NORWEGIAN
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THE MACKEREL MARKET IN JAPAN 2018

A REPORT FOR THE NORWEGIAN SEAFOOD COUNCIL

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1 INTRODUCTION

In this section, we outline the project background, the objectives of the project, and the methodology used to achieve the objectives.

1.1 Project Background

Japan is Norway's largest market for mackerel. In 2015, the last year for a full market assessment, Promar estimated that Norway supplied approximately 95% of Japan's imported mackerel. The table below summarizes the breakdown of the market.

Table 1 Norwegian Mackerel in Japan, 2015

Estimated sources of Norwegian mackerel supplied to Japan in 2015	
Frozen whole imported directly from Norway	72,000 (MT)
Fillets	76,000 (MT)
Other processed mackerel in China, supplied by Norway	27,000 (MT)
Total	**175,000 (MT)**

**All Volume round to the nearest 1,000*
Source: 2017 update on Japan's Mackerel Market Segmentation Study by Promar Consulting

Overall, 2015 was a good year for the Norwegian mackerel in Japan. Norway captured 50% of the market share. Also, in retail, Norway captured close to 70% of the salted mackerel share. The domestic catch level was at a low level, allowing Norwegian mackerel to have strong presence in the market.

1.2 Project Objectives

The objectives of this study are outlined below.

1. **To update data regarding the mackerel supply in Japan with a focus on:**

- Total mackerel consumption by volume and its fluctuations over the past 3 years
- Domestic production trends and segmentation and any impact on the import market
- The position of the key market players and their recent strategies in Japan
- Details of the main distribution channels, including retail, HRI sector and other possible segments
- Estimates of the shares of each mackerel segment (fresh, frozen, salted, dried, etc.)

- Recent trends and happenings in the market over the past 3 years

2. **To analyze the competitive position of Norwegian mackerel in the market and in the key product segments (e.g. salted):**

- Estimate Norway's share in each product segment - update the 2015 estimates and calculations
- Outline and analyze any specific trends and occurrences in the market over the past 3 years

3. **To examine the potential for further market growth:**

- For the total mackerel market
- For Norwegian mackerel products

1.3 Methodology

1.3.1 Desktop Research

Desktop research was the primary method through which we updated the basic indicators for the Japanese mackerel market. This update was a four-step process:

Steps	Details
Step 1	To update Japan's total mackerel supply statistics up to 2017 using Promar's past market calculation methods
Step 2	To calculate the overall market share of Norwegian and other imported mackerel, as well as Japanese domestic *ma-saba* (Scomber Japonicus, also known as chub mackerel), and *goma-saba (Scomber Australasicus, also known as blue mackerel)*.
Step 3	To calculate the volume of each segment of the Japanese mackerel market: - Fresh mackerel - Seasoned mackerel including: 1) salted mackerel and 2) other seasoned mackerel (vinegar-pickled mackerel shime-saba, mackerel marinated in miso paste or sake lees and dried mackerel).
Step 4	To estimate the Norwegian share in the above product segments

The following will briefly touch upon the information sources that we used in order to calculate mackerel supply to the market.

- **Step 1 & 2: To update Japan's total mackerel supply and calculate Norway's share**

Through earlier studies for the NSC, Promar developed a method to calculate the total mackerel supply (whole fish equivalent: WFE) in Japan and Norway's share within it. In order to update Japan's total mackerel supply and calculate Norwegian share, we used import statistics from Japan Customs, as well as domestic catch numbers from the Japan Fishing Association.

- **Step 3: To calculate the volume of each product segment of the Japanese mackerel market**

Following the overall market calculations, this study used official statistics to determine the size of salted mackerel production (the principal form in which Norwegian mackerel is consumed) and quantified the size of other product segments.

(1) Determine the size of salted mackerel production through official statistics

Salted mackerel is by far the most important product segment in the Japanese market and determining the volume is straightforward. The Ministry of Agriculture, Forestry and Fisheries (MAFF) maintains annual production data for salted mackerel and this represents the entire supply of salted mackerel in the Japanese market.

(2) Determine the size of other product segments

After salted, official statistics on other mackerel segments are more difficult to obtain, and so far, we haven't been able to find any official data for other product segments. As a starting point we would subtract salted production from the total supply in the market to get a volume from which we can then begin calculating other product forms. There are some methods available for calculating baseline estimates. First, for fresh consumption, we can project the National Bureau of Statistics household consumption data across the entire population, a method we've used for other purposes in previous reports and which has proven effective.

