact see an increase in coming years, as with the growing popularity of the western diet, bakery products and pastries are expected to grow more popular as well[89] (more on this in chapter 5). Similar to cheese, the butter consumption per capita is significantly lower to the European average, which was 4,2kg in 2017 compared to the Japanese average of 0,52kg the same year.

Butter Consumption				
	2014	*2015*	*2016*	*2017*
Total (MT x 1000)	75	77	72	66
Per Capita (kg)	0,59	0,6	0,56	0,52
	2013	*2014*	*2015*	*2016*
Annual Household Expenditure	¥929	¥995	¥959	¥981

Table 32: Butter consumption in Japan, 2014-2017. Based on data by: USDA GAIN[7,8], MAFF (via Lacto Japan)[83], Clal.it[82]

The total consumption of butter reduced with 14% in the three years up to 2017, to 66 thousand tons compared to the 77 thousand tons in 2015. During this time the wholesale price of butter reached record heights, affecting small businesses and consumer sales in particular.

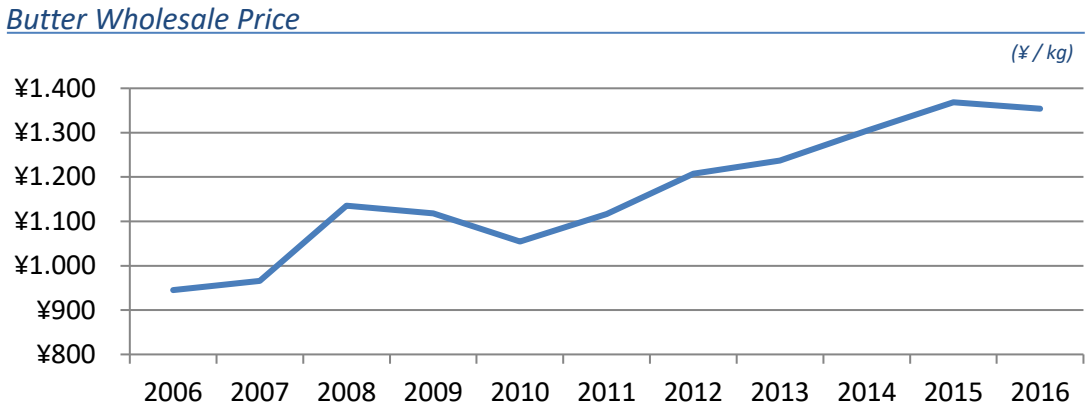


Figure 23: Butter wholesale price Japan over time, 2006-2016. Based on data by: MAFF (by ALIC)[72]

The majority of the total available butter is used for industrial food manufacturing (69%), in particular confectionary and deserts, which takes a share of 32% of the total butter supply. Another 22% ends up in retail meant for home use, of which 98% is produced from domestic dairy[88]. Most of the imported butter finds it use in industrial food manufacturing (77%). Other large markets for butter are the restaurant and hotel industry, using 11,4% of available butter, and the bakery industry (9,4%).

Butter Utilisation 2015 (in MT)						
	Total	*%*	*Domestic*	*%*	*Imported*	*%*
Dairy Industry (internal consumption)	6.900	9,2%	4.100	6,7%	2.800	20,1%
For home use (retail)	16.600	22,1%	16.200	26,4%	400	2,9%
Industrial Use (wholesale)	51.700	68,8%	41.000	66,9%	10.700	77,0%
-Ice Cream	3.600	4,8%	2.500	4,1%	1.100	7,9%
-Processed Fats	3.700	4,9%	1.700	2,8%	2.000	14,4%
-Bread/Bakery	7.100	9,4%	6.100	10,0%	1.000	7,2%
-Confectionary	24.400	32,4%	19.800	32,3%	4.600	33,1%
-Drinks/beverages	300	0,4%	100	0,2%	200	1,4%
-Prepared meals	3.800	5,1%	3.100	5,1%	700	5,0%
-Restaurant/Hotel	8.600	11,4%	7.600	12,4%	1.000	7,2%
-Other	200	0,3%	100	0,2%	100	0,7%
Total	75.200	100%	61.300	100%	13.900	100%

Table 33: The utilisation of butter by industry, 2015. Based on data by: ALIC[90]

The reduced consumption of butter is, only to a small degree, visible in the sales results of Japan's three largest butter selling companies. Over the seven years from 2009 to 2016 the sales numbers seem relatively steady, with only slightly lower results in most recent years. This could imply that it has been the smaller companies in particular that are affected by the high prices, shortages, and (resulting) diminished sales.

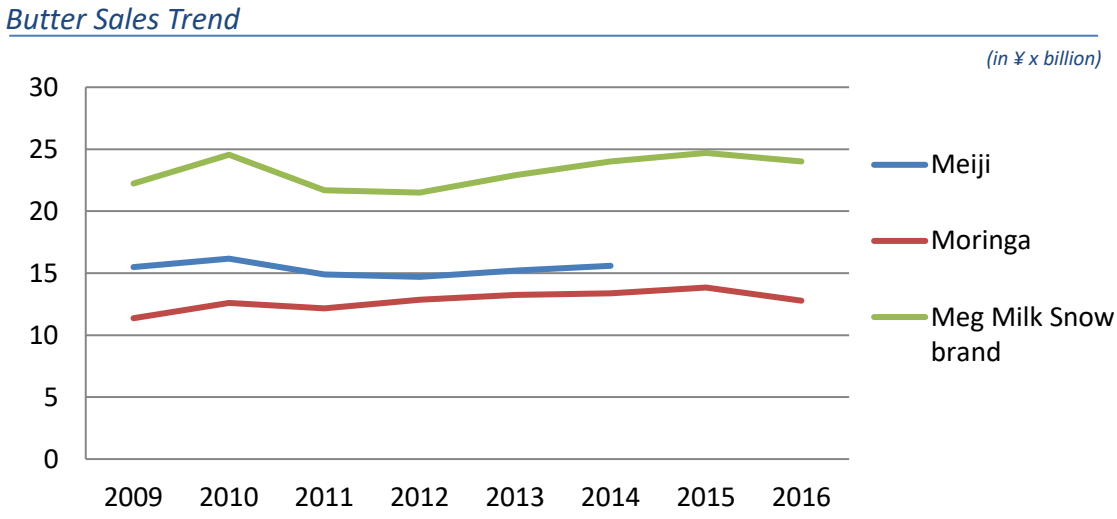


Figure 24: Butter sales trends Japan, of the three largest companies. Based on data by: 日刊酪農速報[71]

4.4.2 Imports

The Japanese Import volume of butter has been significantly reduced in recent years due to the global scarcity. For example, the 7.9 thousand tons of imported butter in 2017 are a mere 65% of the 12,2 thousand tons import from 2016[91]. In terms of value however, the ¥5 billion (€39,5 million)[XI] worth of imported butter is a 7% increase from 2016[91]. It is important to note that the

[XI] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

drastic decrease from 201 to 2017 is mainly caused by ALIC purchases, and are therefore not necessarily a reliable indicator of market demand.

Butter Import by Category 2017							
HS Code	*Volume*			*Value*			
	MT x 1000	*% of total*	*YOY*	*¥ x million*	*% of total*	*YOY*	*¥/kg*
For "the Pooled Quota"							
0405.10-121	206,1	3%	128%	128,2	3%	178%	622,0
0405.10-221	27,2	0%	-	18,3	0%		674,2
For ALIC							
0405.10-110	7421,2	94%	63%	4557,3	91%	106%	614,1
Other Butter							
0405.10-129	234,7	3%	78%	308,9	6%	99%	1316,3
0405.10-229	9,4	0%	119%	10,9	0%	122%	1152,5
Total	7898,6		65%	5023,7		107%	

Table 34: Butter imports by category, 2017. Based on data by: Japan Customs[91]

Traditionally, the majority of foreign butter is imported from New Zealand; however, in most recent years the gap with the Japan's second largest source of butter, Europe, has shrunk significantly. In 2017 just over half the import originated from New Zealand, and 47% from the EU. In terms of value however, EU originating imports just about topped those from New Zealand. The cumulative share of all 2017 butter imports besides those from New Zealand and the EU was almost negligible.

Butter Import by Origin 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
USA	24,9	¥18	¥731,2
Australia	42,8	¥26	¥598,1
New Zealand	4.051,3	¥2.433	¥600,6
Switzerland	47,0	¥37	¥792,7
EU	3.712,6	¥2.494	¥671,7
Other	20,2	¥16	¥779,3*
Total	7.898.8	¥5.024	¥636,0*

** Average*

Table 35: Butter import. Based on data by: Japan Customs[91]

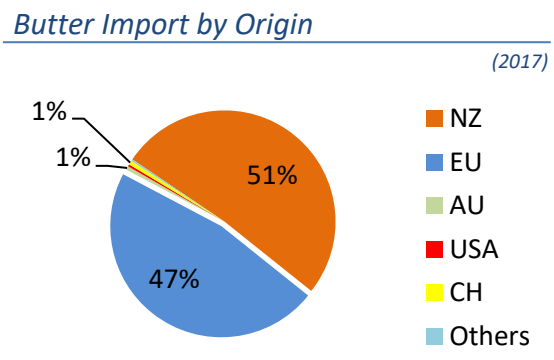


Figure 25: Butter import. Based on data by: Japan Customs[91]

In 2015, New Zealand originating imports composed 72% of the total imported butter, while the EU took a 23% share. The Following years the proportions of butter exports to Japan levelled out to 49% from New Zealand and 46% from the EU in 2016 and 51%/47%, respectively, in 2017.

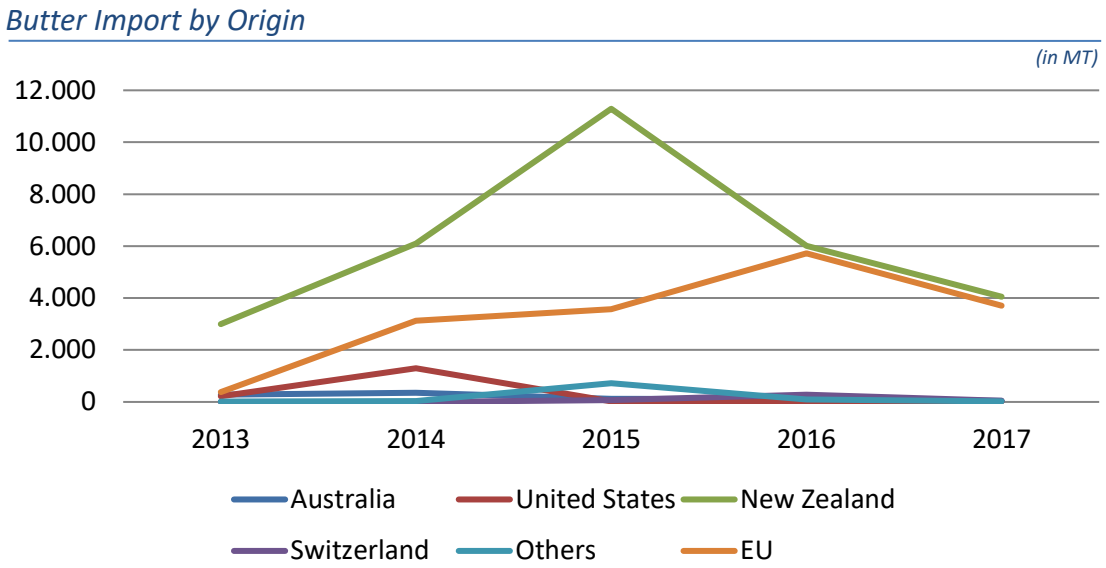


Figure 26: Butter import by origin over time, 2013-20178. Based on data by: Japan Customs[91]

The exports of butter to Japan are restricted and regulated through a government trading system. In efforts to protect the domestic dairy farm industry, private butter imports are subjected to exorbitant tariffs and therefore only make up for a minor part of total imports. The domestic supply and demand is monitored by the Japanese Ministry of Agriculture, Forestry and Fishery (MAFF). Butter imports within the annual quota, as well as emergency purchases for anticipated shortages by MAFF, are handled by the Agriculture and Livestock Industries Corporation (ALIC), the country's state trading enterprise.

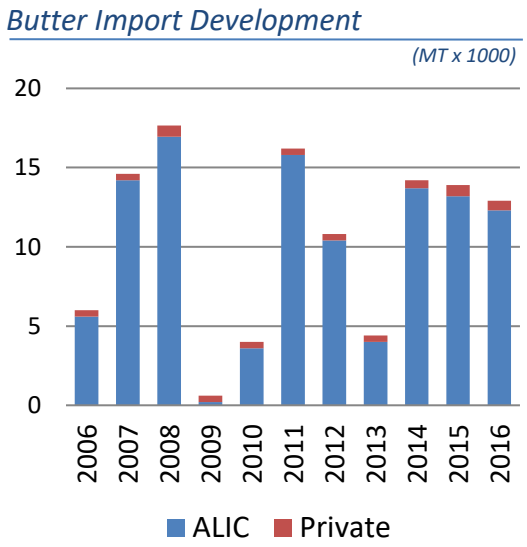


Figure 27: Butter import. Based on data by: MAFF (via ALIC)[72]

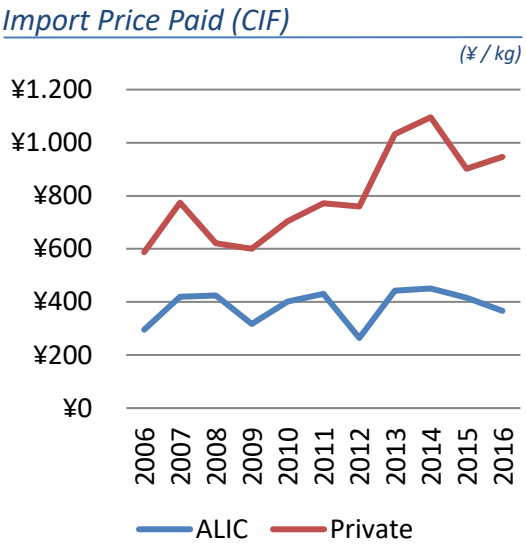


Figure 28: Import price. Based on data by: MAFF (via ALIC)[72]

4.4.3 Imports from EU

In 2017 the EU exported a total of 137 thousand tons of butter. Although this is a slight decrease compared to the 162 thousand tons in 2016, the EU is still the world's second largest exporter of butter. The EU's main butter exporters are France, good for 24% of total EU export, Ireland

(22%), Denmark (12%) and the Netherlands (11%)[10]. The largest market of EU Butter is the USA which imported 20% of total 2017 EU butter exports. Japan on the other hand imported merely 3% of total 2017 exported butter. Japan has never been a major market for EU butter, in fact, before 2003 butter exports were practically negligible[10].

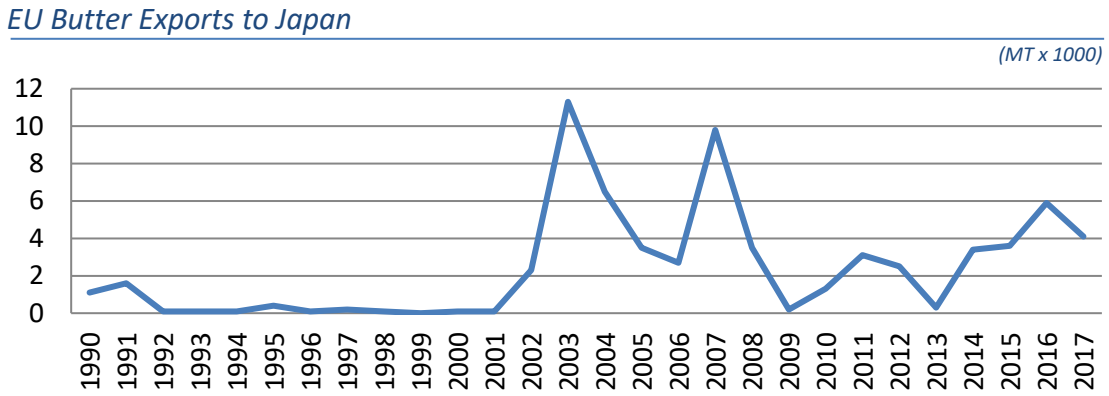


Figure 29: EU butter exports to Japan over time, 1990-2017. Based on data by: EUROSTAT COMEXT (via European Commission)[84]

In 2017, the largest part of the EU originating butter was imported from the Netherlands, accounting for half of the total imports from the EU. Nearly all of the Dutch originating butter was imported through government purchases. The other main EU origin countries for butter were Germany (23%) and France (18%).

EU Butter Export to Japan 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
Netherlands	1.869	¥1.136	¥607,6
Germany	856	¥519	¥605,8
France	665	¥658	¥989,1
Belgium	287	¥156	¥541,6
Denmark	32	¥23	¥711,1
UK	2	¥2	¥816,8
Italy	0,5	¥1,2	¥2.374,5
Ireland	0,3	¥3,3	¥1.235,7
Total EU	3.713	¥2.494	¥671,7*

** Average*

Table 36: EU butter. Based on data by: Japan Customs[91]

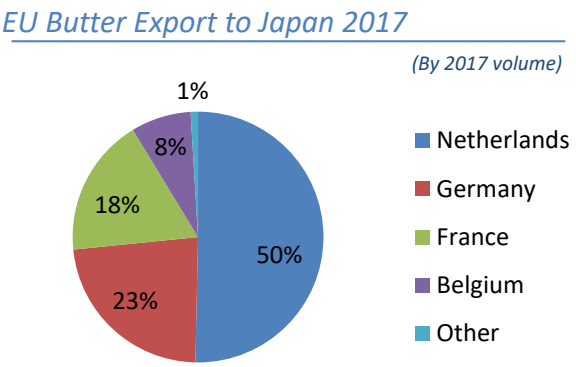


Figure 30: EU butter. Based on data by: Japan Customs[91]

Overall, 92% of EU butter was imported by ALIC. French butter was relatively often imported trough private import, as ALIC imports only accounted for 67% of the country's total volume. Danish butter, while only a small part of EU's total, was solely imported privately, similar to the imports from Italy and Ireland.

EU Butter Export to Japan 2017					
	ALIC		Other		% Other
	Volume in MT	*Value in ¥/kg*	*Volume in MT*	*Value in ¥/kg*	*(volume)*
Netherlands	1.843,9	¥607,9	25,0	¥586,4	1%
France	442,8	¥809,6	222,0	¥1.347,1	33%
Germany	849,0	¥604,5	7,2	¥764,6	1%
Belgium	262,1	¥541,7	25,2	¥540,8	9%
Denmark			32,2	¥711,1	100%
Other			3,2	¥1 101,9	100%
Total	3.397,7	¥628,2*	314,8	¥1.141,2*	8%

** Average*

Table 37: EU butter exported to Japan 2017. Based on data by: MAFF (via ALIC)[72]

4.4.4 EU Butter Imports Covered by the EPA

Just as with cheese, the EU a strong position in the Japanese market for butter imports. However unlike cheese, the majority of EU butter (92% of the 2017 total) is imported by ALIC, which is not covered by the EPA. This means that for these imports (0405.10.110/0405.20.210), same as with the imports within *"the Pooled Quota"* (0405.10.121/0405.20.221) the tariff rates will remain unchanged[XII].

Under the EPA, butter exports to Japan originating from the EU will benefit from another exclusive tariff rate quota (**TRQ-23**), which is shared with other dairy imports such as SMP. The in-quota rates for these tariff lines (0405.10.129/0405.20.229) won't be eliminated but will be reduced over a ten year period, starting from the first year the EPA takes action. However, the way custom duties are reduced compared to what was the situation previous to the EPA is slightly more complex than is the case with some other imports (see chapter 3).

Therefore, the degree to which EU exporter will benefit of the EPA is largely dependent on quantity and price at the moment of sale.

EU Butter Exports

(based on 2017 volume)

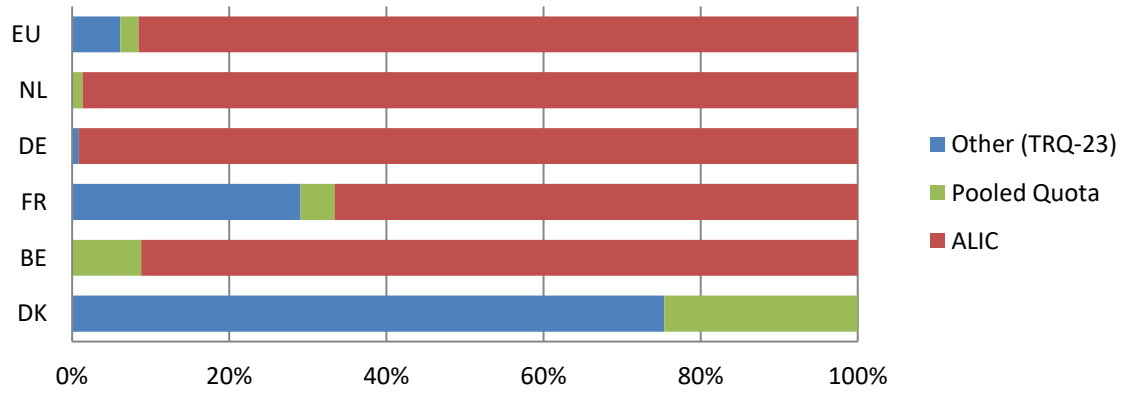


Figure 31: Composition of EU butter export to Japan per tariff line, as covered by the EPA. Based on data by: Japan Customs[91]

[XII] WTO tariff rate: 35%[62]

The EU butter exports accounted for 46% of total ALIC butter purchases in 2017, and 37% of the total quantity imported within "the Pooled Quota". However, of the imports under tariff lines other than for ALIC or "the Pooled Quota" (i.e., the ones that will fall within **TRQ-23** under the EPA), the 2017 EU exports accounted for 94% of the total.