In order to size the *Other seasoned mackerel* and *dried mackerel* segment we relied mainly on trade interviews as there is very little statistical data to start with. Through trade interviews, we obtained reliable figures for the *other seasoned mackerel (*seasoned mackerel such as *miso* and *mirin* marinated mackerel*)* and *dried mackerel segments.*

- **Step 4: To estimate Norway's share in the above product segments**

We combined desktop research with an aggressive interviewing program and interviewed a total of 10 industry contacts for this project. Interview contacts for this project were gathered from a list provided by the NSC, and included importers and retailers of mackerel throughout Japan.

2 THE MACKEREL MARKET IN JAPAN

In this section, we analyze the Japanese mackerel market composition by outlining the latest trends related to the domestic supply, as well as mackerel imports. Finally, we provide a calculation for the total mackerel supply in Japan highlighting the Norwegian position in it.

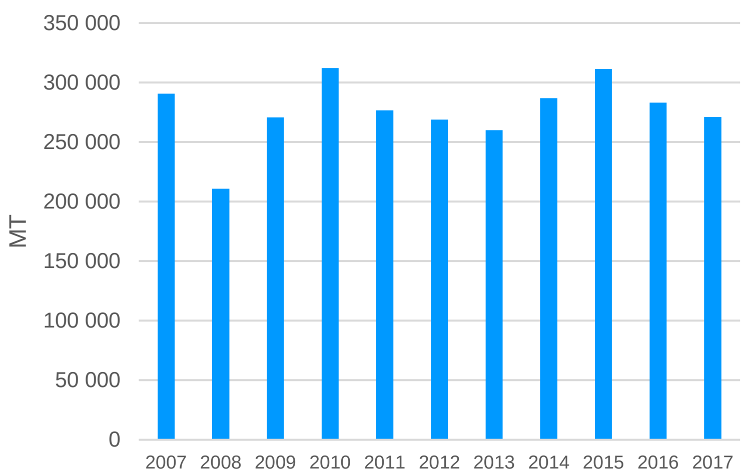
2.1 Mackerel Consumption

Mackerel remains a popular fish in Japan and the country continues to consume large volumes of mackerel.

In 2017, mackerel consumption was 271,000 MT. Despite the growing trend in imports during the second half of the year, Japanese consumption saw a slight decline from the previous year. This is because a large portion of the Norwegian mackerel purchased in late 2017 was sold in 2018. The traders we interviewed estimated that it takes about 3 months from purchasing, transporting, processing to selling the product in retail. The volume of Japanese mackerel for human consumption in the market declined slightly from 283,000 MT in 2016 to 271,000 MT in 2017.

In 2017, the catch volume of domestic mackerel (461,938 MT) in the market recorded the lowest levels since

Figure 1 Total mackerel supply in Japan (WFE)



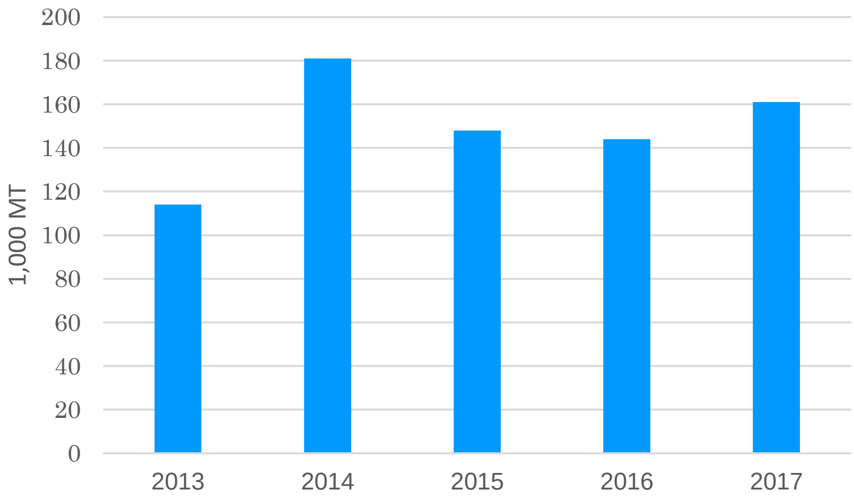
Total Volume in 2017: 271,000 MT

Source: Japan Customs, Promar Consulting Interview/Calculation, Seafood Data Powerbook

2013 (385,532 MT). However, not only the catch was lower than average years, the export volume were at a very high level (231,963 MT).