Figure 31 above shows the imports of the top five largest EU butter exporters to Japan and the share of imports that are either, ALIC purchases, imports under "the Pooled Quota", or other tariff lines that will fall under **TRQ-23** after the EPA takes action.

With the exception of Denmark, ALIC purchases composed the majority of 2017 butter exports from the EU. However 29% of the French butter was also imported privately outside of "the Pooled Quota".

The content of this subchapter alone should be in no way interpreted as a prediction on the impact of the EPA on EU exports. However, depending on the situation, the option of the new EU excusive tariff rate quota could offer benefits for some EU exporters.

4.5 SMP

Unlike with butter or cheese, skimmed milk powder is rarely used for direct (human) consumption; instead, it is predominantly used for industrial purposes like the production of food items such as dairy products, pastries or confectionary. However, a large part of SMP is used for the production of cattle feed as well. The ratio of domestic consumption and production in most recent years has been relatively stable. In both 2016 and 2017, about three quarters of the consumed SMP supply was produced domestically.

SMP Production and Consumption

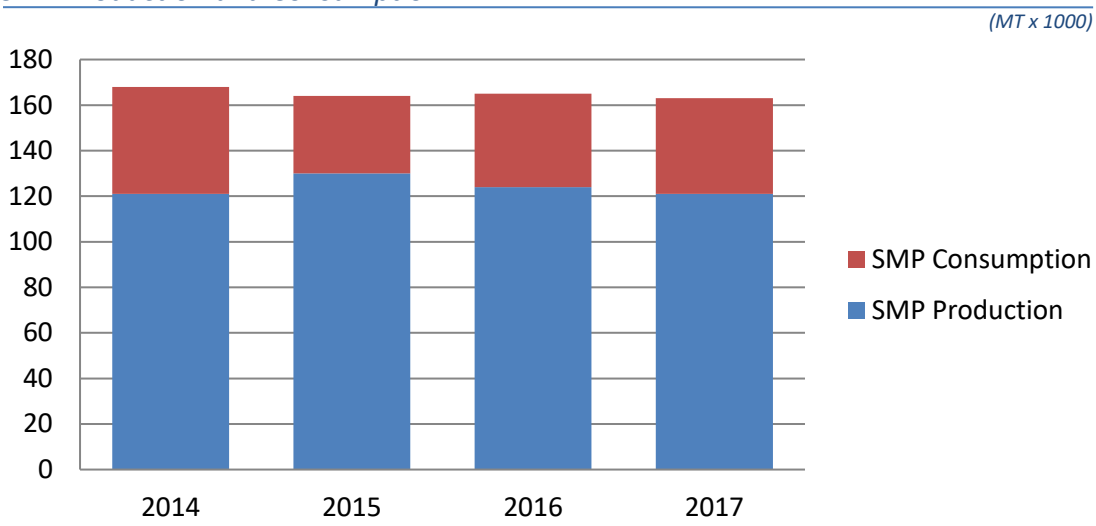


Figure 32: SMP production & consumption. Based on data by: USDA GAIN[77, 78], MAFF (via Lacto Japan)[83]

4.5.1 Consumption & Production

The total 2017 consumption of 163 thousand tons is 3% lower than it was three years earlier in 2014. Although not dramatic, this could be an indication of a downwards trend on the long term.

Annual SMP Consumption				
	2014	*2015*	*2016*	*2017*
Total (MT x 1000)	168	164	165	163
Per Capita (kg)	1,31	1,28	1,29	1,28

Table 38: SMP consumption in Japan, 2014-2017. Based on data by: USDA GAIN[77, 78], MAFF (via Lacto Japan)[83], Clal.it[82]

When looking at the domestic SMP production over a longer period, we see a significant decline in volume. In 2016 Japan produced 123.5 thousand tons of SMP, which is 70% of the 177 thousand tons a decade earlier in 2006, and 62% of the 200.4 thousand tons in 1996[72]. As domestic production declined faster than domestic demand, SMP wholesale prices have increased significantly over the past ten years. The wholesale price of ¥701.5 per kg is a 35% increase over the ¥ 520.7 in 2006[72].

SMP Wholesale Price & Production Volume

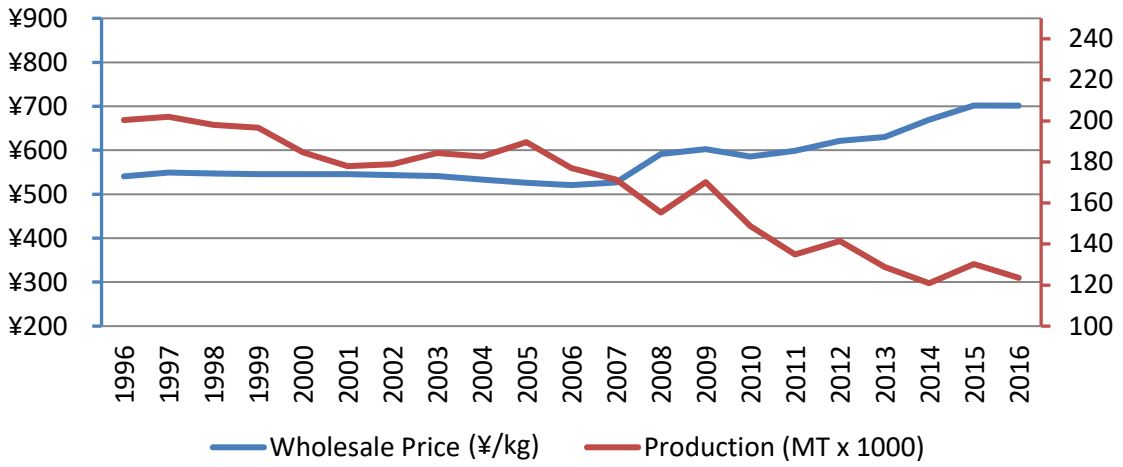


Figure 33: SMP Wholesale price & production volume over time, 1996-2016. Based on data by: MAFF (via ALIC)[72]

Almost half of the domestically produced SMP is used for the production of yoghurt and pro-biotic drinks, another 17,3% is used for making milk beverages[90]. For the imported SMP on the other hand, the production of milk beverages is the main use, accounting for 40,7% of total imported volume. Other main applications for imported SMP are the production of yoghurt and pro-biotic drinks (31,7%), as well as ice cream (16,1%)[90]. The applications where the percentage of imported SMP used are highest are the production of milk beverages (34,3%), milk formula (33,3%), processed milk (26,3%) and ice cream (24,8%)[90]. While milk formula production only makes up for a small portion of all consumed SMP, the demand for import in this sector seems to be relatively high.

Utilisation SMP for Food Production				
Application	*Total Used SMP*		*Imported volume*	
	Volume in MT	*% of total*	*Volume in MT*	*% per app.**
Processed Milk	1.900	1,4%	500	26,3%
Milk beverage	23.600	17,3%	8.100	34,3%
Yoghurt and pro-biotic drinks	66.100	48,5%	6.300	9,5%
Ice cream	12.900	9,5%	3.200	24,8%
Beverages	3.600	2,6%	500	13,9%
Margarine	900	0,7%	100	11,1%
Processed food	5.300	3,9%		
Bakery	4.700	3,5%	600	12,8%
Confectionery / Deserts	6.500	4,8%	100	1,5%
Milk formula	300	0,2%	100	33,3%
Other dairy as food ingredient **	4.500	3,3%	300	6,7%
Food Service / Hotel industry	200	0,1%		
Restaurants	4.800	3,5%	100	2,1%
Other	900	0,7%		
Total	136.200	100,0%	19.900	14,6%

** The percentage of imported SMP used for each individual application.*
*** A commonly used description on the ingredients list of food items in Japan "乳等主要原料食品", used for a wide variety of (processed) food items containing dairy that does not fit the description of dairy products as recognised by the Japanese Ministry of Health, Labour and Welfare[92].*

Table 39: Utilisation of SMP per application, 2015. Based on data by: ALIC[90]

4.5.2 Imports

SMP imports in 2017 reached a record volume of 58.5 thousand tons, 173% of the previous year. There are some side notes to these numbers however. The total volume is largely determined by ALIC imports (e.g., 43% of 2017 volume), which are not necessarily an accurate representation of market demands. The impressive 73% increase can be solely attributed to the fact that ALIC imports in 2016 were significantly lower than either 2017 or 2015. When adjusted, the 2017 import volume (sans ALIC imports) increased 11% over 2016 and 14% over 2015[91] (see Appendix B). Another point of attention is the import value. While volume has steadily increased, value has made a significant drop after 2014. Even when adjusted for ALIC imports, 2016 import value was a record low, and while the numbers in 2017 did show improvement, total value (as well as value per kg.) was still lower than those from 2013-2016[91] (see Appendix C).

SMP Import by Category 2017							
HS Code	*Volume*			*Value*			
	MT x 1000	*% of total*	*YOY*	*¥ x million*	*% of total*	*YOY*	*¥/kg*
For "the Pooled Quota of skimmed milk powder other than for school lunch etc."							
0402.10.216	27,6	47%	104%	¥6.169,4	42%	131%	¥223,2
0402.10.222	0,3	1%	82%	¥98,6	1%	98%	¥285,8
For "the Pooled Quota of skimmed milk powder for school lunch etc."							
0402.10.211	1,7	3%	96%	¥774,3	5%	108%	¥459,4
For ALIC							
0402.10.221	25,4	43%	626%	¥6.433,6	44%	765%	¥253,6
Other SMP							
0402.10.217	0,01	0%	214%	¥83,0	1%	225%	¥7.468,5
0402.10.229	3,5	6%	361%	¥1.112,9	8%	354%	¥318,8
Total	58,5		173%	¥14.671,7		218%	

Table 40: SMP imports by category, 2017. Based on data by: Japan Customs[91]

Most of the SMP import comes from New Zealand. In 2017 New Zealand imports accounted for 42% of the total volume and value. The USA is Japan's second largest source, accounting for 18% of 2017 imports. The value by weight is distributed relatively even among the different countries of origin.

SMP Import by Origin 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
New Zealand	24.558	¥6.224	¥253,4
USA	10.561	¥2.516	¥238,2
Australia	9.598	¥2.375	¥247,4
Turkey	2.206	¥492	¥222,8
EU	9.893	¥2.572	¥260,0
Other	1.726	¥493	¥285,9*
Total	58.542	¥14.672	¥260,0*

** Average*

Table 41: SMP import. Based on data by: Japan Customs[91]

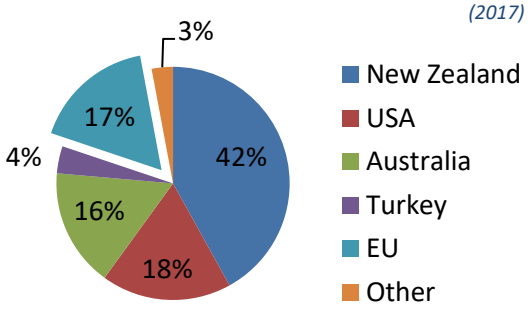


Figure 34: SMP import. Based on data by: Japan Customs[91]

4.5.3 Imports from EU

The EU exported 779 thousand tons of skimmed milk powder in 2017, a 36% increase over the previous year. Algeria was the EU's largest market for SMP, importing 132,5 thousand tons (or 17%), while Japan was good for 1,6% of total volume[10]. EU SMP exports to Japan have been rather low in the first decade of the 21st century, but volumes increased incrementally from 2010 and on. As with the overall imports, the import volume from the EU is heavily affected by ALIC purchases. For example, 76% of 2017 EU volume was ALIC imports. Another large quantity (20%) was SMP meant for cattle feed, imported within the pooled quota[91].

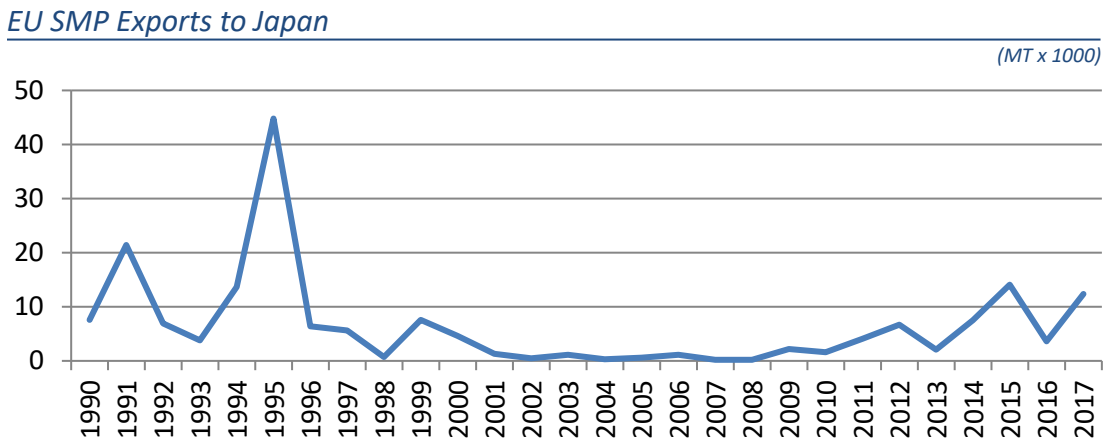


Figure 35: EU butter exports to Japan over time, 1990-2017. Based on data by: EUROSTAT COMEXT (via European Commission)[84]

The majority of the 2017 EU originating imports came from Belgium, which exported 5,5 thousand tons of SMP to Japan (56% of EU total). Other major exporters (by volume) were Germany, France and Poland, together good for one quarter of EU volume. In terms of value differences are relatively small, with the exception of France of which exports had an average value of 385,2 *¥/kg, compared to the 260¥/kg EU average.*

EU SMP Export to Japan 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
Belgium	5.532	¥1.322	¥239,0
France	1.018	¥392	¥385,2
Germany	822	¥226	¥274,4
Poland	858	¥217	¥252,8
Lithuania	829	¥199	¥239,7
Finland	407	¥105	¥258,5
Netherlands	354	¥93	¥261,8
Portugal	50	¥13	¥261,3
Ireland	23	¥6	¥260,5
Total	9.893	¥2.572	¥260.0*

* Average

Table 42: EU butter. Based on data by: Japan Customs[91]

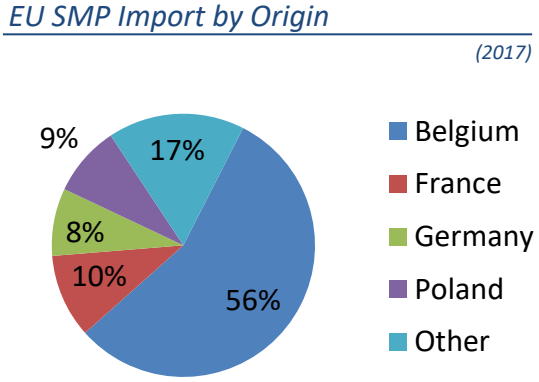


Figure 36: EU SMP. Based on data by: Japan Customs[91]

4.5.4 EU SMP Imports Covered by the EPA

The situation with SMP is comparable to the one of butter, as the majority of foreign imports are regulated through ALIC purchases. This makes it more difficult to get reliable insight in, e.g., demand. As was the case with butter imports, the tariff lines that account for ALIC purchases

are excluded from the EPA and tariff duties will therefore not be affected. Under the EPA, SMP exports will benefit from the new and exclusive tariff rate quota (**TRQ-23**). The degree of these benefits however, will be largely dependent on quantity and price at the time. Also, because of the complexity, the 2017 import composition among tariff lines will not give a reliable indication of the situation after the EPA has taken action, but merely serve as an illustration of the situation in 2017.

Just over three quarters (76%) of EU SMP exports to Japan are through ALIC purchases. For the largest origin country for EU originating butter, Belgium, ALIC purchases accounted for 97% of the total volume[91]. For Poland and Lithuania, all 2017 SMP was exported within "the Pooled Quota" for SMP other than for school lunches.

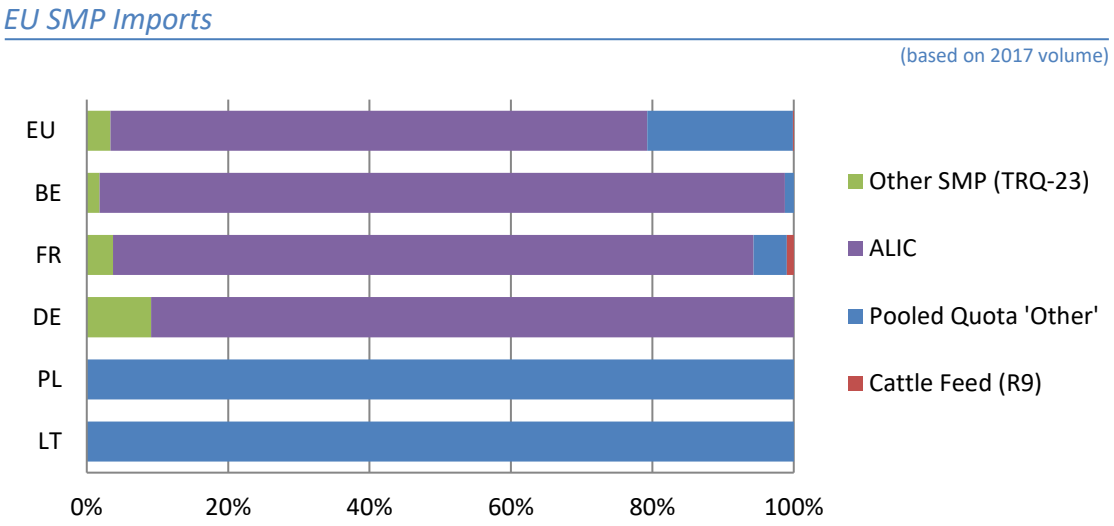


Figure 37: Composition of EU SMP export to Japan per tariff line, as covered by the EPA. Based on data by: Japan Customs[91]

4.6 Whey

Unlike the case with butter or cheese, whey is mainly destined for industrial purposes. A large part is used for the production of cattle feed, but it is also a very common ingredient for baby formula. Other uses of whey vary from food items such as confectionary and bakery products, processed meat products, and dairy products like yoghurt, ice cream and processed cheeses[93]. Whey is another market where Japan mainly has to rely on foreign supply. The domestic production of whey is rather low as it is a by-product of cheese production, of which there is very little in Japan. According to estimations, Japan produces just below 20 tons of whey annually. This means that, in case of 2017, imports accounted for 70% of the total whey supply. Similar to butter, part of the import is regulated by ALIC in order to guarantee and stabilize supplies. However unlike butter, the majority is importer through private channels.

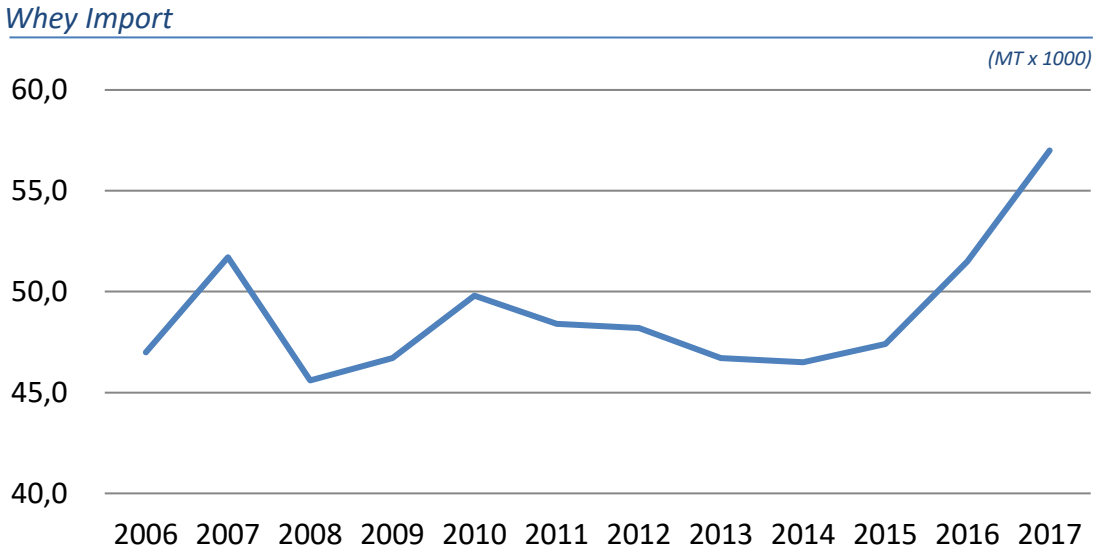


Figure 38: Japanese whey imports over time, 2006-2017. Based on data by: Japan Customs[91]

4.6.1 Imports

Overall imports of whey have experienced a notable upward trend in recent years, reaching a record volume of 57 thousand tons in 2017, an 11% increase over the 51,5 thousand tons in 2016. The majority of foreign whey (64%) is imported within the pooled quota for cattle feed, with an average value of ¥146,1/kg (€1,15)[XIII]. Whey imported within the pooled quota for baby formula makes up for 6% of total volume, and 12% of total value. With an average value of ¥421,7/kg (€3,33)[XIII], whey for the pooled quota of baby formula has a relatively high value. Whey within the pooled quota for mineral concentrated whey takes an 18% share in volume and 26% in value.