According to our findings, 2017 seems as a promising year for imported mackerel in Japan. If we look at the Norwegian mackerel's export to Japan, the Netherlands, China, Vietnam, Indonesia and Thailand - many of these countries are designated for 3rd country processing and the products are later shipped to Japan, the export volume is at the high level of 161,000 MT (the second highest level in the past five years).

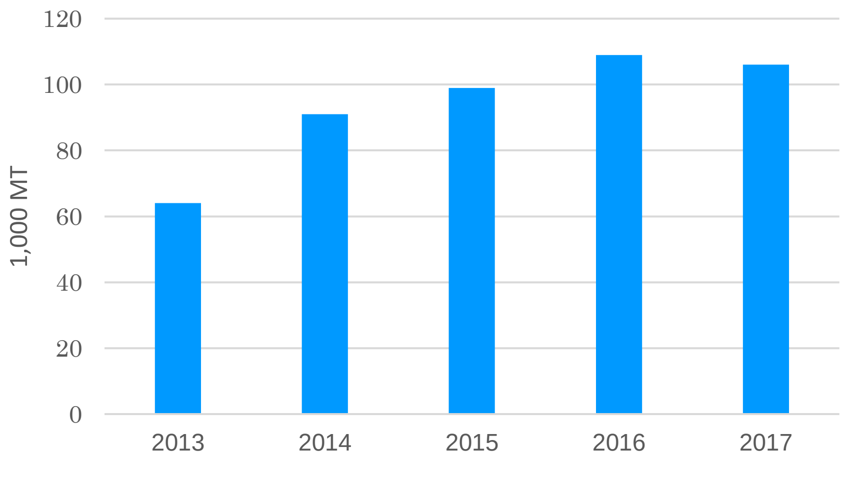
Figure 2 Norwegian Mackerel Supply (Export) to Japan (estimated)



Note: We assume that Norway's export to China (85%) Netherlands (70%), Vietnam (90%), Indonesia (90%), Thailand (70%) are later shipped to Japan.
Source: Statistics Norway

In addition, our study discovered that currently the mackerel storage is reportedly at a high level as well. The increased storage volume was a result from some importers capitalizing the chance of buying Norwegian mackerel at a low import price in recent years. If the mackerel price is higher than their expectation, they will decrease their purchase in the 2018/2019 season, but still have sufficient stock in the storage.

Figure 3 Mackerel Cold Storage Volume (2013-2017)

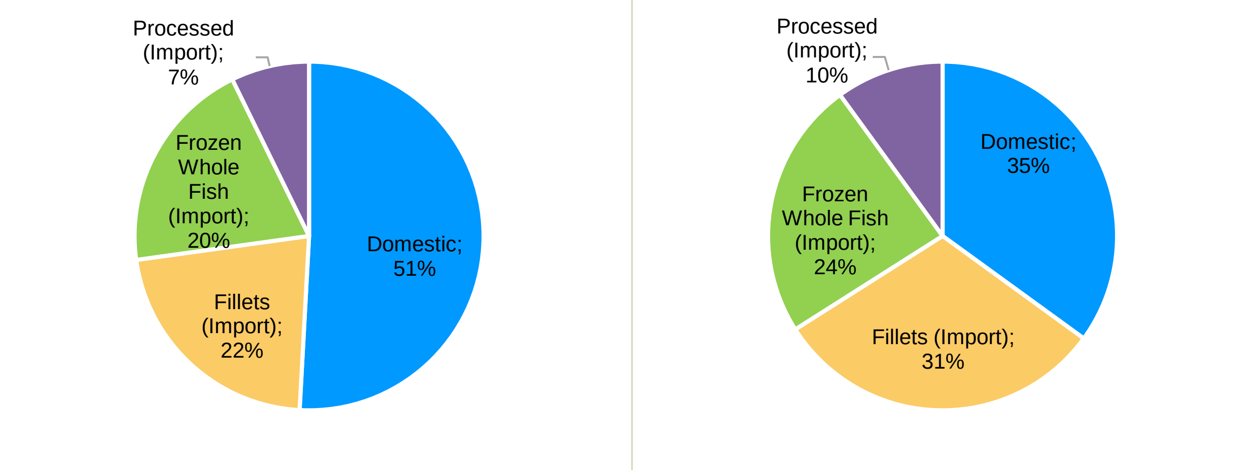


Source: Ministry of Agriculture, Forestry and Fisheries of Japan

The composition of the market has changed from 2014 to 2017. Domestic mackerel accounted has dropped from 51% in 2014 to 35% in 2017. Imported mackerel, both round and processed products, have increased in shares.