[XIII] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

Whey Import by Category 2017							
HS Code	*Volume*			*Value*			
	MT x 1000	*% of total*	*YOY*	*¥ x million*	*% of total*	*YOY*	*¥/kg*
For "the Pooled Quota of whey etc. used for prepared milk powder for babies and infants"							
0404.10.142	3.146,1	6%	105%	1.326,7	12%	107%	421,7
0406.10.182	31	0%	93%	28,1	0%	76%	906,5
For "the Pooled Quota of whey etc. for feeding purposes"							
0404.10.141	36.308,6	64%	113%	5.304,1	48%	190%	146,1
0404.10.181	483,5	1%	26%	93,8	1%	36%	194,0
For "the Pooled Quota of mineral concentrated whey"							
0406.10.122	10.160,8	18%	108%	2.794,1	26%	121%	275,0
For ALIC							
0404.10.119	5.906,6	10%	139%	1.030,4	9%	170%	174,4
"Other whey"							
0404.10.129	387	1%	245%	87,2	1%	203%	225,3
0404.10.149	591,4	1%	92%	286,6	3%	*123%*	484,6
0404.10.179	2,4	0%	-	2,4	0%	-	-
0404.10.189	3,9	0%	224%	3,5	0%	84%	897,4
Total	57.021,0		111%	10.956,8		146%	

Table 43: Whey imports by category, 2017. Based on data by: Japan Customs[91]

The majority of whey import originates from the United States, supplying 31% of total volume imported in 2017. The EU, good for 26%, is Japan's second largest source of whey by volume. In terms of value, the EU takes the largest share with a total import value of ¥3,3 billion (€26 million)[XIV], compared to ¥2,7 billion (€21,3 million)[XIV] of the US. The Whey imports from the US have the lowest average value per kg of all the major import origins (¥153,7), while New Zealand has the highest average value per kg (¥261,7).

Whey Import by Origin 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
USA	17.657	¥2.714	¥153,7
Australia	9.069	¥2.012	¥221,9
New Zealand	4.620	¥1.209	¥261,7
Argentina	1.049	¥202	¥192,7
EU	14.863	¥3.341	¥224,8
Other	9.764	¥1.352	¥138,5*
Total	57.021	¥10.829	¥189,9*

** Average*

Table 44: Whey import. Based on data by: Japan Customs[91]

Whey Import by Origin

(2017)

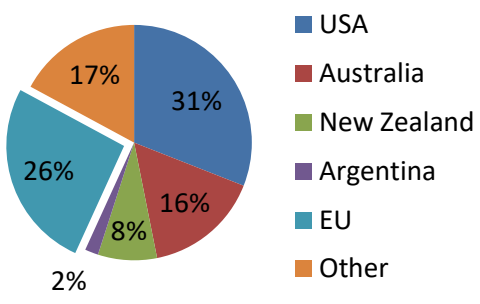


Figure 39: Whey import. Based on data by: Japan Customs[91]

The majority of whey (about 65%) is imported within the pooled quota for whey meant the production of cattle feed. About 6% of total import volume is imported within the quota for

[XIV] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

whey for the production of baby formula. While low in volume, whey imported within the quota for baby formula has a significant higher value per kg (¥421,7/€3,33[XV]) than whey for cattle feed (¥146,1/€1,15[XV]). It should be noted that whey imported outside either of the mentioned quotas (or by ALIC) will not benefit from lower tariff rates, but could still have been used for either purpose (feed or baby formula) as well as other applications.

4.6.2 Imports from EU

In 2017 the EU exported 564 thousand tons of whey powder, a modest 2,2% increase compared to 2016. The largest destination of EU whey was China, importing 166,2 thousand tons (30% of total). In comparison, the 14,9 thousand tons exported to Japan is 2.6% of EU's total[10]. The EU whey export to Japan has been relatively consistent during the last decade (with some exceptions), fluctuating in volume between 10 and 15 thousand tons. What is notably different from EU compared to other exporting countries is the fact that most of the EU whey is imported by ALIC. In 2017 in fact, 70% of total ALIC whey imports originated from the EU[91]. ALIC imports made up for 28% of total 2017 EU whey exports to Japan, 24% is imported within the quota for cattle feed, and 25% is imported within the pooled quota or mineral concentrated whey not containing added sugar.

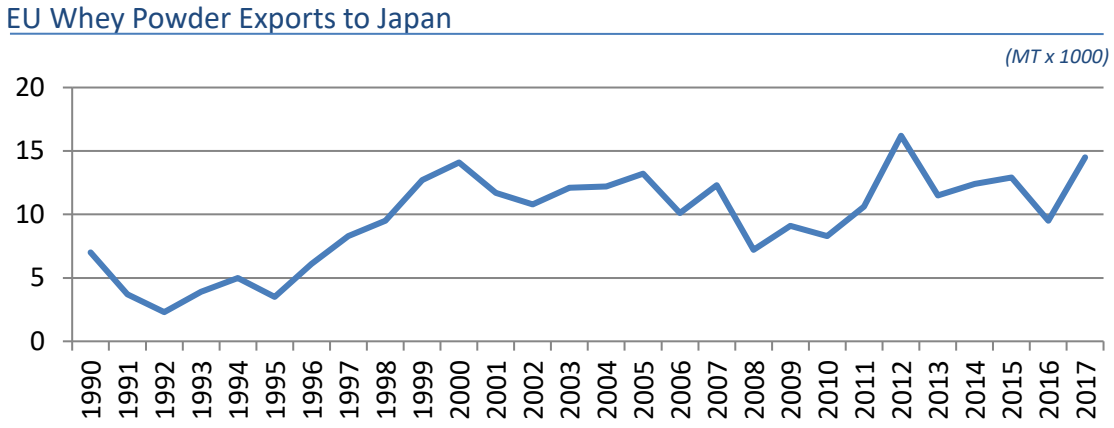


Figure 40: EU whey exports to Japan over time, 1990-2017. Based on data by: EUROSTAT COMEXT (via European Commission)[84]

In 2017, the majority of the in European whey was imported from Germany (32%), followed by France (19%) and the Netherlands (15%). Imports from the Netherlands had the highest value in total as well as the highest value per kg. This difference is quite significant as the value of ¥443,2 (€3,50)[XV] per kg is almost double that of the EU average, ¥224,8/kg (€1,77)[XV].

[XV] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

Whey Export to Japan, EU 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
Germany	4.758	¥970	¥203,8
France	2.736	¥543	¥198,4
Netherlands	2.238	¥992	¥443,2
Finland	1.345	¥221	¥164,0
Poland	1.232	¥150	¥122,0
Portugal	1.175	¥136	¥115,9
Other	1.379	¥330	¥239,0*
Total	14.863	¥3.341	¥224,8*

** Average*

Table 45: EU whey. Based on data by: Japan Customs[91]

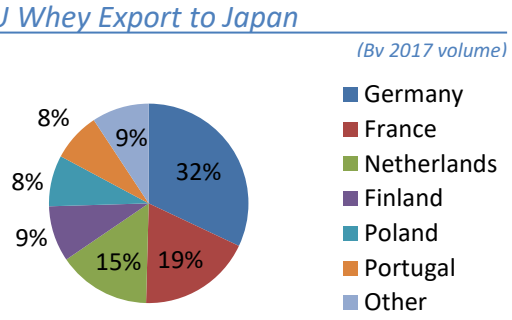


Figure 41: EU whey. Based on data by: Japan Customs[91]

4.6.3 EU Whey Imports Covered by the EPA

While the 2017 whey imports from the EU mainly consist of ALIC purchases and imports within quotas that are not included in the EPA, the situation is different than with the commodities covered previously, like butter or SMP.

The EPA includes many varieties of whey (as was covered in chapter 3) of which either the custom duties will be gradually eliminated after the EPA taking action or, for the very least, significantly reduced. For example, whey that qualifies for import within the exclusive new tariff rate quota, **TRQ-22**, will have the in-quota custom duties reduced to 0% over the first five years after the EPA takes action. The same goes for "Other" whey with a milk protein content of less than 45%.

Depending on future demands, this means that many of the imports that are now imported by either ALIC of within one of the existing quotas, no longer will be after the EPA takes action. Some imports may benefit from the exclusive quota for the EU with the eliminated custom duties. Others might no longer be restricted by a quota while benefiting from a reduced, or eliminated, custom rate.

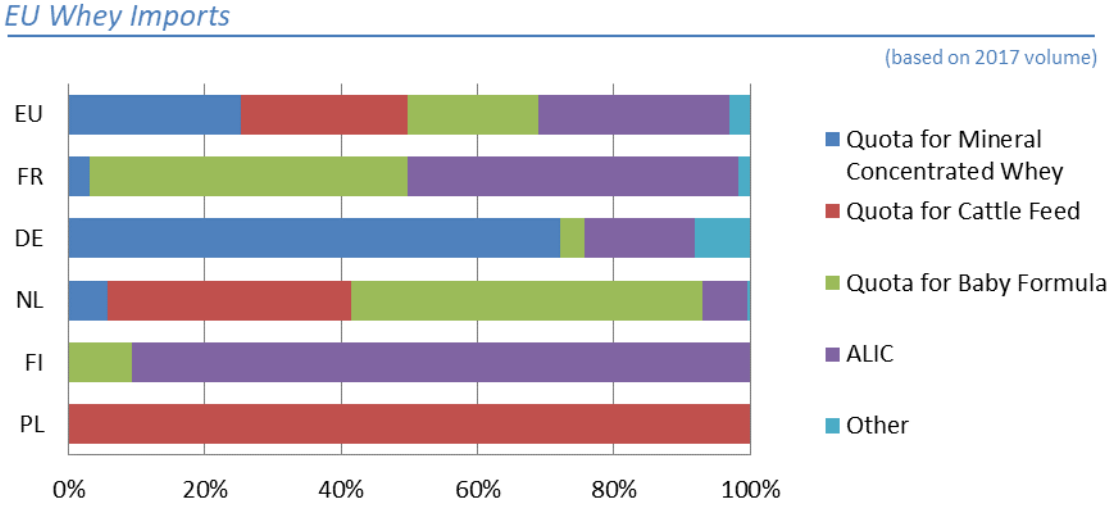


Figure 42: Composition of EU whey export to Japan per tariff line, as covered by the EPA. Based on data by: Japan Customs[91]

Of the in 2017 whey imports from the EU, 25% was imported within "the Pooled Quota for Mineral Concentrated Whey". Mineral concentrated whey however, can also be imported under tariff line *0404.10.169*, which is, in fact, included in the EPA. Another 19% was imported within the quota of whey to be used for the manufacture of baby formula. While the in-quota rate is relatively low under current WTO conditions, some EU exports might benefit when certain custom duties are eliminated completely in the years after the EPA takes action. This could, e.g., benefit France and the Netherlands which, in 2017, exported 47% and 52% of whey respectively, within the quota for baby formula.

4.7 Lactose

Lactose, similarly to whey, is another by-product of the dairy industry with most applications in industrial use. Lactose is used in the production of a variety of food items such as baby formula, confectionary and pastries. It is also used for food fermentation and in the pharmaceutical industry for the production of tablets[94, 95].

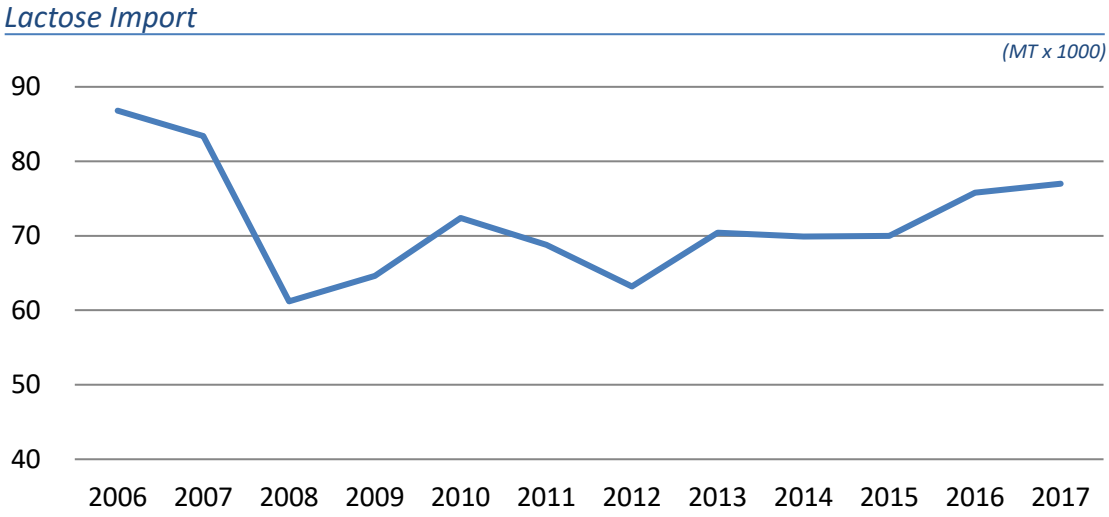


Figure 43: Japanese lactose imports over time, 2006-2017. Based on data by: Japan Customs[91]

4.7.1 Utilisation

Of the imported lactose, an estimated 75% is used for the production of food items. In particular the production of baby formula and confectionary, which each consume 27% of total lactose. Other common food items that require lactose for production are creaming powder (7%) and seasoning/soups (7%). Besides food items, the main uses for lactose are the pharmaceutical industry, consuming 20% of the total, and the production of cattle feed which uses 5%.

Utilisation of Lactose	
Application	*MT*
Food	56.000
Infant formula	*20.000*
Confectionery	*20.000*
Seasoning & Soups	*5.000*
Creaming Powder	*5.000*
For Fermentation	*4.000*
Ham & Sausage	*1.000*
Other Food	*1.000*
Pharmaceutical	15.000
Cattle Feed	4.000
Total	75.000

Table 46: Utilisation of lactose. Source: Lactose Japan[96]

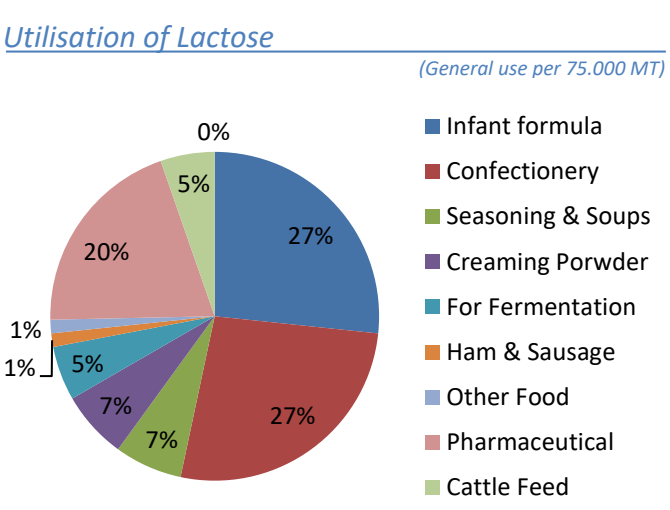


Figure 44: Utilisation of lactose. Source: Lactose Japan[96]

4.7.2 Imports

Lactose imports reached 77 thousand tons in 2017. Although this was a modest 1.6% increase over 2016, it was, in fact, the highest volume since 2008. While import volume showed incremental but steady growth the five years up to 2017, import value numbers seem to be much more susceptible to fluctuation (see Appendix D). Most of the imported lactose (98%) comes in dry form, which subsequently, is the sub-category that was responsible for the commodity's growth.

Lactose Import by Category 2017							
HS Code	*Volume*			*Value*			
	MT x 1000	*% of total*	*YOY*	*¥ x million*	*% of total*	*YOY*	*¥/kg*
"Lactose and lactose syrup"							
1702.11.000	75,6	98%	102%	11.355,3	99%	134%	150,2
1702.19.000	1,4	2%	75%	159,4	1%	87%	110,6
Total	77		102%	11.514,7		133%	
(Average range of value, measured from 2006 – 2017 = 121%)							

Table 47: Lactose imports by category, 2017. Based on data by: Japan Customs[91]

More than half of the imported lactose (56%) originated from the USA. In comparison, European imports composed 35% of imported volume. However, this is still a relatively large share compared to the 2017 imports originating from New Zealand and Canada, which account for a mere 4% each.

Lactose Import by Origin 2017			
	MT	¥ Mln.	*¥/kg*
USA	43.055	¥5.181	¥120,3
EU	26.671	¥5.309	¥199,0
New Zealand	3.431	¥551	¥160,6
Canada	2.836	¥360	¥126,9
Turkey	640	¥65	¥101,3
Israel	388	¥43	¥109,7
Switzerland	0,1	¥7	-
Total	77.021	¥11.515	¥149.5*

* Average

Table 48: Lactose import. Based on data by: Japan Customs[91]

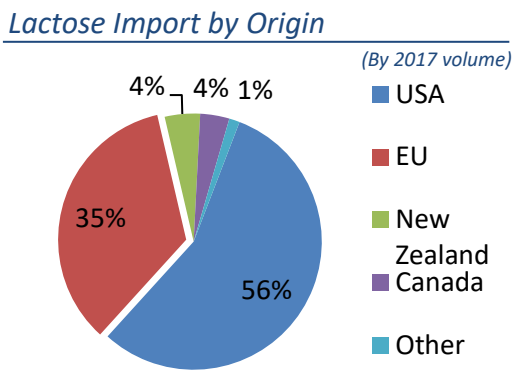


Figure 45: Lactose import. Based on data by: Japan Customs[91]

4.7.3 Imports from EU

Over the past decade there has been little growth in lactose export from the EU to Japan, however more recently in 2017, imports from the EU did show a notable 23% increase in volume, and 34% in value over 2016[91]. Of the 26,7 thousand tons of lactose that was imported from the EU in 2017, 95% consisted of anhydrous lactose.

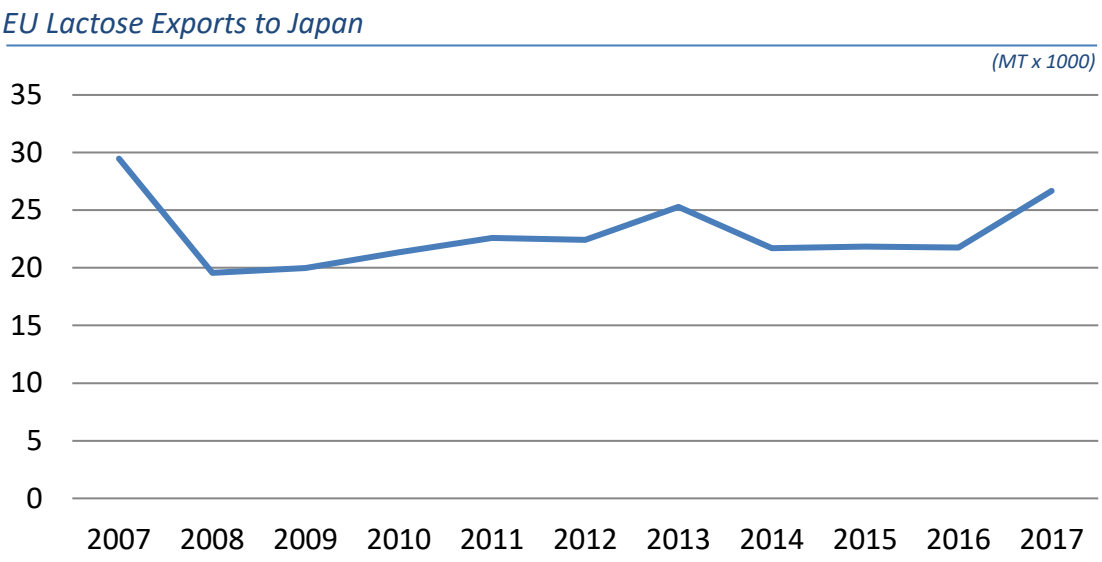


Figure 46: EU lactose exports to Japan over time. Based on data by: EUROSTAT COMEXT (via European Commission)[84]

By far the largest part (i.e., 16,6 thousand tons or 62% of the EU total) was imported from Germany. However, almost all of the non-anhydrous EU lactose originated from France. Standing out from this data is import from Netherlands, Japan's second largest source of lactose, due to a much higher value per kg than the EU average.