Figure 4 Market Share of Mackerel by Processing Type

2014	2017
Volume 287, 000 MT	**Volume 271,000 MT**

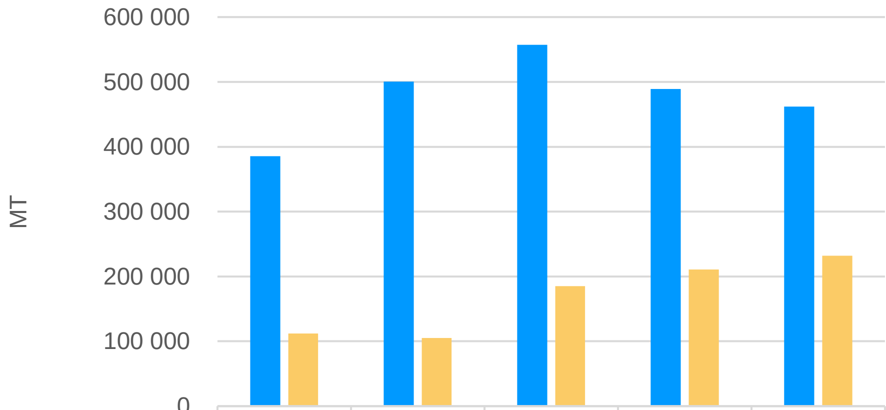


Source: Promar Consulting

2.2 Domestic Mackerel Catch

As seen in the chart below, Japan’s domestic catch has been in a gradual decline over the last three years.

Figure 5 Japan's Domestic Catch Trend



	2013	2014	2015	2016	2017
Domestic Catch	385 532	500 518	557 285	489 100	461 938
Export	112 163	105 057	185 267	210 604	231 963

Source: MAFF, Promar Consulting

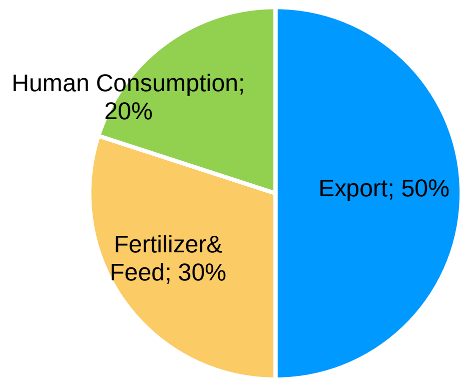
In 2015, the mackerel catch was 557,000 MT which was the highest level since 2006 when the catch totaled 652,000 MT. Regardless of the large catch in 2015, reportedly most of the fish were small and therefore not suited for retail pack products. Instead, the small-sized fish were mainly exported or used as feed for aquaculture fisheries. This trend continues and as a result the export volume for Japanese mackerel were at a high level from 2015 to 2017.

Japan's domestic mackerel catch has four main end uses: for human consumption, for fertilizer and feed, for export and for canning. In 2017, mackerel for human consumption was approximately 20% of the catch. Mackerel for human consumption is assessed as the segment that potentially is in competition with Norwegian mackerel imported into Japan.

Export account for the largest share with 50%. In 2017. The second largest segment was mackerel for feed and fertilizer which accounted for 30%.

The pie graph on the right provides a breakdown of the amount of each end use for 2017.

Figure 6 Domestic Mackerel End Use Share (2017)



Total Domestic Catch: 462,000 MT

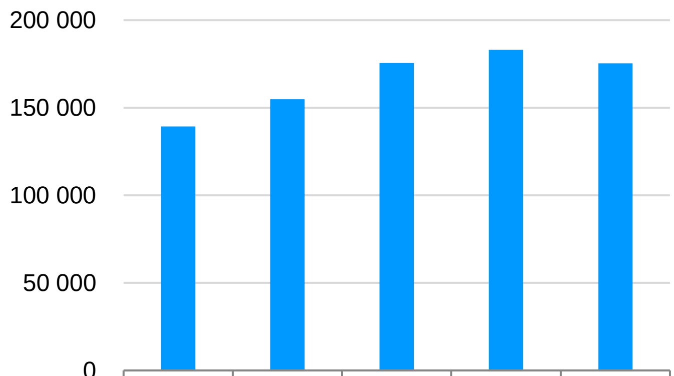
Source: MAFF, Promar Consulting, Seafood Data Powerbook