Lactose Export to Japan, EU 2017			
Origin	*MT*	*¥ Mln.*	*¥/kg*
Germany	16.555	¥2.869	¥173,3
Netherlands	7.601	¥2.166	¥285,0
France	1.563	¥160	¥102,5
Austria	350	¥43	¥123,9
Italy	192	¥20	¥103,0
UK	180	¥27	¥148,3
Denmark	84	¥9	¥107,1
Ireland	80	¥8	¥103,5
Poland	66	¥7	¥101,3
Total	25.324	¥5.169	¥179,9*

** Average*

Table 49: EU lactose. Based on data by: Japan Customs[91]

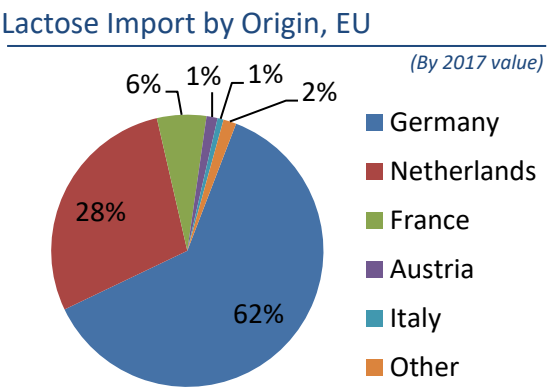


Figure 47: EU lactose. Based on data by: Japan Customs[91]

4.7.4 EU Lactose Imports Covered by the EPA

Lactose imports and exports are not covered by the agreement. The situation after the agreement taking action will be the same as before since the custom duties for this commodity are already 0%. The EPA is therefore not likely to have a significant effect on the EU export of Lactose to Japan.

5. Market Insights

Apart from the political and legal aspects foreigners encounter when exporting to Japan, there are certain cultural aspects that require understanding as well. The following chapter will provide insights in the values and concerns of the Japanese consumer and professional buyers, particularly values and concerns that are distinctively Japanese. Second, the chapter will delineate some important aspects of the Japanese food culture and influences of the western (European) diet.

Due to the nature and significance of this chapter, the content will be based on a selection of complimenting qualitative and quantitative sources with detailed background information. This, to give European exporters a proper understanding of the Japanese market and how to adapt to it.

5.1 Consumer Insights

As is the case in most Asian countries, dairy has little to no place in the traditional Japanese diet. Dairy products for daily consumption are relatively new to the Japanese consumer and mainly grew more common due to popularity of the western cuisine. Taking into account its short history, as well as the fact that somewhere between 80-100% of the population (in some form or degree) is lactose intolerant[97], it is understandable that the relationship the Japanese have with dairy is much different to that of the average European. Therefore, it is important to understand the Japanese consumer's attitude towards dairy and the place it has in the modern Japanese lifestyle, from a western perspective.

Photo 3: A cheese café in Yokohama. Source: Hamakore.Yokohama

5.1.1 Consumer Attitude towards Dairy

The Japanese J-Milk, an organisation promoting the use of milk and dairy[98], conducts annual surveys on consumption and attitudes regarding milk and dairy products. Although mainly focused on drinking milk, the results of the two latest survey reports from 2016 and 2017[XVI] give an interesting insight in the use and perception of milk and dairy among the Japanese consumer. The Annual surveys ask respondents, amongst others, about their motives for drinking (or avoid drinking) milk. These results can give an indication of the extend lactose intolerance affects the perception of milk consumption among the Japanese consumer. When comparing the survey results from several years in a row, it can highlight possible changes in the perception of milk and dairy consumption.

At first glance, the fact that only 14,7% of respondents said never to drink milk seems contradictory to the high percentage of lactose intolerance among the Japanese[99]. In fact, the

[XVI] Sample size: 10.500

percentage slightly reduced from 2013, as survey results of that year showed 16,2% of respondents indicating never to drink milk[100]. Not only do the majority of respondents say to drink milk, 30,3% stated to do so on a daily basis[99].

Considering the high lactose content of milk, and the fact milk had no place in the traditional Japanese diet, it leaves to wonder what exactly the motivations are for consuming milk (or dairy in general).

When asking the respondents who regularly drink milk to the reasons why, the J-Milk surveys show a large variety of motives, of which the most predominant were related to health.

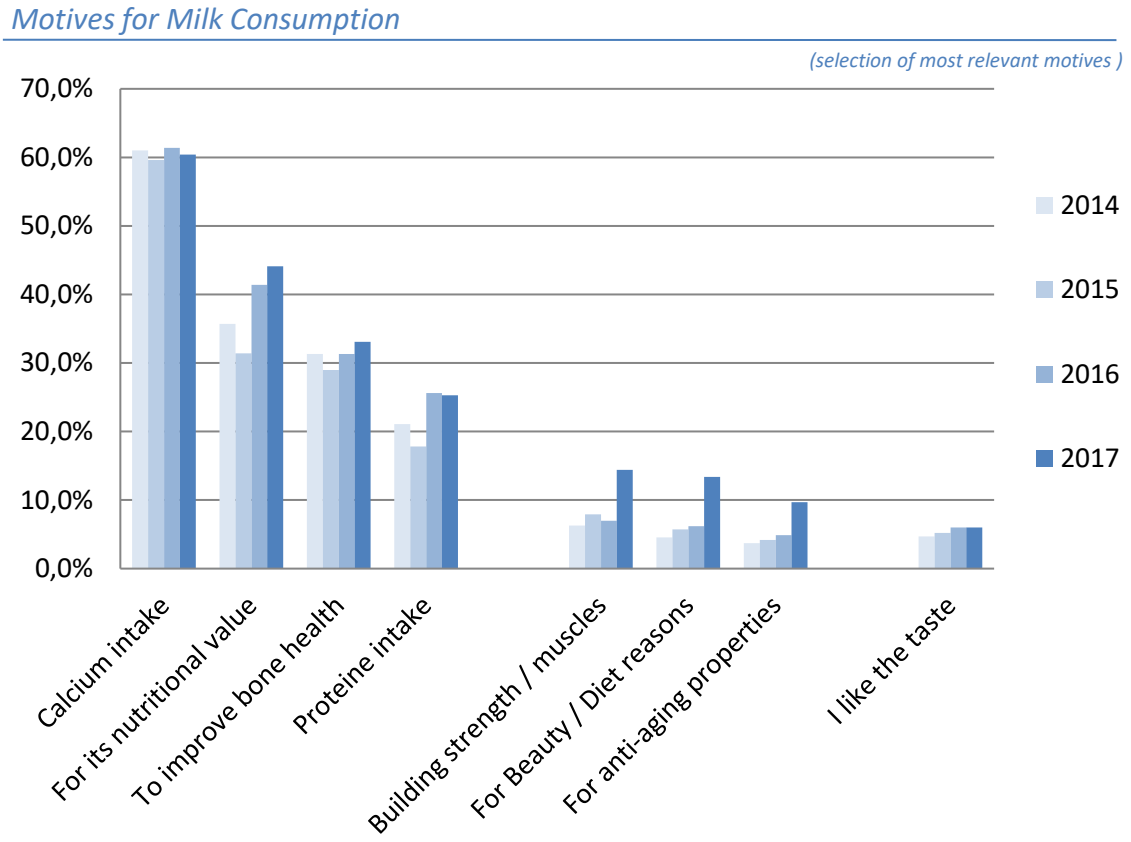


Figure 48: Reasons for Japanese consumers to drink milk (motives). Sources: J-Milk[99, 100]

The survey results show that the majority of people who drink milk (60,4% in 2017) do so for the purpose of *calcium intake*[99, 100]. *Calcium intake* has consistently been given as the main reason for milk consumption for the last four years. The second most often mentioned motive is the overall *nutritional value* of milk (44,1% in 2017)[99, 100]. Interesting about the last mentioned motive is the fact that this reason has gradually been given more often as a reason for consumption, which might indicate a (positive) change in the perception of milk as a healthy product.

Although the main mentioned reasons for drinking milk were for its perceived health benefits, another interesting cluster of motives more closely fits to lifestyle choices. What makes these motives interesting is the drastic increase in mentions from the 2017 survey. The percentage of respondents giving *building strength or muscle* as a reason grew from 7,0% in 2016, to 14,4% in 2017[99, 100]. Similarly, the percentage of respondents giving perceived *beauty or dietary benefits*

as a reason for drinking milk grew from 6,2% in 2016, to 13,4% in 2017, while the perceived *anti-aging benefits* increased from 4,9% to 9,7% respectively[99, 100]. These sudden but drastic changes can indicate a change in attitude towards milk and its perceived benefits and explain why the lactose content does not keep the largely lactose intolerant population from regular consumption.

The survey results also show only a small percentage of respondents mentioning their preference for *the taste of milk* as a reason for consumption (6% in 2016/2017)[99], indicating that milk plays a predominantly utilitarian role in the daily diet instead of a hedonic one.

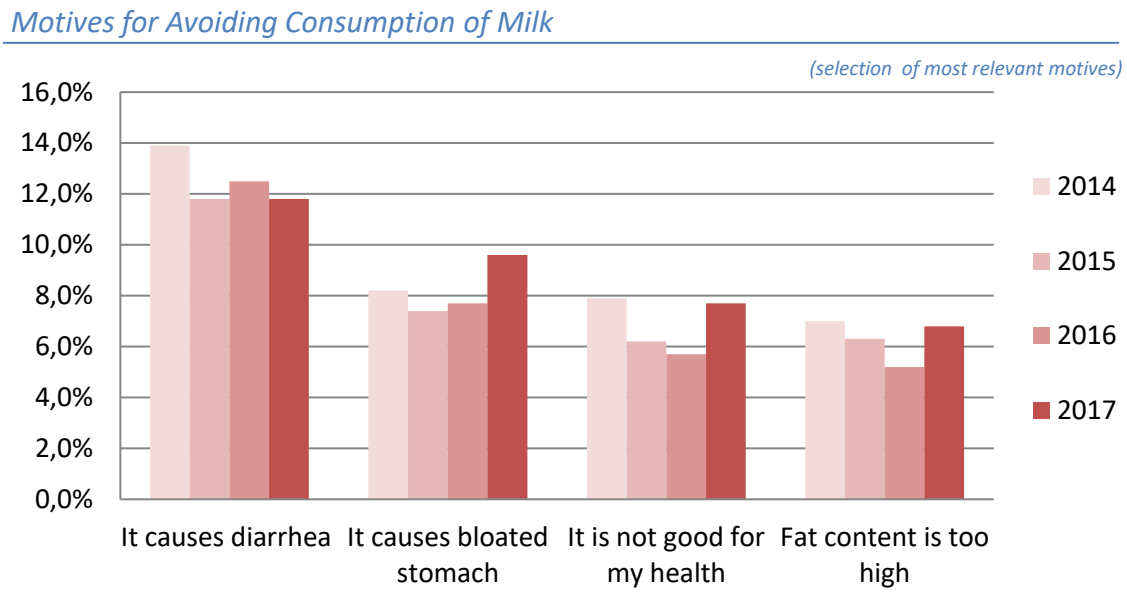


Figure 49: Reasons for Japanese consumers to avoid drinking milk (motives). Sources: J-Milk[99, 100]

As for reasons the respondents gave for not drinking/avoiding milk, most often mentioned, was milk *causing diarrhoea* (11,8% in 2017)[99]. The second most often mentioned reason is milk *causing a bloated stomach* (9,6% in 2017)[99]. Both of these indicate a milk intolerance being a reason for people to avoid milk; however, it seems to be the case for only a small percentage of the participants. Oddly enough, the belief that *milk is bad for one's health* seems to deter merely a few of the respondents from milk, as only 7,7% of the 2017 participants gave this as a reason for not drinking, or avoiding, milk[99]. This could indicate a lack of awareness among the Japanese consumer of lactose intolerance and its symptoms.

In fact, 70% of the 2017 respondents said to believe milk is an important part of the daily diet[99]. The perceived importance among the respondents increased with age, as the percentage of respondents in 2017 sharing this believe was 77,2% of men, and 79,2% of woman 65 to 79 years of age. This could explain some of the mentioned motives for milk consumption such as calcium intake and bone health.

Although these survey results mainly show the perception of milk as a healthy food source, this does not mean dairy has a bad reputation among younger Japanese consumers. An older report on the results of a survey from 2010[101], regarding the eating habits of young Japanese in the age

group 18 to 25 years old, shows the perception of some common dairy products[XVII]. The report mentions that 73% of the respondents liked cheese, opposed to 6% that did not. Of the same respondents, 58,7% said to perceive cheese as a healthy food, opposed to 13,2% that did not. The percentage of respondents having a positive attitude towards both the taste of cheese as well as the perceived healthiness of cheese was slightly higher among women[101]. Another survey from 2016 shows similar results. This survey, conducted by MyEl, shows that 88,5% of the respondents[XVIII] liked cheese, opposed to 6,7% who did not[102]. Similar to the previous survey, this one also showed a more positive attitude towards the taste of cheese among women than among men. Overall, the results of these surveys suggest a positive attitude towards cheese among Japanese consumers.

Consumer Attitude Towards Cheese

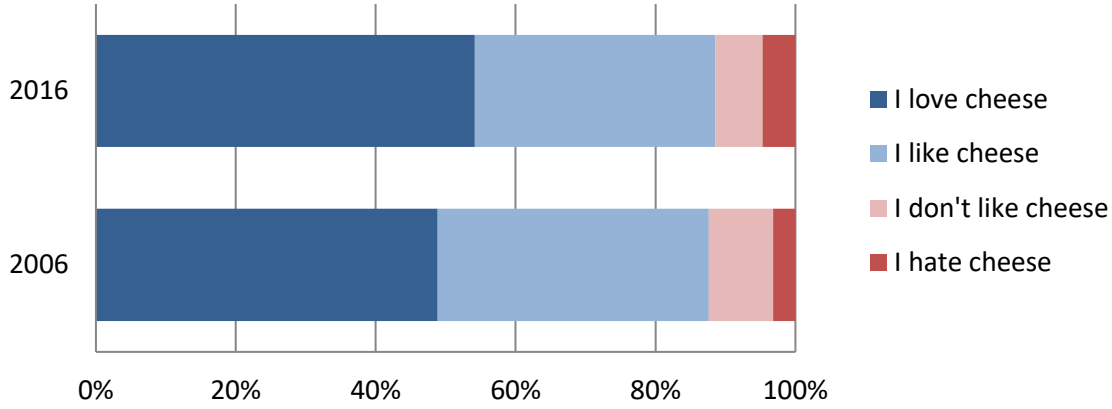


Figure 50: Japanese consumer attitude towards cheese, 2006/2016. Source: MyEI[102]

In the case of yoghurt, the results showed an even more pronounced positive overall attitude. 80,2% of respondents indicated to like yoghurt, while 3% did not. As for the perceived health benefits, 82,7% of respondents said to consider yoghurt being healthy, while 4,2% did not[102]. Again, women were slightly more positive regarding the taste and perceived health benefits of yoghurt than the male respondents.

[XVII] Sample size: 5.294
[XVIII] Sample size: 11.029

5.1.2 Consumer Values & Priorities

Consumer values and priorities are very cultural dependent. For better understanding of the Japanese consumer and their values, it helps to know the way they prioritise different product attributes in order to make a purchase discussion.

The Japan Finance Corporation (JFC), holds biannual surveys on, amongst others, consumer trends. A survey report from 2017[103] shows the priorities of the Japanese consumer when buying food items. The results are compared over three years, from 2015 to 2017, giving a great insight in the general priorities as well as changes over time[XIX].

The report shows that for the majority of respondents, *health or healthiness* was the main concern when purchasing food items as 44,1% of the 2017 participants mentioned this as a priority[103]. Other most mentioned priorities of the 2017 survey where *price* (35,2%), *convenience* (30,2%) and *safety* (22,0%). Although it should be mentioned that, over the three years covered by the surveys, the demand for *freshness* has been prioritised more often. One could argue however, *freshness* and *safety* to be (at least partially) interchangeable or related (depending on interpretation), just as *healthiness*.

Taking into account the overlap between the categories: *healthiness; safety* and *freshness*, it becomes evident, the extent to which the perceived effect of food items on one's health, is of concern among Japanese consumers.

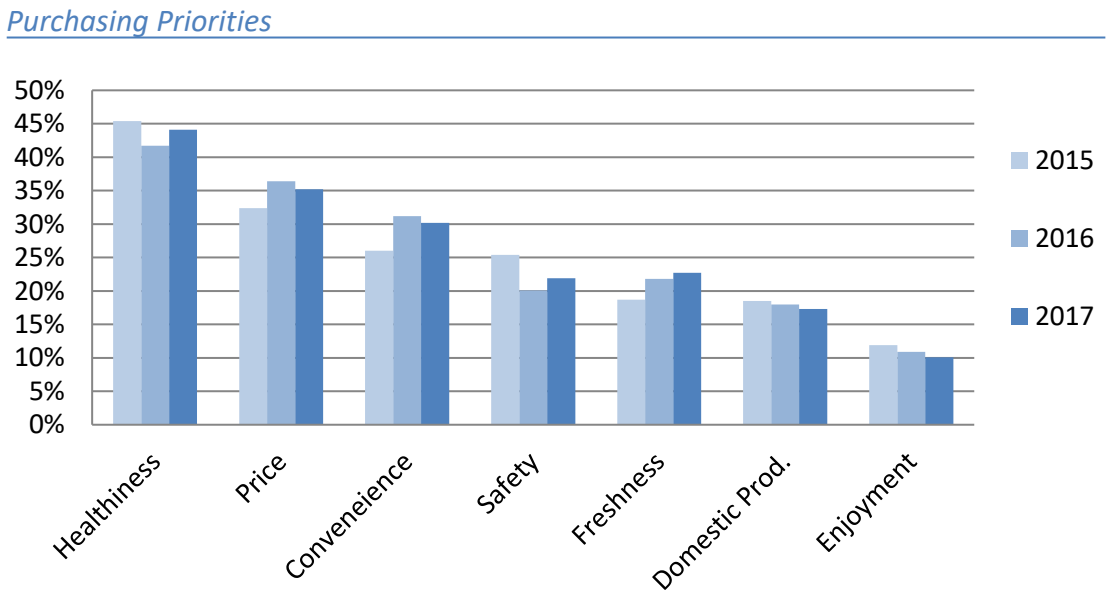


Figure 51: Purchasing priorities when buying food items. Source: JFC[103]

For a more detailed understanding, the report compares the results for the four main priorities between six different age groups. This gives a comprehensive insight in how priorities change with age as well as how these priorities, within age groups, have changed in recent years.

[XIX] Sample size: 1000

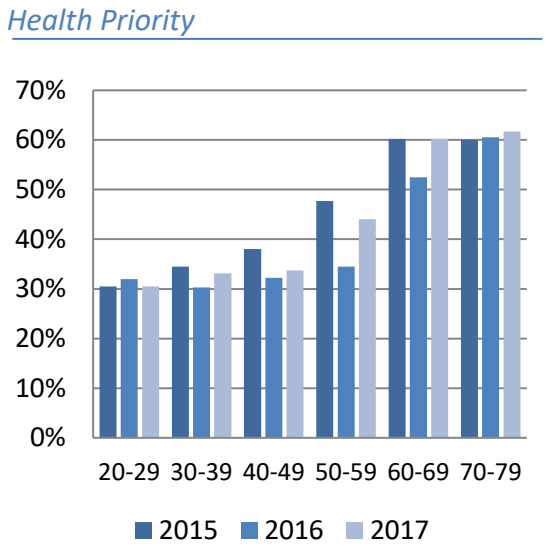


Figure 52: Health priority by age group. Source: JFC[103]

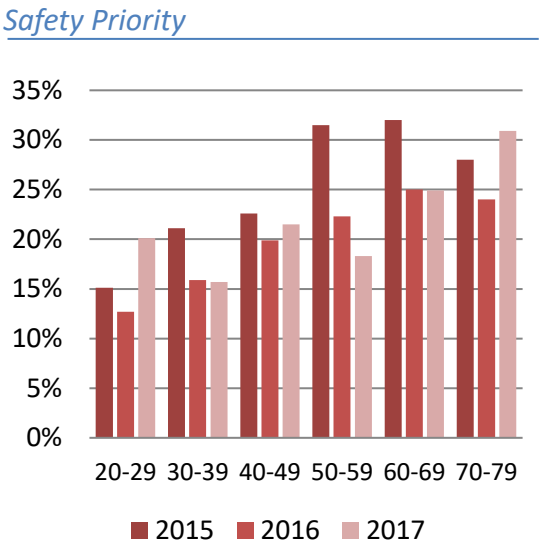


Figure 53: Safety priority by age group. Source: JFC[103]

It is apparent that health consciousness among consumers shopping for food products is particularly common among elderly respondents. Especially the oldest age category, 70 to 79 years old, consistently shows *healthiness* to be of main concern. *Safety*, similarly to *healthiness*, also seems to be more important among older respondents compared to the younger ones. Interesting here is that *safety* seems to have lost prioritisation among respondents in the age group 50 to 59 years old.