The Japanese catch consists of Goma-saba (Blue mackerel, *Scomber Australasicus*) or the large-sized Ma-saba (Chub mackerel, *Scomber Japonicus*). Of the 462,000 MT of mackerel caught in 2017 only about 93,000 MT were Ma-saba (Chub mackerel) for human consumption. Due to its small size and low-fat content, Goma-saba is primarily used for fertilizer and feed. Goma-saba is generally considered not suitable for human consumption in Japan, however, some Goma-saba is used for canning for human consumption.

2.2.1 Overall Imports Trend

The total import volume of mackerel in 2017 was at a high level of 175,000 MT, following the same trend in 2015 and 2016, in which the total volume was 176,000 MT and 183,000 MT respectively. The past three years have been the highest volumes in the past decade.

Figure 7 Total Mackerel Import Volume (WFE) 2013-2017



	2013	2014	2015	2016	2017
Total	139 238	154 878	175 539	183 115	175 379

Source: Japan Customs

2.2.2 Mackerel Imports by Type

Imported mackerel is brought into Japan in a number of forms, including **frozen fillets, frozen round (whole) fish, and processed mackerel products** like boneless mackerel or pre-cooked mackerel. In general, fillets are the most common type of mackerel import, followed by round fish and then processed products. Other than the processed mackerel products, most of the imports will eventually end up as salted mackerel fillets. Some importers estimated that as much as 70 to 80% of the mackerel imported into Japan were used for salted fillets.

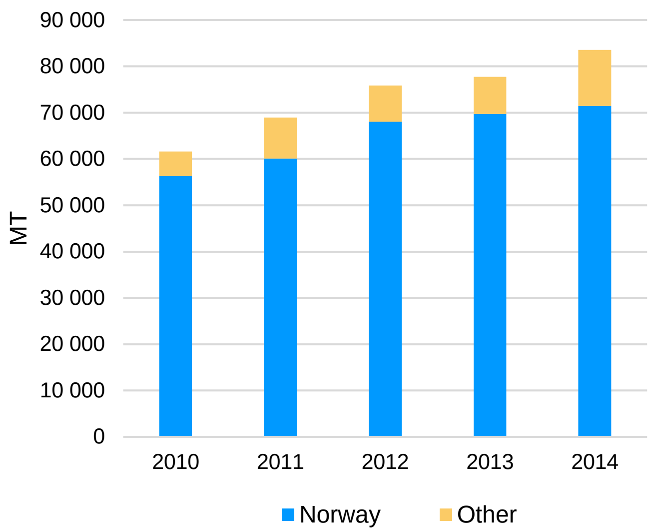
Frozen Fillets

In 2017, Japan imported 57,000 MT of frozen fillets, or 84,000 MT in WFE. The volume of frozen fillets in whole fish equivalent is more than frozen round fish (63,000 MT).

In recent years, boneless mackerel fillets have been increasing. An estimated 30% of the imported fillets are boneless mackerel, while 70% are bone-in.

Of the total imported fillets, Norway accounted for 85% in 2017, the other countries of origin include Iceland and Ireland.

Figure 8 Frozen Fillet Import Volumes (WFE)



Of imported fillets, approximately 30% were boneless in 2017.

Source: Japan Customs, Promar estimates

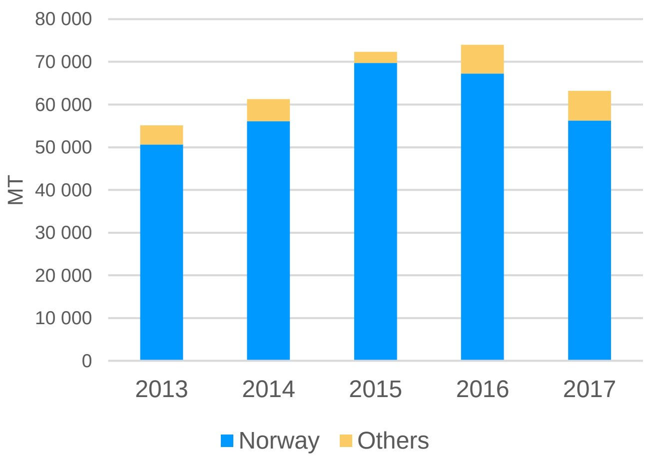
The following are the key types of processed fillets available:

- 3-slice bone-on fillets cuts: the majority of products
- 3-slice boneless fillet cuts: the strongest growing product
- 2-slice center cut fillets
- 4-slice “kirimi” cuts.

Frozen Round

In 2017, a total of 63,000 MT of frozen round mackerel was imported to Japan. Norwegian mackerel continue to dominate this category with approximately 90% share in 2017. Most of the frozen round mackerel imported into Japan are used for salted fillets processing.

Figure 9 Frozen Round Import Volumes



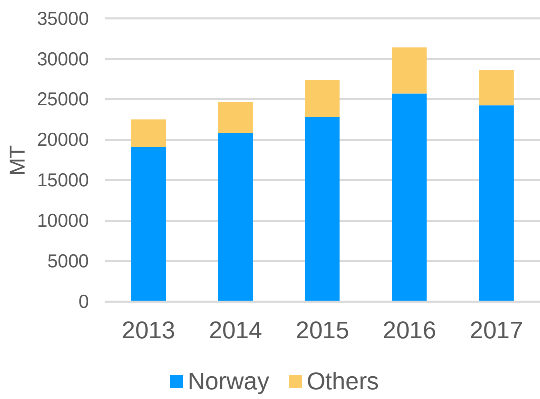
Source: Japan Customs

Processed Mackerel

Imports of more heavily processed mackerel products, such as salted mackerel, miso, mirin, shime (vinegar), pre-cooked mackerel have been increasing since 2013 and peaked in 2016. In 2017, the total volume of 29,000 MT was the second highest level in the past decade.

Norway continues to be the dominant supplier for the 3rd country processed fillets category. In 2017, Norway has approximately 85% of the volume in this category.

Figure 10 Processed Imports by Country (WFE)



Source: Japan Customs, Promar estimates

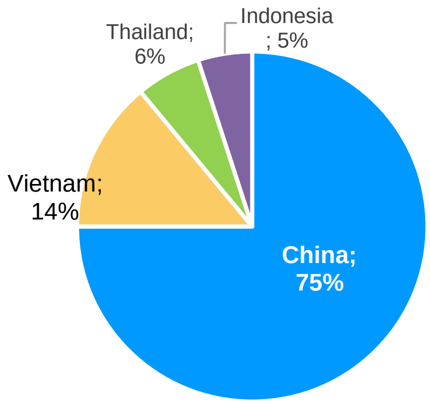
2.2.3 Third Country Processing

Interviews with importers have confirmed that most of processed mackerel imported to Japan continue to be processed in China. According to trade data and interviews, around 75% of the processed mackerel imports are processed in China and the remaining 25% are processed in Thailand, Vietnam, and Indonesia. There is also a very small amount processed in Myanmar and the Philippines, but that is less than 1% of the volume.

China remains the most popular country for mackerel processing. While the labor cost has been rising in China in the past years, with the exception of heavy processing such as boneless mackerel, the final processing cost is still cheaper there compared to other countries because of the large volumes that Chinese processing companies can handle. China has established itself as the preferred country for mackerel processing by Japanese importers thanks to its streamlined processing workflows and well-maintained relationships between processors and Japanese importers.

One area where China is not cost competitive with Vietnam or Indonesia is in the processing of boneless fillets. This kind of processing is highly labor intensive: bones must be removed one by one manually, and in this case China's advantages in processing plant efficiency which is the main reason for low overall costs, is less relevant. However, some Japanese firms still work with Chinese processors on boneless mackerel processing because they do not have network working with other processing countries.