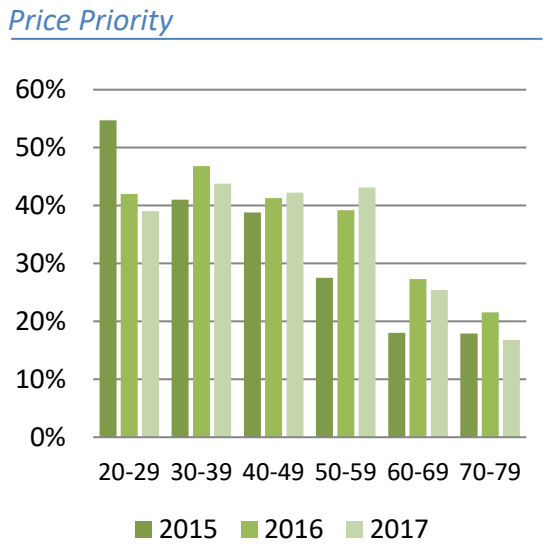


Figure 54: Price priority by age group. Source: JFC[103]

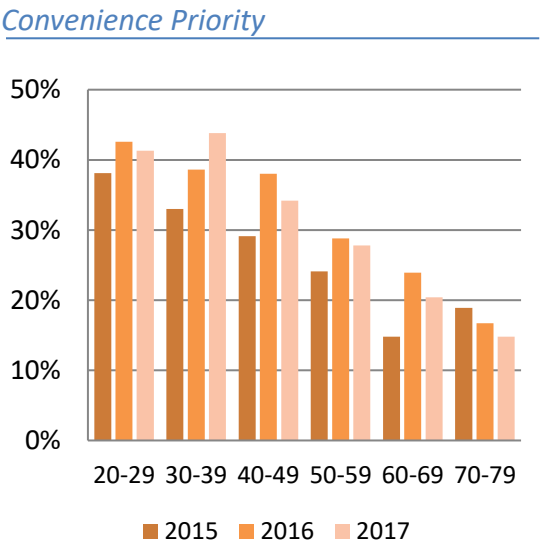


Figure 55: Convenience priority by age group. Source: JFC[103]

The younger respondents seem to prioritise the *convenience* of food items over anything else. What stands out in this category is the change within the age group 50 to 59 years old. This age group seems to have shifted from *safety* conscious, to more *price* conscious in recent years. As for *convenience*, this too seems to be less of a concern among the elderly respondents as it was for the younger and middle aged ones. In general, the perceived health benefits of food products are important for purchase decisions. In fact, a study analysing the effect of certain positive product attributes combined with certain negative ones, found that healthiness is, more so than

any other attribute, able to offset negative attributes of a product such as high price or bad taste/flavour[104].

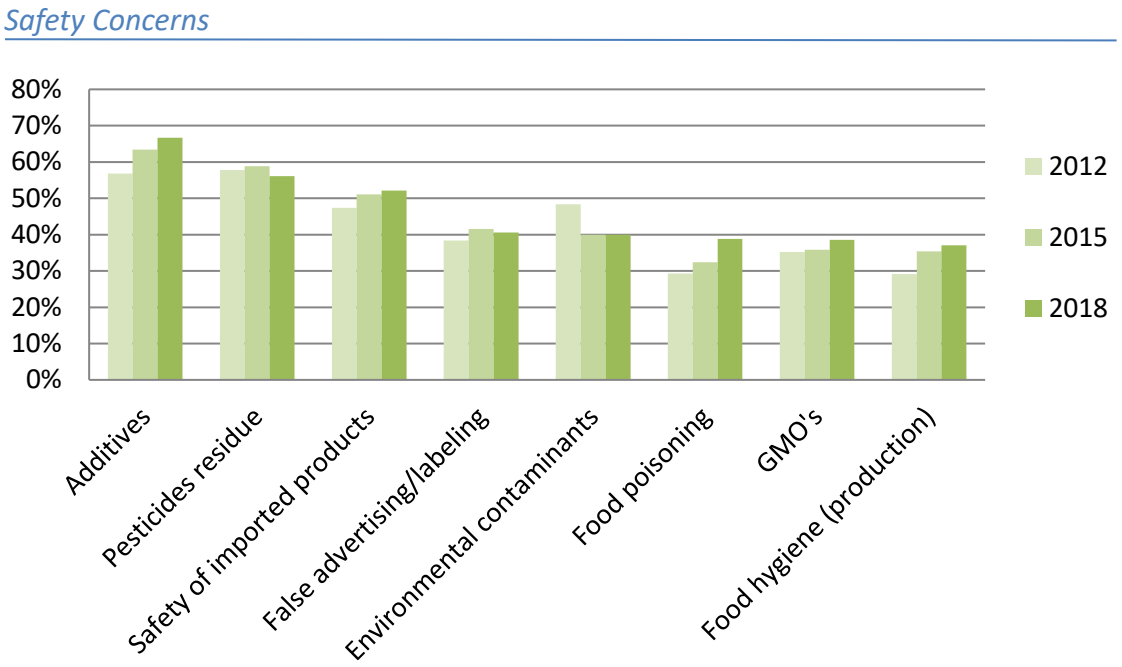


Figure 56: Main consumer safety concerns when buying food items. Source: Myvoice[105]

With safety being one of the main concerns with food purchases, it would be interesting to see what exactly the consumer worries about when shopping. A survey from 2018, performed by MyVoice [XX], gives some interesting insights in main safety concerns among Japanese consumers[105].

The main concern, particularly in recent years (2018), is *product additives* (66,7%)[105], followed by *pesticides residue* (56,1%). The *safety of imported food products* (52,1% in 2018) is another major concern according to respondents, even more so in recent years[105]. The same study also however, asked respondents for what type of product these concerns are most relevant. The *safety of dairy products* were only a concern for 14,1% of the 2018 respondents which is relatively low. For reference, the percentages in the same year were 13,8% for tap water and 22,5% for processed soy products[105].

Some of these values mentioned above were also shown by a comparative study on food choice motives among consumers in Japan, Taiwan, Malaysia and New Zealand from 2002[106]. The study uses the Food Choice Questionnaire (FCQ)[107] measuring the importance of nine selected factors relevant to food choices. The factors measured in the study were: 'Health'; 'Mood'; 'Convenience'; 'Sensory Appeal'; 'Natural Content'; 'Price'; 'Weight Control'; 'Familiarity'; and 'Ethical Concerns'. The top five most important factors among the Japanese respondents[XXI], plus the questions as used by the study where[106]:

- Price: *"is not expensive; is cheap; is good value for money"*

[XX] Sample size: 10.510
[XXI] Sample size: 165 (woman)

- Natural Content: *"It is important to me that the food that I eat on a typical day: contains no additives; contains natural ingredients; contains no artificial* ingredients"

- Health*: "It is important to me that the food that I eat on a typical day: contains a lot of vitamins and minerals; keeps me healthy; is nutritious; is high in protein; is good for my skin/teeth/nails, etc.; is high in fibre and roughage"*

- Ethical Concerns: *"It is important to me that the food that I eat on a typical day: comes from countries I approve of politically; has the country of origin clearly marked; is packaged in an environmentally friendly way"*

- Sensory Appeal*: "It is important to me that the food that I eat on a typical day: smells nice; looks nice; has a pleasant texture; tastes good"*

This study is interesting as it also defines the questions measuring the motives as they were presented to the participants. The definitions leave less ambiguity regarding the interpretation by respondents, and therefore, the interpretation of the results.

The findings from this study confirm the importance of the perceived health benefits from products and its price. Different than with the previously covered surveys, this study did not include '*Safety*' as a motive, however, it did measure (amongst others) '*Ethical Concerns*' and '*Sensory Appeal*' which, according to the study, both are important factors for the Japanese consumer when buying food products.

Of course prioritisation in attributes is likely to be product dependent. A survey report by JFC from 2015, shows the priorities in food item attributes for several food groups, among which dairy[108].

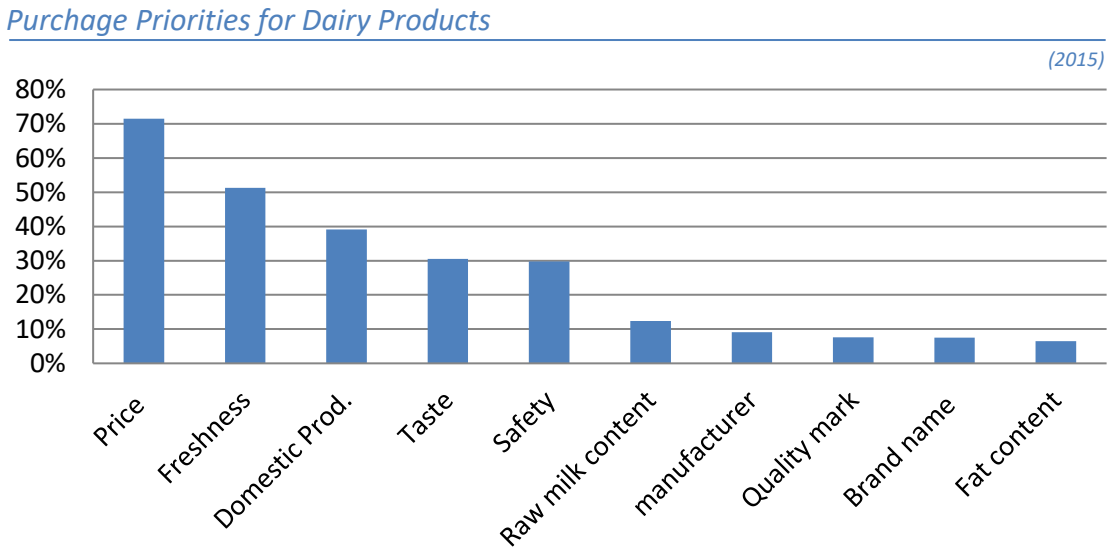


Figure 57: Consumer purchase priorities for dairy products. Source: JFC[108]

Interesting to see here, is the fact that *price* seems to be given priority by respondents. However, it should be noted that this survey did not include '*health*' or '*healthiness*' as a response. Another interesting finding is the preference for *domestic products* among respondents. The study even

shows that the specific region of domestically produced dairy is an important factor for buyers (21,2%)[108]. Part of the reason the domestic origin is an important factor for dairy purchases might be explained by one of the before mentioned surveys by J-Milk. One of the surveys included the attitude towards the country's dairy farmers. The results showed than among the respondents, particularly the older generations, there is a high level of empathy (and overall positive attitude) towards dairy farmers[99].

A previously mentioned survey by MyEl[102] regarding cheese consumption, also asked respondents what they look for when buying cheese for home consumption. Interesting from the results is the contrast with those of the JFC survey regarding dairy in general. The MyEl survey results show that, while *price* is still an important aspect, it is the *taste* of the cheese which is most important[102]. Other interesting findings are the apparent importance of *packaging*, such as quantity, volume and individual packaging.

Purchase Priorities for Cheese

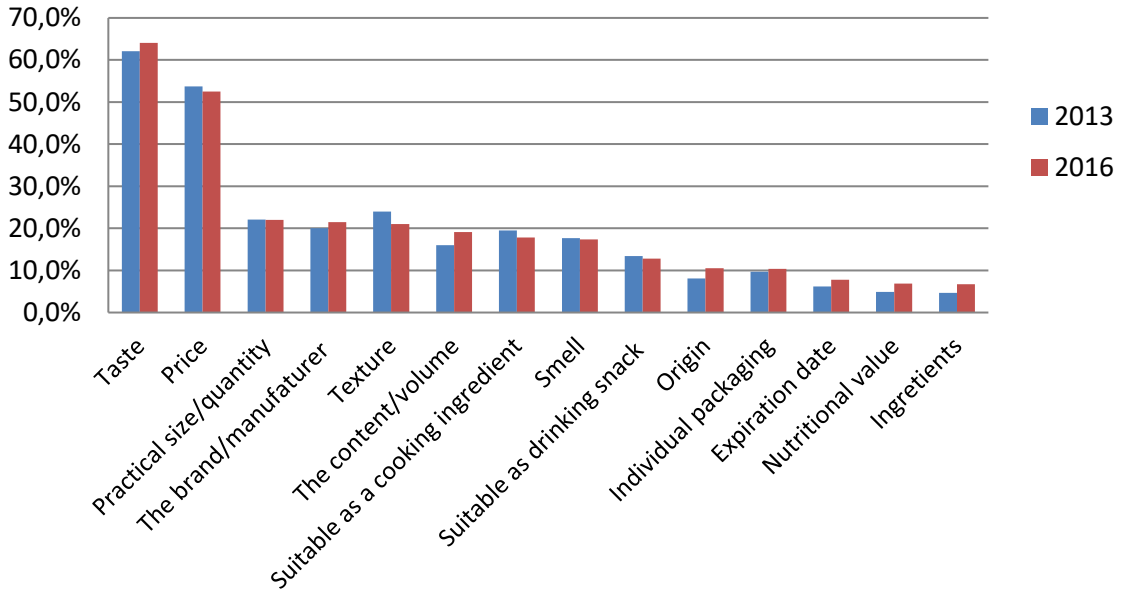


Figure 58: Consumer purchase priorities for Cheese. Source: Myel[102]

Although this survey did include '*Origin*' and '*Manufacturer*' as purchase priorities, it did not measure preference for domestic products as was done in the JFC survey[108].

5.1.3 Origin Concerns

The preference for domestically produced food products was also shown by the results of the before mentioned JFC survey. For this survey respondents were asked to what extent they prefer domestic food items, and compared the image of domestic and imported food[103].

The survey results show that 80,4% of the respondents care if food items are produced domestically when grocery shopping, opposed to 16,7% that do not[103]. The awareness of food item origin does seem to drop drastically when people eat out, as for this situation only 33,9% of respondents said to care whether the food was produced domestically, opposed to 57,9%

that did not[103]. This could, at the very least, indicate a accepting attitude towards food with a foreign origin (if not preference) when eating out.

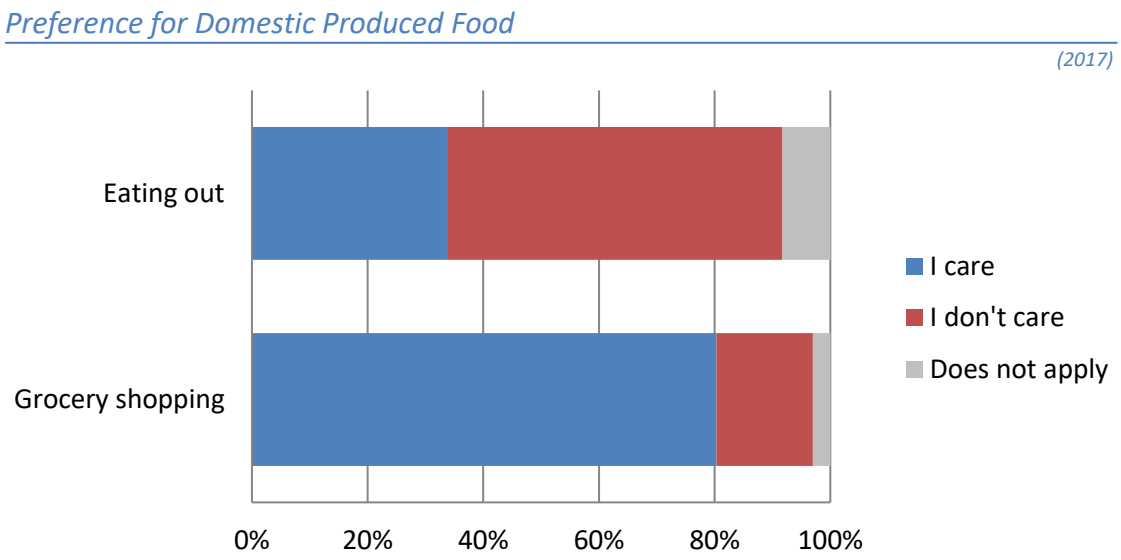


Figure 59: Consumer preference for domestic food, comparing grocery chopping & eating out. Source: JFC[103]

The report also compares the image, in respect to four of the main priorities mentioned before, between domestic non-processed food items and imported ones. The graphs below shows the comparison based on *price image* and *safety image* of food items.

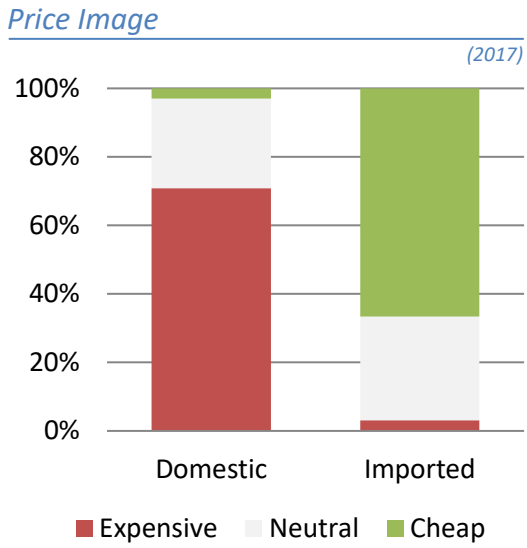


Figure 60: Price image imported foods. Source JFC[103]

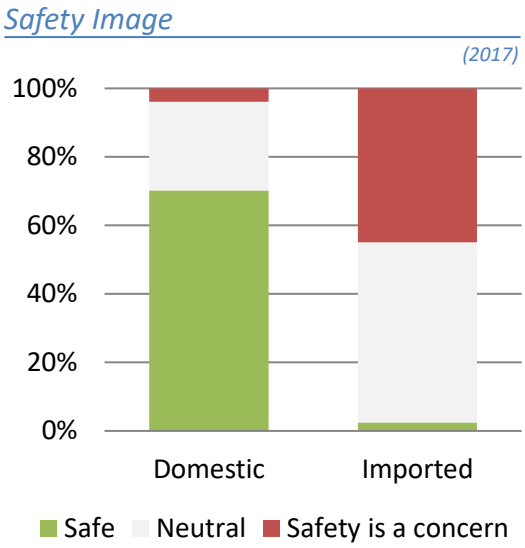


Figure 61: Safety image imported foods. Source JFC[103]

The comparison shows that, among respondents, imported food items have a relative *cheap image* compared to domestic ones. Of course, depending on priority, this can affect purchase decision in different ways. However, the image of food items in regards to their *safety* could indicate a much more serious problem regarding the image of imported food products. The concern for safety among Japanese consumers when buying food items is shown by other research as well[109]. A survey regarding eating and shopping habits, performed by Japan's national broadcasting cooperation NHK in 2016, showed that by far the main concern with imported food is *safety*, followed by a concern about *freshness*[110].

This preference for domestically produced food products also affects the consumer price tolerance. According to the research findings, respondents showed willingness to pay more for domestic produced products over similar imported ones when given the option[103]. When comparing survey results from 2015 to 2017, by average, 87,7% of respondents said to prefer to buy domestic produced food items when shopping. Of these respondents 68,2% was actually willing to spend more on domestic products. In fact, 19,3% of respondents were even willing to pay a price of up to 30% and higher, than that of an important equivalent. The disposition to pay more for domestic products has been shown by other studies as well[109].

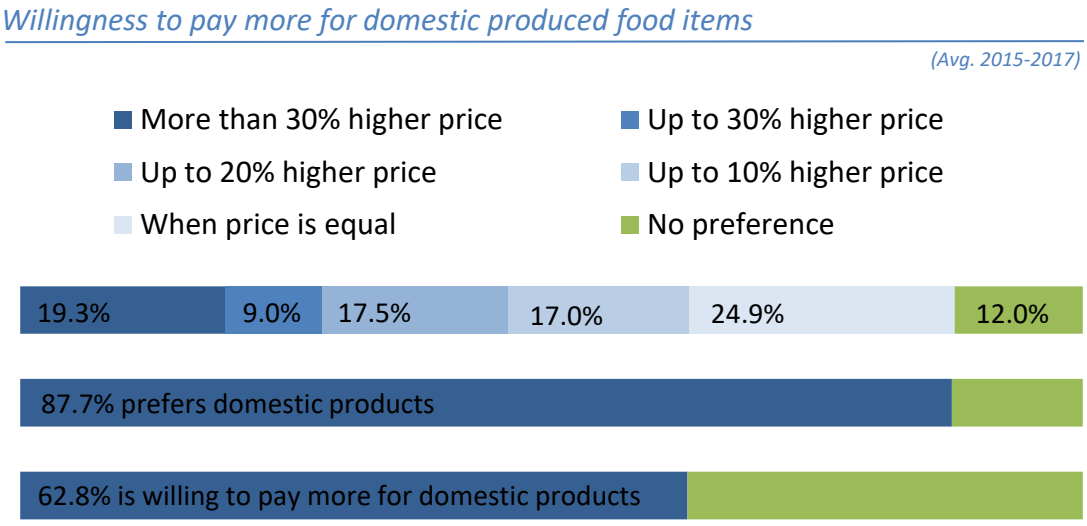


Figure 62: Consumer willingness to pay more for domestically produced food items, 2015-2017. Source: JFC[103]

It should be noted however, than the product selection used for the survey to test the price tolerance did not include dairy. Also, the overwhelming preference for domestic produced rice significantly affected the overall average[103].

5.2 Dietary Variety in Japan

The study and survey results covered in this chapter so far might have portrayed the Japanese consumer in a way that makes them seem unlikely to accept foreign and unfamiliar food; however, this would be a gross misrepresentation.

The previously mentioned study from 2002, using the FCQ to measure food choice motives, showed for example, that the factor '*Familiarity*' scored the lowest of all nine factors[106]. The definition of the factor as given to the participants was:

- Familiarity: *"It is important to me that the food that I eat on a typical day: is what I usually eat; is familiar; is like the food I ate when I was a child"*[106]

The authors of the study made a clear remark, stating the low measured importance of *familiarity* does not necessarily indicate responsiveness to unfamiliar foods. The researchers measured the acceptance of new and/or unusual food of respondents using the Food Neophobia Scale (FNS)[111]. The low correlation between the *familiarity* and overall FNS scores across participants made the researchers reject the idea the scores could suggest a likeliness to acceptance of new and/or unusual food.

However, when taking into account just the results of the Japanese participants, it is interesting to note that the FNS score was significantly lower among Japanese respondents when compared to respondents from the other countries. This could suggest, at least in a case of Japan, a responsiveness to unfamiliar foods.

Backing up this suspicion, as well as a more detailed explanation, can be found in an ethnographic study from 2016, examining the cultural influence on food choice in Japan[112]. This particular study is interesting because, unlike the research covered so far, it takes a qualitative approach, complimenting existing quantitative based findings.

The author of the study focuses in particular on a food choice motive that, according to the author, is distinctive of the modern Japanese food culture, '*variety*'. The author uses examples of *washoku* meals and *obento* lunchboxes containing a variety foods varying in flavour, textures and appearance as examples of variety in more traditional Japanese dining. Also, the fact that children are introduced to diverse and varying foods during their childhood is, according to the author, not only resulting in a "flexible" palate, but even a deep appreciation for food variety. The cultural phenomenon is even claimed to be augmented by media, e.g., in the form of publications instructing parents how to deal with selectiveness in kids, and TV shows solely based on celebrities eating unfamiliar foods[112]. According to the author, not having likes and dislikes (in respect to food) is perceived as good manners in Japan, with very little understanding for those who do. Adventurousness and the ability to appreciate a wide range of flavours, textures and appearances, is considered the norm.

The findings of the study suggested that the motive of variety can be described from three basic perspectives[112]:

- Within a meal
- Across locations
- Across time

Picture 4: An example of washoku and its variety. Source: Japantimes.com

The earlier mentioned *washoku* meals and *obento* boxes are examples of variation within a meal, as well as *sushi* (rice balls with toppings of seafood and vegetables) or even *otsumami* (snacks consumed with alcohol). The variety in a meal is hardwired in the Japanese culinary culture, as is evident from the 'five pillar' philosophy for cooking[113, 114].

- The five colours: Red, Green, Yellow, White, and Black
- The five ways of preparation: Simmer, Steam, Grill, Fry, and Raw
- The five senses: Taste, Smell, Sound, Texture, and Appearance
- The five tastes: Salty, Sweet, Sour, Bitter, and Umami/Savoury

The food variety across locations comes to play with the Japanese interest for local foods. In fact, for Japanese travellers, food is considered a 'tourist attraction'[112]. Whether it is domestic or abroad, gastronomic tourism is very common in Japan[115]. The concern for food origin, as shown by survey results covered earlier could be a manifestation of the location perspective as well. Throughout history, Japan has adopted many aspects of foreign cuisines and, generally, has

shown great interest in foreign food[116, 117]. This understanding is crucial, as it offers some perspective to the survey results covered earlier regarding the attitude towards foreign food.

Variety across time is, according to the author's ethnographic observations, the third motivation for food choice and distinctive to Japanese culture. According to the author, this manifest itself in how the Japanese value variety in their day to day diet, making sure not to eat the same dish twice in a row, or even within the same month[112]. Another very interesting finding is the seasonal influence on food choices. While traditionally the seasonal availability, quality (freshness) or price were reasons for variation, this phenomenon today, is still ubiquitous in Japanese food culture. In fact, seasonal or time limited offerings are incredibly popular[118, 119, 120] and are an often used marketing strategy in the food (service) industry[121].

5.3 The Western Diet in Japan

Throughout the past century, the Japanese diet has undergone some drastic changes. Particularly after the end of the Second World War, caloric intake shifted from traditional sources such as rice and seafood, towards a more Western style consisting predominantly of animal-based protein sources. This shift would lead to an ever increasing consumption of meat and dairy in Japan over the following decades, as well as significant changes in over-all eating habits[122, 123].

5.3.1 The Western Diet in Japan, Consumer Perception

In 2017, MyEl held a survey on Western food in Japan[124]. The survey measured the overall consumer attitude, as well as more specific perceptions of the western diet. The result of this survey showed a rather positive consumer attitude, albeit with some important notations.

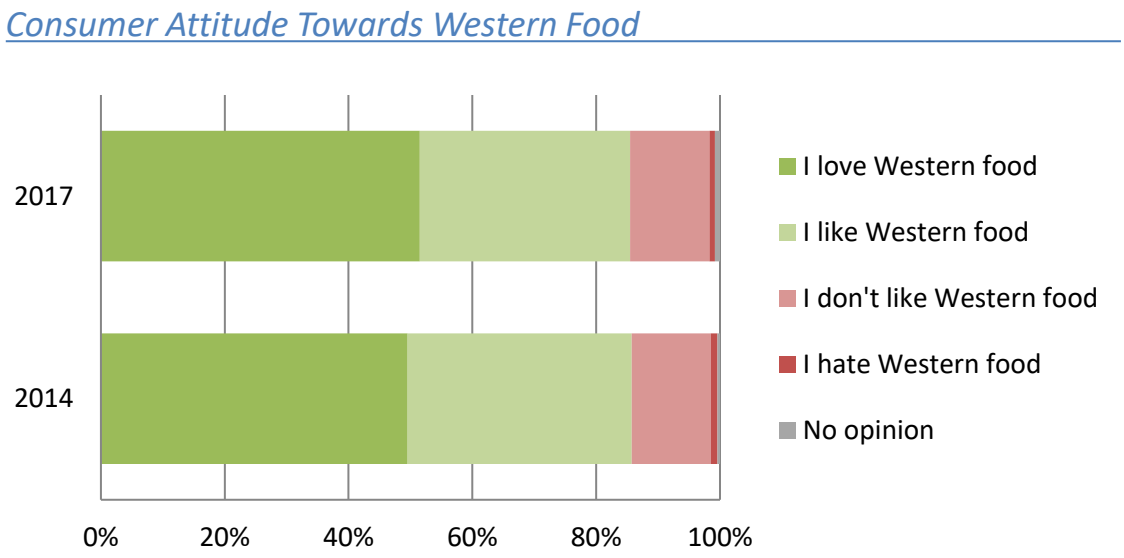


Figure 63: Japanese consumer attitude towards western food, 2014/2017. Source: MyEl[110]

What stands out from the results of this survey is the 51,5% majority of 2017 respondents that were highly positive towards Western food. In total, 85,5% of 2017 respondents showed a positive attitude, compared to 13,7% that didn't[124]. This positive outlook on Western food also showed in consumption. In the same survey, 77,8% of 2017 respondents said to eat Western food on a weekly basis when dining at home. Only 2,7% said never to eat Western food at home[124]. The results seem to be fairly consistent with those from earlier surveys (see results 2014), substantiating their accuracy.

The same survey also included the image of Western food among Japanese consumers. Similar to the results regarding the overall attitude towards Western food, the results are compared with those from a same survey from 2014, showing relatively consistent findings.

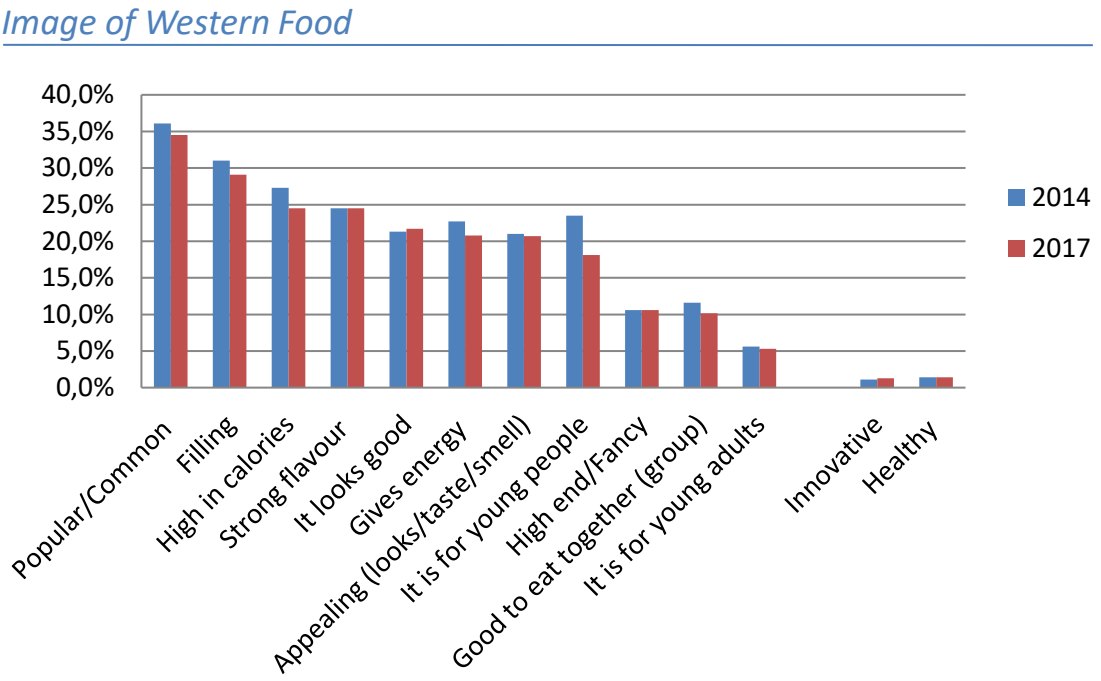


Figure 64: Image of Western food among Japanese consumers, 2014/2017. Source: MyEI[124]

The image above shows a selection of the most frequently mentioned attributes assigned to western food by the respondents, plus some interesting observations. The overall positive attitude towards Western food shows in these results as well, since almost 35% of the 2017 respondents would describe it as '*popular*' or '*common*', indicating it is regarded as fairly mainstream and familiar rather than exotic or unfamilliar[124]. The respondents also seem positive regarding the *aesthetics* of Western food, which, as noted by the researchers, was particularly the case among female and younger respondents[124]. Another interesting observation from the survey results, is the image of Western food as '*filling*', '*high in calorie*', and '*giving energy*'. This does not have to be considered as negative per se, however, noting only 1.4% of respondents attributing '*healthy*' to Western food; this might indicate a certain image problem. Another noteworthy observation is the low score of '*innovative*' (1,3%) as an attribute[124]. Unfortunately the research does not elaborate on this particular finding. However, a possible reason could be the fact that most foreign food is based on traditional cuisine, and therefore does not change much over time.

5.3.2 The Adoption of Dairy in the Japanese Cuisine

The initial familiarisation with dairy, as well as its growing popularity, was a result of the introduction of Western cuisine and eating habits that incorporated dairy. For example eating fast-foods like pizza, or having cereal and milk for breakfast were eating habits that, due to their growing popularity, are likely to have accelerated the rate to which Japanese consumer grew accustom to dairy. A survey regarding dining habits from 2016, performed by Japan Finance Corporation (JFC), showed that 35% of the respondents said to include dairy in their breakfast, 15% in their lunch, and 10 % in their dinner (in all three cases the percentage among woman was notably higher)[125].

The increasing consumption numbers mentioned before are, of course, a clear indication of dairy having become a commonly accepted food source in Japan. However, proof of true adoption in its national diet is illustrated by a more recent phenomenon, the incorporation of dairy in traditional cuisine.

Rather than accepting dairy as merely an ingredient in certain foreign dishes and foods, the Japanese are starting to experiment with how to incorporate or combine dairy, with dishes that are generally considered being traditionally Japanese/Asian (e.g. rice cakes with cheese[126)].

This trend might have been started by various agricultural and dairy interest groups that, besides promoting the consumption of dairy by emphasizing health benefits[134], have been actively trying to educate the consumer by making recipe suggestions using dishes that are common and familiar[127, 128, 129, 130]. Similar initiative have come from the industry where dairy manufacturers actively promoting the usage of dairy in home cooking by, e.g., Moringa[131], Megmilk[132, 133], and QBB[134].

Picture 4: Sushi made with raw tuna and milk. Source: DairyJapan.com

However, dairy seems to have become a commonly accepted ingredient on the general Japanese cooking websites as well. A quick search will result in many examples of recipes incorporating cheese[135, 136, 137], butter[138, 139, 140], milk[141, 142, 143], or yoghurt[144, 145, 146].

These examples show that dairy has become a commonly excepted food category with an important role in the contemporary Japanese diet. Perhaps most interesting however, is that these new found purposes and uses for dairy products, show that Japan has created a truly unique and distinctive dairy culture with products and uses that are unknown in the West.

5.4 Importers & Corporate Buyers

The consumer values and purchase priorities covered so far are, considering their distinctive character, crucial insights for foreign businesses. Equally important however, is a thorough understanding of the values and priorities of Japanese corporate buyers. It would be safe to assume corporate buyers to have most values in common with the consumer. This not only due to a shared cultural background, but as these buyers will, logically speaking, base their purchase decisions with the final consumer in mind. However, due to the complex nature of business-to-business relations, corporate buyers might also have additional values or different prioritisation.

From 2013 to 2018, JMA (The Japan Management organisation), organiser of FoodEx Japan, interviewed a total of 27 people in purchasing positions, with 15 Japanese food importing companies[147]. The buyers were asked for their experience with foreign companies, what they value most in their relationships, and their specific market insights. Similarly, the organisers of the Supermarket Trade Show in Japan, holds annual surveys among their visitors[XXII]. The visitors (typically corporate buyers or professionals) were asked for their main interests, needs, and market insights[148].

The following subchapter will be based on the analysis of these two sources, as well as own interviews with (anonymous) Japanese dairy importers that were conducted during the research preceding this report.

5.4.1 The Buyer-Seller Relationship

As one would expect, based on previous discussed findings, safety is of the highest priority among Japanese importers. The interviewees were very outspoken in their quality standards. The importers need to have total confidence in their foreign business partner before deciding on a purchase, something which was emphasised by the demand for a high level of transparency from the selling party. Besides quality and safety concerns, the transparency in, e.g., the production process is also meant to give the buyer peace of mind in regards of the supply, for which the reliability is another important concern.

With quality and safety in mind, the Japanese buyers indicated to highly value quality certifications of products or manufacturers. Depending on the product and businesses involved, it is to be expected for the Japanese importing party to request additional, or more detailed, documentation and certification of certain goods before purchasing. Probably more so than would be the case with buyers from other countries.

Another (very important) observation, is the aspiration for building a strong and long term relationship. Besides trustworthiness, sincerity and honesty were also often mentioned qualities the Japanese buyers seek in their business partners. The interviewees explained to understand standards and certain definitions can vary from culture to culture, which, as they explained, requires openness and honesty to avoid any misunderstandings.

[XXII] Visitor surveys used: 2016 & 2017

When it comes to unfamiliar products in particular, the buyers expect the sellers to be highly knowledgeable regarding their products. This not only creates trust, it is also required to educate the buyers and consumers on use of the products. Among both the interviewees and the survey respondents, an often mentioned reason for visiting trade shows is to learn on proper usage of foreign food items. When products are new to the Japanese market, this is necessary as the importers, on their turn, need to educate the consumer.

The buyers also made very clear to appreciate a thorough understanding of the Japanese market in their partners. This entails understanding of laws and regulations, as well as consumer wants and needs. Accordingly, importers expect a high level of flexibility of sellers, as the products likely need to be adapted to the Japanese market (e.g., packaging, appearance, size). Some respondents mentioned to consider previous experience with doing business in Japan to be a plus when looking for overseas partners.

5.4.2 Common Issues and Problems

Japanese importers are aware that it can be difficult for foreign businesses to meet the onerous laws and regulatory requirements, not to mention the high expectations of the Japanese consumer. However problems in this regards do, once more, emphasise the importance of a thorough understanding of Japanese culture and regulations from the exporting party.

As mentioned previously, there is some concern with Japanese importers regarding differences in quality standards when doing business with foreign companies. One often mentioned issue is disagreement that occurs in the case of damaged goods. Japanese consumers have high standards for product appearance, any package damage will mean an item cannot be sold and will be regarded a loss, even when the content is unaffected.

Another common issue, and one that is particularly relevant to perishable dairy products, is a discrepancy in standards with regards to expiration dates. Japanese importers expect at least on third (in some cases even half or two thirds) of the good's expiration date left on moment of arrival. This goes for any type of perishable good, regardless of the initial length of its shelf life. Particularly large retailers and department stores will have high demands in this regard, while smaller specialised shops are likely to be more lenient.

Finally, in case of new and unfamiliar food items, Japanese buyers require time to create a demand in the domestic market. This means that, initially, they will place relatively small orders (as trail products), something that is not always met with understanding from the foreign seller. This issue goes back to Japanese buyer's aim to build a long lasting relationship with their business partners. Patience and flexibility from the seller's side is regarded as a reasonable investment in the relationship. The initial orders are used as 'trail-orders', to test the seller's service and reliability, as well as 'test-marketing' to test how the product performs.

5.4.3 Product Priorities

When buying food items from abroad, price is, as one would expect, a common concern for Japanese buyers, as are quality and safety. However, a much more interesting theme that stood out in both the Interviews and survey results was the constant hunt for new and original products by Japanese buyers. Many of the interviewees said to look for novelty items, foods that are not yet sold in Japan. One reason for this, as was explained, is that retailers are looking for items that give them a competitive advantage. Another reason however, was that a constant supply of new products is needed to fulfil consumer demand.

This corroborates the findings from earlier this chapter regarding dietary variety. It shows that the consumer expects a high level of variation, which means frequent additions and changes to the inventory.

Besides novelty and originality, importers are very keen on product appearance when buying food items. The product packaging (design/shape/size) should appeal to domestic consumers, as well as being in line with the retailer's general image. The importance of an impeccable packaging has been explained previously; however the overall design should be appealing and (for new items particularly) serve the purpose of educating the customers on usage of the product. In many cases, the product quantity size needs to be reduced to better fit the Japanese market due to different eating habits and high number of single person households.

These specific demands mean (in case of retail products) very few foreign products can be sold without at least some sort of modification for the Japanese market.

5.4.4 Market Trends

When asked about their customers, Japanese retailers, once more emphasise the incredibly high demands. Considering its success rate, retailers believe that the trends of finding new and creative ways to employ seasonal and limited time offerings as a promotional tool for food products will only grow.

Another trend anticipated by Japanese food importers is a growing demand for high-end food products. Whether it is while dining at a restaurant, to enjoy at home with friends, or meant as a gift, the Japanese consumer seem to have an increasing interest in exclusive food items. This prediction seems plausible as it fits the current demand for novelty items and variety.

On the other end of the scale, importers expect an increase in demand for small and practically packaged food items due to the aging population and growing single person households. With regards to the aging population, some retailers said to believe the demand for protein rich foods will increase significantly in the coming years.

Another expected trend (partially) resulting from the aging population is 'health food'. Most importers seem to agree that, with growing health awareness among the Japanese, health foods, as well as 'functional foods', will become much more popular.

Some importers say to believe that the market for organic foods will grow as well; however others suggest that the (Japanese) consumer's obsession with product aesthetics and fear of bugs will hinder further development of this market.

5.5 Relevant Industries & Markets

Imported dairy products to Japan are, as previously explained, used for a large variety of applications. The following subchapter will give a quick insight in a selection of industries that are particularly relevant to foreign dairy. Apprehension of the situation in these industries and markets, helps understand past changes in demand for specific dairy products, as well as giving an indication of future developments.

5.5.1 Food Service Industry

Japan has a massive food service industry that, in recent years, has shown promising sales results. In 2017, the food service market reached ¥25,7 trillion/€202,8 billion[XXIII] (¥32,8 trillion/€258,9 billion[XXIII] including food retail), showing growth for the fifth year in a row[149, 150]. It is estimated that more than half of the menu in this sector includes, at least some form, of imported food[151].

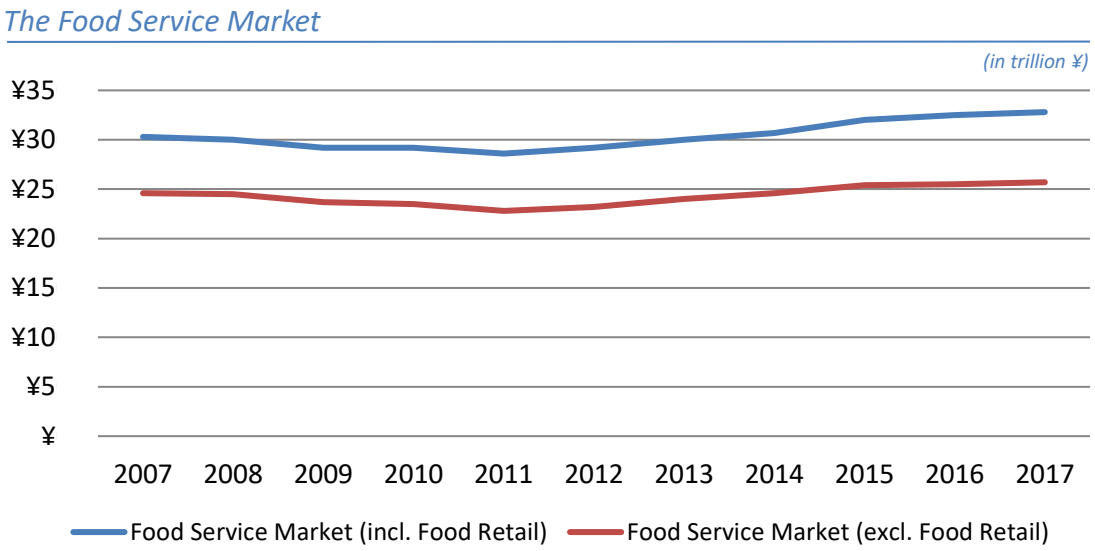


Figure 65: The food service market of Japan sales over time, 2007-2017. Based on data by: Japan Foodcervice[150]

Restaurants are the largest subsector within the food service industry, making up for nearly half of the market[151]. Prepared meals are generally sold in retail stores such as department stores (high-end) and convenience stores (low-end)[152], however in Japan they are included as a part of the food service industry. These ready-made-meals take, with 22%, the next largest share of the 2016 market. Drinking establishments like bars, pubs, and izakaya's make up for another 15%. Institutional food service, such as schools, hospitals and correctional facilities, constitute 10% of the market, similar in size to the 9% market share of the hotel industry[151].