Figure 11 Third Country Processing Share, 2017



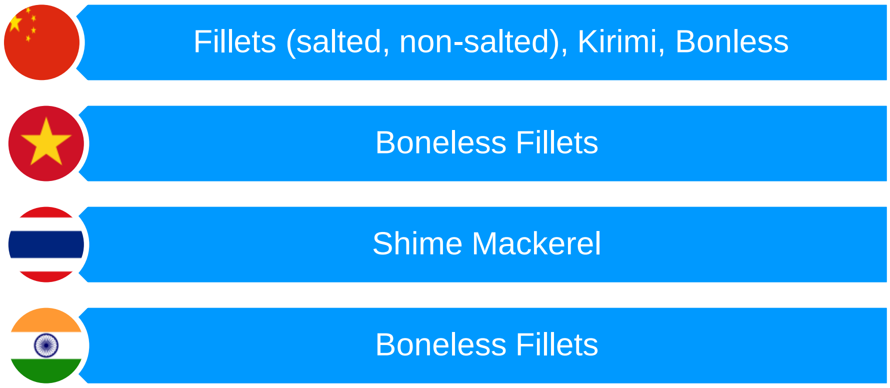
Norway's Export to 3rd Country Processing (2017): 112,000 MT

Source: 2017 Seafood Data Powerbook, Promar Consulting

Although China is not cost competitive for the boneless mackerel processing, it is still able to do the simpler type of processing cost effectively at a lower price compared to Thailand, Vietnam and other countries, so the total cost of processing the entire shipment is still low.

Vietnam and Indonesia are popular processing destinations when a large portion of the mackerel shipment is to be processed into boneless fillets. These two countries are preferred for processing for reasons other than cost. Thailand is also a processing destination for some companies. One importer who processes Norwegian mackerel into Shime-Saba for food service distribution in Japan chose Thailand for this processing. Reportedly, the company's customers were sensitive to concerns over food safety and would have been resistant to purchasing Shime-saba that had been processed in China. Instead, they are willing to pay higher price for Thailand processed products which have better image in terms of food safety.

Figure 12 Main Processing Products by Country

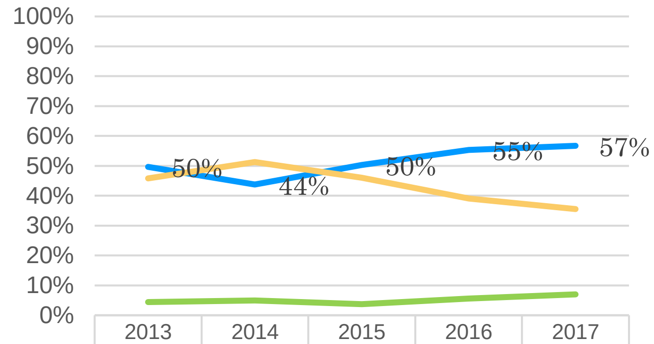


2.3 Norway's Competitive Position in Japan

2.3.1 Overall Position in the Market

When Promar last surveyed the Japanese mackerel market in 2015, Norway was the leading supplier of mackerel to the Japanese market accounting for close to 50% of all mackerel imports, and it remains the same today. In 2017, Norway accounted for 57%, the highest share in recent years.

Figure 13 Norwegian Supply and Market Share



	2013	2014	2015	2016	2017
Norway	50%	44%	50%	55%	57%
Domestic	46%	51%	46%	39%	36%
Others	4%	5%	4%	6%	7%

Source: Promar Consulting, Japan Customs, 2017 Seafood Data Powerbook

Norwegian mackerel remains the most preferred mackerel in Japan largely because its reputation for high freshness and quality, good fat content and consistency of quality and supply.

While the primary end use for Norwegian mackerel is salted fillets, it is also widely used in pre-cooked mackerel products, miso and mirin flavored fillets and boneless mackerel fillets. Some importers said that it was unsuitable for shime mackerel – mackerel soaked in vinegar and used as a sushi topping.

Norwegian mackerel is not suited for shime mackerel because:

1) The fat content is too high – for shime mackerel, lower fat content matches better with the vinegar taste

2) Norwegian mackerel's deep "tiger stripe" on the fish skin does not match well visually with what Japanese perceive as shime mackerel.

There is a large importer that processed over a thousand tons of Norwegian mackerel in Thailand into shime-saba annually. Most of this product is sold in lower-end food service at a competitive price.