[XXIII] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

Food Service Indusry Japan 2016

(by market share)

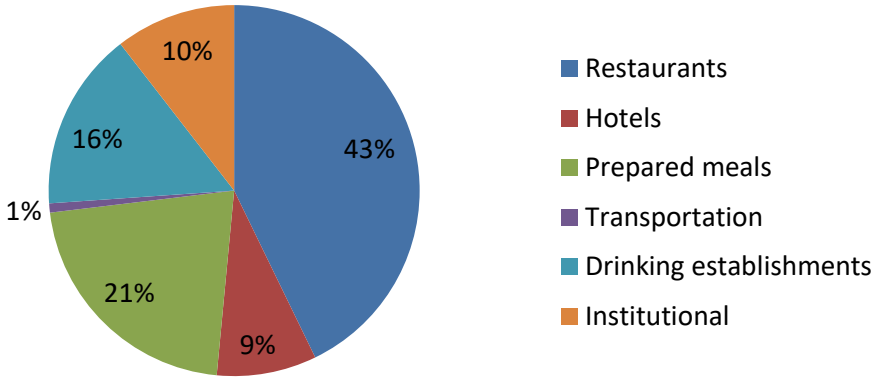


Figure 66: Composition of the food service industry of Japan. Source: USDA GAIN[151]

Due to its market share, the restaurant sector is particularly interesting. Although a certain distinction is important as not all types of restaurants within the sector are equally likely to use dairy products in their menu.

Looking at the historical sales data from 2011 up to 2015, it shows that the market share of restaurants within the food service industry has increased significantly. This growth seems to have been at the expense of drinking establishments for witch sales only increased marginally over this period.

Food Industry Numbers (¥ x 100 million)					
Sector	*2011*	*2012*	*2013*	*2014*	*2015*
School Meals	4.712	4.905	4.919	4.968	5.079
Hospital Meals	8.231	8.130	8.082	8.203	8.207
Nursery Meals	2.837	2.922	2.991	3.122	3.184
Diners and Restaurants	85.462	88.158	91.150	94.348	96.905
Japanese Style pub & beer halls	9.928	9.780	10.187	10.380	10.672
Food retailers	62.979	64.648	64.934	67.725	71.384
Total food service industry	228.282	232.217	240.099	246.326	251.816

Table 50: Food industry sales over time, 2011-2015. Source: MAFF[80]

Looking at the 2017 year-over-year results of the various sub-sectors, the ones likely to be most relevant to dairy seem to perform rather well. The Western style fast-food restaurant sector shows a relatively strong increase in sales (6,6%) and visits (5,3) compared to 2016, despite a slight decrease in number of establishments[150]. In the family restaurant sector, the Western style family restaurant year-over-year growth is far less pronounced, however sales did increase. On a more positive note, the grill style family restaurant, which has a Western inspired cuisine and is more likely to incorporate dairy in their menu, showed significant increase in sales (7,8%), visits (7,4%), and even the number of establishments (2,6%)[150].

Restaurant Industry 2017			
	Sales YOY	*Number of stores YOY*	*Number of visits YOY*
Total Food Service Industry	103,1%	100,6%	102,2%
Fast-food restaurant	104,6%	100,7%	103,1%
Western	106,6%	99,4%	105,3%
Japanese	102,4%	101,8%	100,0%
Noodles	105,4%	103,7%	104,1%
Take-out (Japanese style)	101,0%	98,6%	98,0%
Other	103,4%	100,7%	105,2%
Family restaurant	101,5%	100,7%	99,9%
Western	100,9%	100,5%	99,7%
Japanese	98,9%	99,5%	98,2%
Chinese	102,0%	101,3%	100,5%
Grill	107,8%	102,6%	107,4%
Bar/Izakaya	99,0%	96,6%	99,7%
Pub/bar	102,7%	102,9%	104,9
Izakaya	98,1	95,6%	98,0%
High-end Restaurant	104,5%	101,9%	104,5%

** Take note that there is some overlap between the different categories of establishments.*

Table 51: The restaurant industry of Japan 2017. Based on data by: Japan Food Service[150]

Another interesting observation is the performance of the bar/izakaya sector. Both types of establishments generally serve food or snacks; however izakaya's are typically more traditionally Japanese, whereas pubs or bars often are Western inspired. The bar/pub sector performed well, with significant increases in sales (2,7%), visits (4,9%) and number of establishments (2,9%), while the izakaya sector showed far less positive results[150].

Finally, the more high-end restaurant sector showed a significant growth as well, both in sales (4,5%) as in visits (4,5%)[150]. This subsector however, does not differentiate between different cuisines or types.

Overall the food service sector seems to do rather well and, at least in most recent years, shows promising results in the sub-sectors that are most relevant to the dairy industry.

5.5.2 Bakery & Confectionary

Most dairy categories covered in chapter 5 are imported as ingredients for the production of food. Butter, as well as some other types of dairy, is a common ingredient in bakery and pastry products. Lactose on the other hand, is an often used sweetener in the production of chocolate and candy. Whey is used in both bakery and chocolate manufacturing as well, albeit in lesser quantities.

The 2017 confectionary market showed growth for the fifth consecutive year reaching ¥3,4 trillion (€26,8 billion)[XXIV], the highest sales in 21 years[153]. Chocolate sales in particular have been increasing every year since 2009 and reached ¥550 billion (€4,3 billion)[XXIV] in 2017, a 4,6% year-

[XXIV] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

over-year increase and totals 16,2% of the overall confectionary market[153]. Sales of Western confectionaries on the other hand, i.e. cakes, sponge-cakes and doughnuts, have somewhat decreased since 2009. However with ¥423 billion (€3,3 billion) [XXV] in sales, Western confectionary composed a significant 12,5% share of the 2017 confectionary sales.

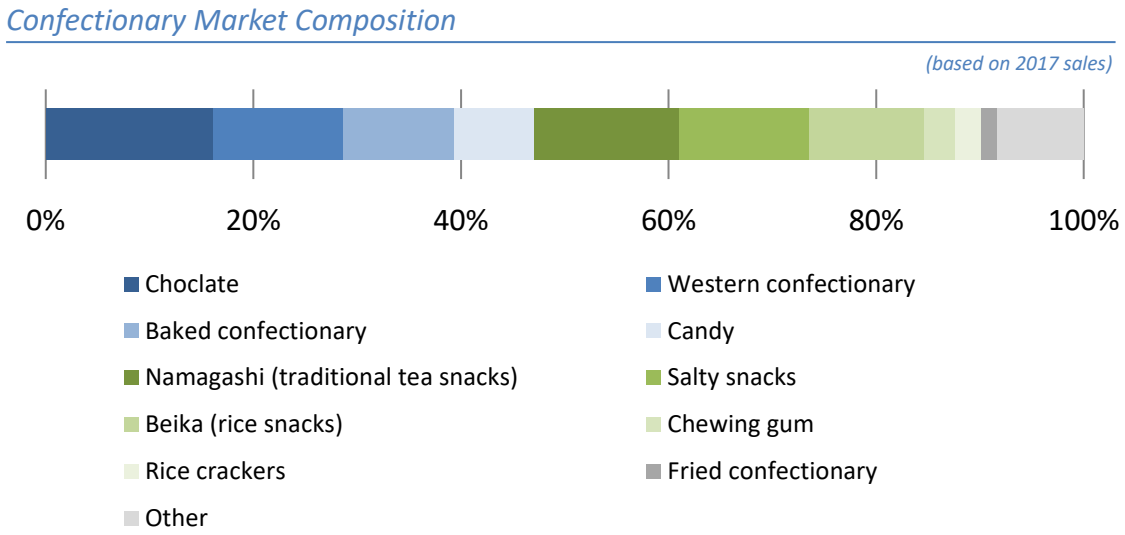


Figure 67: Composition of the confectionary market of Japan, 2017. Source: Nikkei Shimbun[153]

The market for baked confectionary (e.g., cookies, crackers, pretzels and pies), has shrunk by a small percentage as well. However this has just been the case in most recent years, compared to 2009, the 2017 sales of ¥365 billion/€2,9 billion[XXV] (10,8% of confectionary market) is relatively high. Candy sales have been reasonably stable over the years only showing a slight increase, reaching ¥262 billion/€2,1 billion[XXV] in sales (7,7% of confectionary market) in 2017[153].

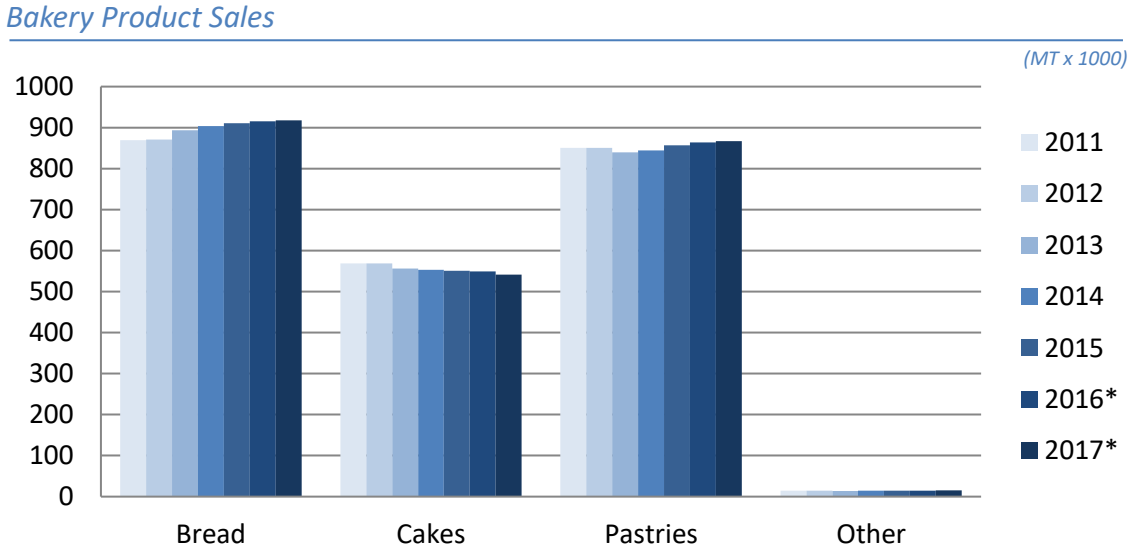


Figure 68: Sales of bakery products in Japan over time, 2011-2017 (based on estimations). Source: AGR[154]*

[XXV] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

The overall market for bakery products has grown slightly in recent years, although most of the growth came from the segment for breads. Cakes sales on the other hand, have slightly decreased, while the sales for pastry products have been relatively consistent[154].

5.5.3 Retail

Japan's massive retail market is the 3rd largest in the world after China and the United States[155], reaching nearly ¥143 trillion/€1,1 trillion[XXVI] in 2017[156]. A substantial 31% of these sales, or ¥44.5 trillion/€351 billion[XXVI], comes from the sales of food and beverages[157].

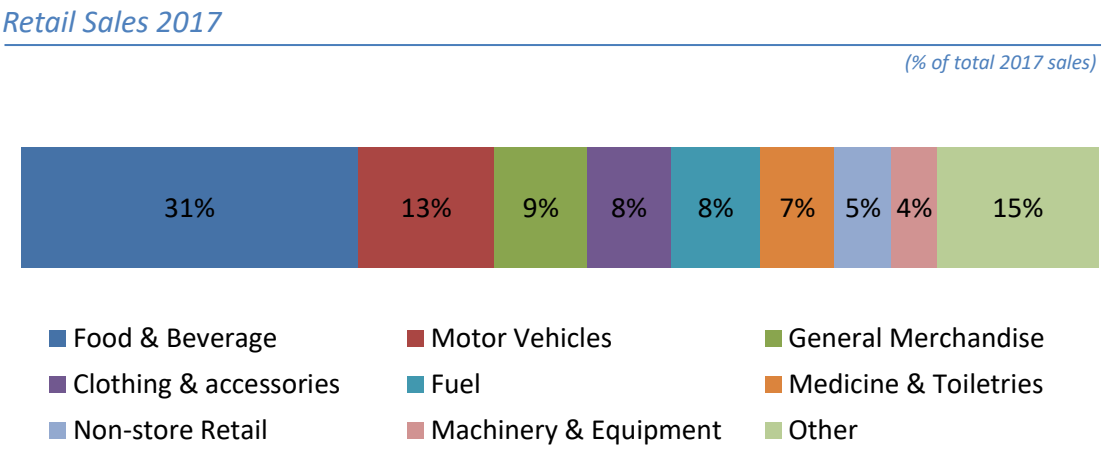


Figure 69: Retail sales Japan, 2017. Based on data by: METI[157]

The Japanese retail market is generally segmented into four parts[156]:

- Convenience Stores
  (¥11,8 trillion/€92,7 billion[XXVI] sales in 2017. I.e., 8,2% of retail market)
- Department stores & Supermarkets
  (¥19,6 trillion/€154,7 billion[XXVI] sales in 2017. I.e., 13,8% of retail market)
- Large (quantity) discount stores
  (¥13,7 trillion/€107,8 billion[XXVI] sales in 2017. I.e., 9,6% of retail market)
- Other (e.g., specialty stores, drug stores, small businesses and E-commerce)
  (¥97.503 trillion/€769,5 billion[XXVI] sales in 2017. I.e., 68,2% of retail market)

Convenience stores, small stores that generally are opened 24 hours a day, seven days a week offering a large variety of low priced consumables and services, play a vital role in the Japanese retail market. Particularly in the cities, due to busy life styles and large number of single person households, many Japanese rely on convenience stores for their daily needs. This especially goes for food related needs, as these account for 68,5% of sales (in 2017). Although the overall 2017 sales of convenience stores only made up 8,2% of total retail sales, the overall food related sales in convenience stores were good for 15,8% of the total retail market's food and beverage sales

[XXVI] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

of the same year[156, 157]. In the years from 2015 to 2017 the overall sales and number of stores throughout the country have increased significantly. The food related sales however, increased notably more than the overall sales, which could indicate the convenience store industry to become of greater importance for future retail sales of food and beverages.

Convenience Store Sales				
	*Total Sales** *(x billion)*	*Fast-food & Groceries (x billion)*	*Processed Food (x billion)*	*Number of Establishments*
2015	¥10.395	¥4.089	¥2.934	54.505
2016	¥10.825	¥4.290	¥3.080	55.636
2017	¥11.099	¥4.423	¥3.169	56.374
	YOY	*YOY*	*YOY*	*YOY*
2015	5,1%	7,4%	5,8%	3,4%
2016	4,1%	4,9%	4,9%	2,1%
2017	2,3%	2,9%	2,6%	1,0%
% of total**	100%	39,9%	28,6%	

* All sales, including non-food related sales.
** *Percentage of total 2017 convenience store sales.*

Table 52: Convenience store sales Japan over time, 2015-2017. Based on data by: METI[156, 157]

Department stores, offering a wide range of (high-end) goods, typically also offered a larger selection of imported food items. While the share of food and beverage sales of the total retail market is considerably smaller than that of the convenience store industry, it still accounted for 28,4% of 2017 sales[156, 157]. Although looking at the sales number from 2015 to 2017, food related sales through this particular channel are decreasing, as are the overall sales for that fact.

Department Store Sales				
	*Total Sales** *(x billion)*	*Food & Beverages (x billion)*	*Restaurant & Cafe (x billion)*	*Number of Establishments*
2015	¥6.826	¥1.926	¥182	246
2016	¥6.598	¥1.895	¥171	239
2017	¥6.553	¥1.862	¥164	232
	YOY	*YOY*	*YOY*	*YOY*
2015	0.0%	-0.2%	-0.6%	-1.6%
2016	-3.3%	-1.6%	-6.1%	-2.8%
2017	-0.7%	-1.85	-3.7%	-2.95
% of total*	100%	28,4%	2,5%	

* All sales, including non-food related sales.
** *Percentage of total 2017 Department store sales.*

Table 53: Department store sales Japan over time, 2015-2017. Based on data by: METI[156, 157]

Super markets sales, not surprisingly, account for a larger share of the overall food and beverage sales than either department or convenience stores. Food and beverage sales make up for 73,9% of the total 2017 supermarket sales, and 21,7% or total retail food and beverage sales[156, 157]. Similar as with convenience stores, the year-over-year increase of supermarket food sales (measured from 2015 to 2017) is relatively high when compared to the overall sales.

Supermarket Sales				
	Total Sales (x billion)*	*Food & Beverages (x billion)*	*Restaurant & Cafe (x billion)*	*Number of Establishments*
2015	¥13.223	¥9.363	¥17,0	4.818
2016	¥13.000	¥9.553	¥17,8	4.841
2017	¥13.050	¥9.644	¥17,9	4.901
	YOY	*YOY*	*YOY*	*YOY*
2015	1,9%	3,4%	-12,7%	1,3%
2016	1,1%	2,2%	4,8%	0,5%
2017	0,4%	1,0%	0,7%	1,2%
% of total**	100%	73,9%	0,14%	

* All sales, including non-food related sales.
** *Percentage of total 2017 Department store sales.*

Table 54: Supermarket sales Japan over time, 2015-2017. Source: Based on data by: METI[156, 157]

Together, the convenience stores, department stores and supermarkets account for 22% of total retail sales, but 41,1% of all food and beverage retail sales. Of the remaining retail sales, 9,6% comes from quantity discount stores. However the aggregate of all other retail sales make up 68,2% of the 2017 retail total, and 58,9% of food and beverage sales.

While traditionally these "other" sales came from small (family owned) businesses and specialised stores, in recent years, online shopping is taking an increasing share of the retail market.

5.5.4 Online Shopping

Online shopping, or E-commerce, has rapidly gained popularity among Japanese consumers, reaching ¥165,1 billion/€1,3 billion[XXVII] in 2017, a 9,1% increase from 2016 and more than double the ¥77,9 billion/€0,6 billion[XXVII] sales in 2010[158]. Another observation of the sales figures is the conversion rate, which seems (for 2017) to be notably higher than the global average[159].

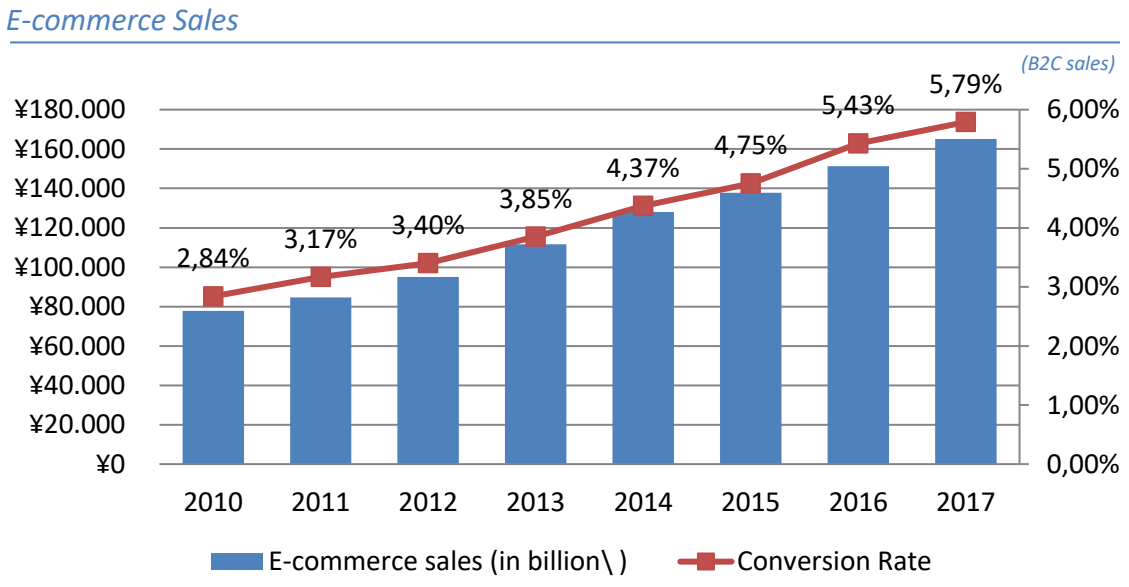


Figure 70: E-commerce sales Japan over time, 2010-2017. Based on data by: METI[158]

[XXVII] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

The E-commerce (EC) market can be divided into three parts, i.e.:

- Sale of (tangible goods), which include food and beverages.
- Services, e.g., financial services, travel agencies, etc.
- Other (non-tangible), such as digital media.

The sale of goods accounted for 52%, or ¥86 billion/€679 million[XXVIII], of 2017 EC sales. Of this ¥86 billion, 18%, ¥15,5 billion/€122 million[XXVIII], comes from the sale of food and beverages[159]. The EC sale of food and beverages grew with 7,4% compared to 2016, while the conversion rate for this category increased from 2,25% to 2,41%[157].

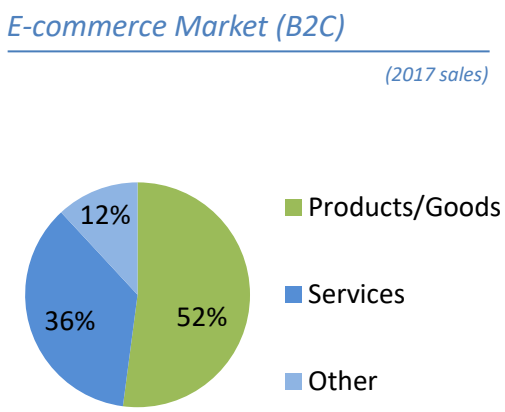


Figure 71: EC market composition, 2017. Source : METI[157]

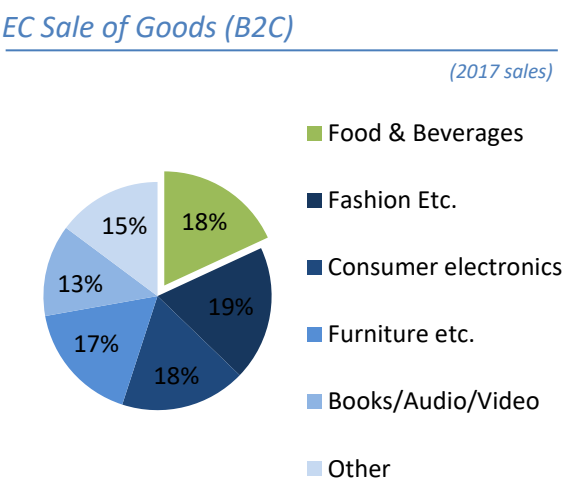


Figure 72: EC Sale of goods composition, 2017. Source : METI[157]

The E-commerce sale of food and beverages in 2017 accounted for 9,4% of the total EC sales and 3,5% of the overall 2017 retail sales of food and beverages[157]. While this percentage is rather low relative to the retail sales as a whole, the rapid growth of this industry is likely to continue in the following years. Therefore, It would not be unreasonable to assume that, in a society where consumers have exceptional high expectation regarding service and convenience, online shopping will become particularly important for food retail sales. Most likely, online shopping will take an increasing market share from department stores as sales number for this industry already seem to be in decline.

E-Commerce Sales B2C								
	EC Sales (B2C)		*EC Sale of Goods*		*EC Food & Beverages*			
	total (trillion)	*% Retail[I]*	*total (billion)*	*% EC Sales[II]*	*total (billion)*	*% of EC Goods[III]*	*% EC Sales[IV]*	*% Retail F&B[V]*
2016	¥15,1	10.8%	¥8.004,3	52,9%	¥1.450,3	18,1%	9,6%	3,3%
2017	¥16,5	11.6%	¥8.600,1	52,1%	¥1.557,9	18,1%	9,4%	3,5%
YOY	9,5%		7,4%		7,4%			

[I] EC sales in percentage of total overall retail sales.
[II] EC sale of goods as percentage of total EC sales.
[III] EC Food & Beverages sales as percentage of EC sale of goods.
[IV] EC Food & Beverages sales as percentage of EC Sale of Goods.
[V] EC Food & Beverages sales as percentage of total retail sale of Food & Beverages (F&B).

Table 55: EC sales B2C, 2016-2017. Based on data by: METI[157]

[XXVIII] Using the 2017 annual average exchange rate (€1/¥126,71). Source: ECB[12]

6. Conclusions & Recommendations

The here following chapter will finalise this report with concise conclusions based on the findings from the analyses and research. Subsequently, based on the findings several recommendations will be made with regards to EU businesses aspiring entry of the Japanese market, as well as EU policy makers responsible for facilitating trade with Japan.

6.1 In Conclusion

The findings of the market analysis give a clear picture of the Japanese dairy industry. The declining production rate of the Japanese dairy farms leaves the country with an increasing dependency on imports to fulfil its domestic demands. Even without the short supply of available milk, domestic dairy manufacturers would have a hard time competing for price on anything other than fresh products like drinking milk or yoghurt due to the relatively high production costs. This is besides the fact that the price paid for milk is much higher for the production of drinking milk than it is for cheese, making that milk farmers choose delivery to the former, over delivery to the latter. This does mean however, that at least for the foreseeable future, the Japanese market for dairy products such as cheese, butter, etc. will rely on foreign imports.

The demand for the dairy products covered in this report show promising developments. The cheese consumption in recent years in particular has shown a great increase in overall consumption as well as average per capita consumption indicating a growing popularity. Butter consumption on the other hand did not show any increase, however, as explained this was most likely due to the global shortage, as well as interference by ALIC. The analysis of the industries for which butter is most generally used, gave no reason to expect any (drastic) decrease in the actual demand. Something similar can be said for the SMP market in Japan. While the per capita consumption in recent years has shown a marginal decrease, it is unlikely to expect a strong downwards trend in the coming years. Products that have SMP as an ingredient show positive sales numbers (e.g., yoghurt, ice cream, bakery and confectionary). Whey (a common ingredient used in similar products as butter and SMP) saw a significant increase in imports in most recent years. As whey is a by-product of cheese production, it would be safe to assume Japan to stay dependent on foreign imports for the foreseeable future. The same goes for lactose, of which Japan has virtually no domestic production. Because lactose is used for pharmaceutical applications for which there is no obvious substitution, the demand is likely to remain consistent.

The analysis of consumer motives, priorities and attitudes showed that, while there is a certain bias towards foreign food products, Japanese consumers are generally positive towards the Western diet (and its ingredients). The attitude towards cheese seems to be particularly positive. A side note here is that while the overall attitude was positive, Western dishes do generally not have a particularly healthy image. Healthiness is, according to the priority and motive studies, particularly important for the Japanese consumer when buying food items. If this proves a continuing trend, this could potentially harm sales of foods that incorporate dairy products (e.g., pizza, bakery and confectionary). However, another main consumer priority when buying food items (and dairy in particular) is price, which bodes well for EU exporters.

The Economic Partnership Agreement between Japan and the EU covers a wide variety of dairy exports, and offers benefits to most. While the effects for certain commodities like butter and SMP are hard to foresee, exports to Japan are likely to gain from the agreement in one way or another, as it will offer more than slashed tariffs alone. However cheese exporters from the EU are most likely to benefit from the EPA due to the reduced or eliminated tariffs, new quotas, and geographical indications. The EPA will (after taking action) allow European exporters to be increasingly price competitive, and improve an already strong position in the Japanese market for imported dairy products.

6.2 Recommendations

Due to the difference in nature, the recommendations will be separated by those that apply to EU businesses and those that apply to EU policy makers. This being said, some of the recommendations may apply to either one.

6.2.1 Recommendations for EU Exporters

Use the EPA as a 'selling point'. Particularly for market where there is a lot of competition from non-EU suppliers, it would make sense to emphasise the benefits of the agreement for the buying party in order to get a competitive advantage. Make sure to be well aware of all the EPA has to offer, for yourself, as well as for the Japanese buyer. While the initial tariff reductions the first years after the EPA has taken action might be marginal and seems as if it won't give a significant advantage, keep in mind that Japanese suppliers are generally interested in long-term relationships. Therefore, address the benefits over time offered by tariffs being lowered or eliminated and the quota quantities being increased.

Emphasise the quality and safety of your products. Any party exporting to Japan has to be fully aware of the importance of quality and (particularly) safety to the Japanese consumer when it comes to food. Any ambiguity in this regard won't be tolerated, not even as a trade-off for a lower price. Also, while it might not be something that necessarily affects all European exporters, one should be aware of a certain bias among the Japanese consumer concerning the safety and quality of imported products. This means that, in case of Japan, an exporter would be wise to emphasise the quality and safety of their products. At the very least the exporter should be fully (or as much as reasonably possible) transparent in their production process. Also, when applicable, make sure to accentuate any certifications or quality marks of your products.

Invest in traceability. With the concern for safety of food products (particularly when they are imported) it would be wise to invest in an effective traceability system. This will create more trust in the buying party as they have a better understanding of the origin of the products (and

its ingredients). Also, in case certain events of disease outbreaks or contaminations, proper traceability can help to warrant the products safety.

Educate on the use of products that are unknown in Japan. When exporting certain food items to Japan that the consumer is not (yet) familiar with, make sure to supply sufficient information on usage. Although interested in new culinary experiences, consumers tent to shy away from products of which they are not sure how to use/consume. Therefore, not only should the packaging need to give sufficient information on usage, other ways of educating like demonstrations are effective tools to create familiarity among consumers as well. Also, consider coverage in cooking shows, magazines or websites in order to create familiarity with your product.

Be willing to adapt your product to the local market. When exporting to Japan, understand that it is very likely that (in case of consumer products) not only tastes and preferences differ from the home market, usage of the product might be different as well. Therefore, do not expect your product to be sold in its original form, with regards to packaging, size or quantity. It would be wise to confer with the Japanese buyer to ensure your product fits the market as well as possible.

Be flexible and patient when building a business relationship. As stated in the previous recommendation, some flexibility is required when building a relationship with a party from another country. In case of Japan, exporters should understand that Japanese buyers require more time to come to a decision than would be the case in most European countries. This is part of building mutual trust in order to ensure a prosperous, long term relationship. This flexibility, besides patience, is also about cooperation and transparency. One should be willing to supply the Japanese party with detailed information and, possibly, make changes to the respective product.

Collaborate with the Japanese buyer/importer. Much in line with the recommendations made before, it would be wise to initiate a close collaboration with the Japanese partner in regards to, e.g., development of products or marketing activities. Working closely together builds trust and shows commitment to investing in a long term partnership; also, it will ensure your products will better fit the Japanese market.

Be creative in finding distribution channels. While it makes sense to give preference to larger retailers or importers, it would be a miss to overlook other options. Depending on the product, smaller specialised importers might be a viable option. Also, as was shown in chapter 6, the e-commerce market is taking over a large share of retail market and would therefore be an obvious channel to consider.

Participate in trade shows. As was evident from the Japanese buyer interview analysis in chapter 5, Japanese importers often visit trade shows in order to find new products. These event are a good opportunity for EU exporters (or any foreign food exporter for that matter), to highlight their products and educate on how they are used. Trade shows also allow for highly valued in-

person contact and an opportunity to answer questions or address possible concerns. See Appendix B for a list of suggested trade fairs.

Capitalise on the trend of health awareness. The, previously mentioned, health awareness among consumers, seems to be a trend that can be expected to continue in coming years. European food exporters can use this trend by addressing health benefits of their products, or, develop new products that specifically address this market (e.g., products with FOSHU approval). In case of the last mentioned, collaboration with a Japanese partner would be advised.

6.2.2 Recommendations for EU Policy Makers

Promote the benefits of the EPA among EU businesses (push). In order to get the most use out of the agreement, exporters from the EU should be made fully aware of what the EPA to offer. Particularly among businesses that do not already export to Japan, efforts to inform and educate will be crucial to ensure the agreement is used to its full potential. Particularly for smaller businesses, a thorough understanding of the EPA can help them in strengthening their position in competition with non-EU businesses.

Promote the benefits of the EPA among Japanese importers (pull). The importance of a similar awareness among the Japanese importing site is something that should not be overlooked. As the importers are the direct beneficiaries from the reduced tariffs and increased quotas, they should be made aware of how they will benefit from trade with EU exporters over non-EU ones. Opposed to the previous recommendation, this would be similar to a "pull" strategy, creating a larger demand for EU products among the Japanese importers. While informing Japanese businesses about the agreement might be regarded as a task for the Japanese government, considering the importance for EU businesses, it would be highly recommended to take a pro-active role in this effort.

Promote the quality and safety of EU products. As covered previously in this chapter, the Japanese have extremely high demands for safety and quality, therefore, the image of EU products in these regards is very important. While most of the responsibility in safeguarding this image lies with the industry, the EU could play a coordinating role in this effort. This could particularly benefit EU nations which are unknown/less known in Japan.

Monitor the usage of quotas (exclusive or general). In order to ensure the new quotas offered by the EPA (as well as the exciting ones) are used to their full potential, it could help monitoring the quantities imported within and outside the quotas. This information can help pinpointing possible bottlenecks or barriers that require addressing.

Monitor the consumer prices to see if the lower tariffs benefit the end consumer. Similar to the previous recommendation, it would be wise to monitor consumer prices after the EPA takes action to see to what degree the slashed tariffs result in lower retail prices. Any discrepancy in this regard might require further investigation and addressing.

Offer special assistance to small businesses. While the tariff and quota matters alone can be quite overwhelming, smaller businesses might be deterred from trade with Japan due to the required administrative and regulatory compliance. Assistance in this matter could drastically improve the accessibility of the Japanese market for European SMEs.

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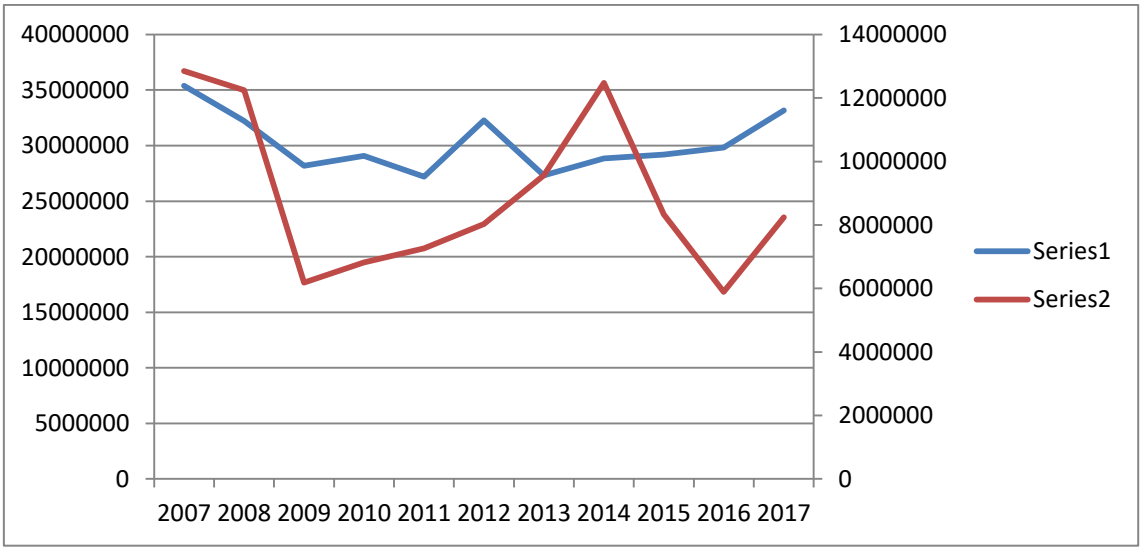
Appendix

Appendix A: Conversion Factor for Milk Equivalent for each tariff line.

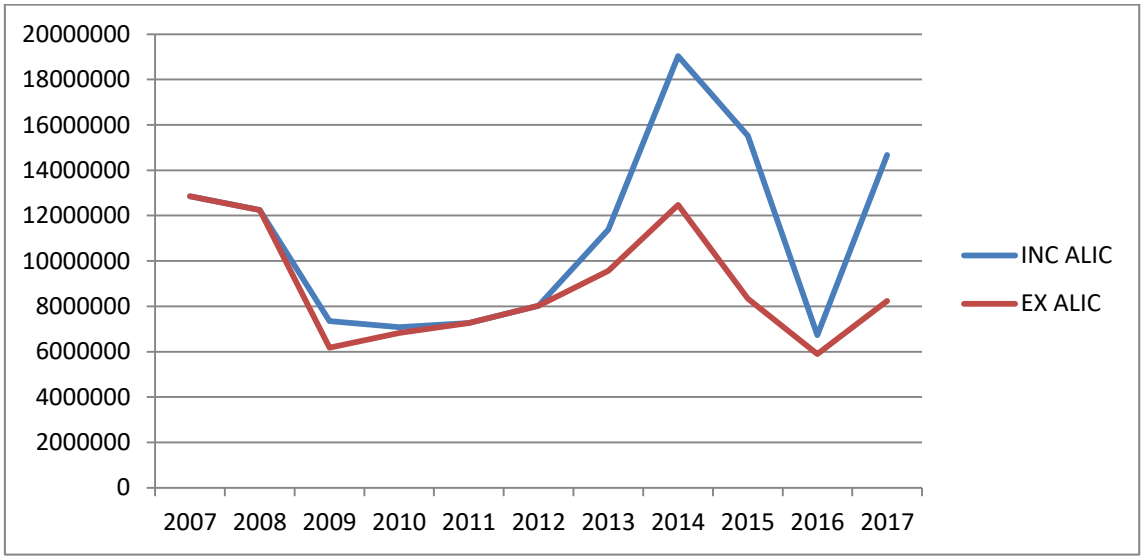
Tariff line	Conversion factor
040210.129	6.48
040210.212	6.48
040210.229	6.48
040221.119	8.9
040221.129	13.43
040221.212	6.84
040221.229	6.84
040229.119	8.9
040229.129	13.43
040229.291	6.84
040299.129	6.69
040299.290	3.65
040390.113	6.48
040390.123	8.57
040390.133	13.43
040510.129	12.34
040510.229	15.05
040520.090	12.34
040590.190	12.34
040590.229	15.05

Source[63]

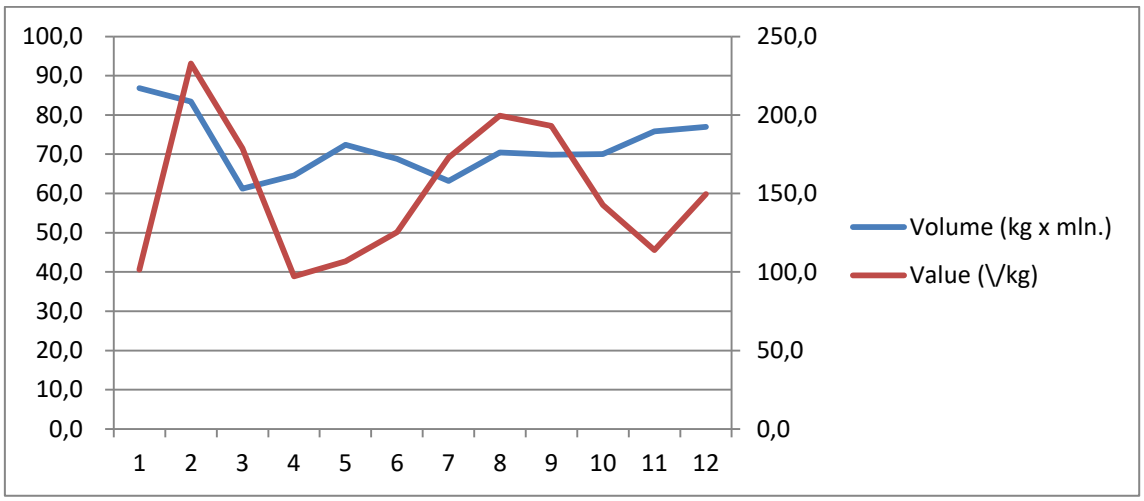
Appendix B: SMP imports over time, inclusive/exclusive ALIC imports (in kg)



Appendix C: SMP imports over time, inclusive/exclusive ALIC imports (in ¥)



Appendix D: Lactose import volume and value comparison



Appendix E: Food (or Food related) Trade Fairs in Japan

Name/Organiser & Website(s)
FOODEX Japan **http://www3.jma.or.jp/foodex/en/index.html**
SUPERMARKET TRADE SHOW (SMTS) **http://www.smts.jp/en/index.html**
HCJ - **Hoteres Japan** - **Caterex Japan**

- **Japan Food Service Equipment Show**

http://www.jma.or.jp/hcj/eng/exhibit/index.html

WINE AND GOURMET JAPAN
http://www.wineandgourmetjapan.com/

FOOD SERVICE BUSINESS WEEK / KANSAI GAISHOKU BUSINESS WEEK
1) http://gaishokubusiness.jp/english/
2) http://www.gaishokubusiness.jp/
3) http://www.k-gaishokubusiness.jp/

P&B JAPAN (Pastries and Bakery)
http://www.bakery-expo.com/2018/en/outline/index.html

MOBAC SHOW (MACHINERY, MATERIALS, MARKETING OF BAKERY AND CONFECTIONERY)
http://www.mobacshow.com/index_e.html

FABEX (The world Food And Beverage Great Expo and Dessert Sweets & Bakery Festival)
http://en.fabex.jp/

TOKYO CAFÉ SHOW
http://cafeshow.jp/en/

Hi-JAPAN
- **HI-JAPAN**
- **FIT-JAPAN /**
- **S-Tec Japan**

http://www.hijapan.info/eng/

MEDI-CARE FOOD EXPO
https://care-show.com/medicarefoods/

TOKYO HEALTH INDUSTRY SHOW
http://www.this.ne.jp/eng/

SPORTS FOOD EXPO
http://www.hfs-expo.com/

IZAKAYA TRADE SHOW
http://izakaya-japan.com/

INTERPHEX (pharmaceutical and cosmetics trade show)
http://www.interphex.jp/en/