3 MACKEREL DISTRIBUTION

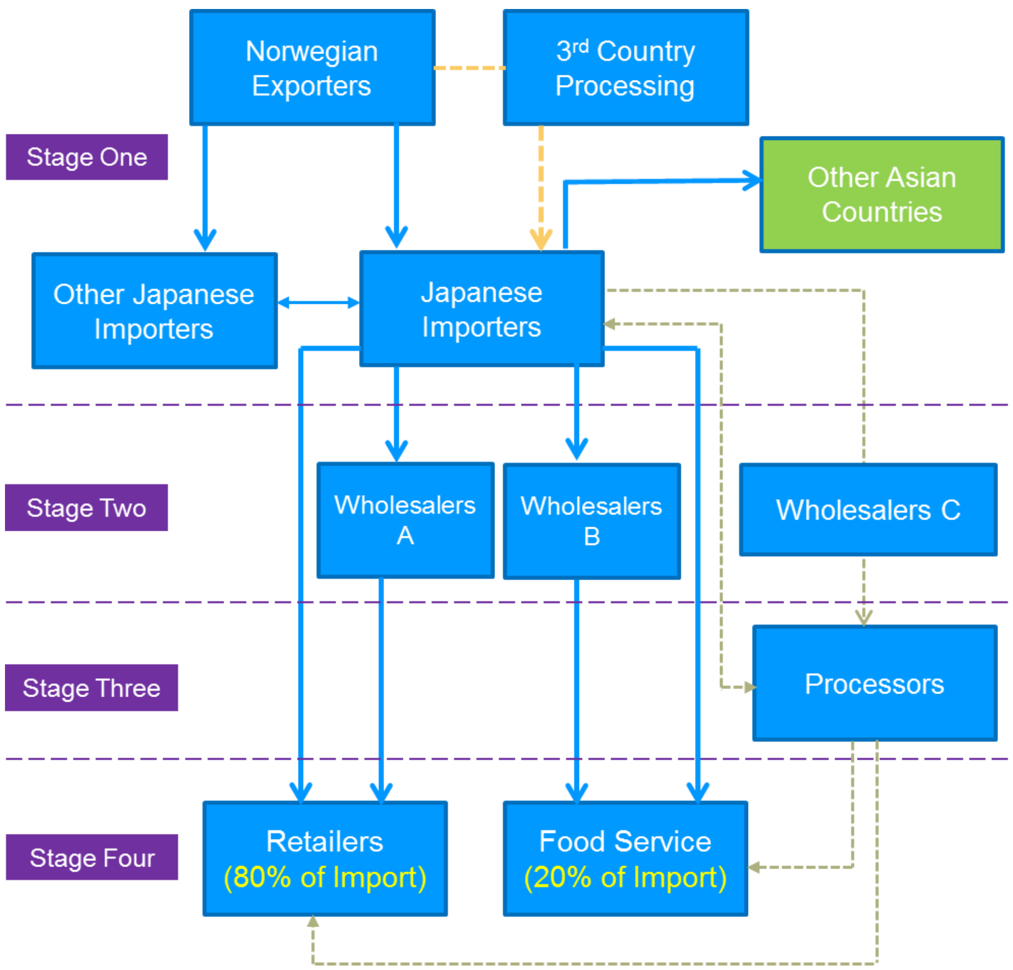
In this section, we analyze the key channels in which Norwegian mackerel is distributed in Japan, and the role of the key players in the distribution flow.

3.1 Distribution Flow of Norwegian Mackerel

The distribution flow of imported Norwegian mackerel in Japan is rather complicated and unique. For instance, wholesalers continue to play a key role in the distribution. Within the entire distribution flow, there are 3rd countries processing imports, selling to other Asian countries (e.g. Korea and Taiwan), buying and selling between importers, as well as buy-backs by importers from processors, etc.

The whole distribution flow of Norwegian mackerel can be divided into 4 main stages which are illustrated in the chart below.

Figure 14 Distribution of Norwegian Mackerel in Japan



Notes: 1) The yellow line in the 1st stage indicates that the round mackerel that are shipped from Norway to 3rd country processing are for the Japanese market. 2) The mackerel sold to "Other Asian Countries" by Japanese exports do not enter the Japanese port, but are sent directly from either Norway or Port of Amsterdam to the designated country/countries.

Source: Promar Consulting Interviews

1st Stage - Importers

1) Norwegian mackerel enter the Japanese market through two sources:
    a) Round whole mackerel are directly imported to Japan. Approximately 37% of the Norwegian mackerel is imported directly to Japan.
    b) Round whole mackerel are sent to a 3rd country for processing. Approximately 62% (in whole fish volume) of the Norwegian mackerel is sent to a 3rd country for processing before entering the Japanese market.
    c) In addition, some Japanese importers also sell round mackerel to other Asian countries like Taiwan and Korea. These products will be consumed in the respective markets and will not be re-directed to Japan.
2) All whole fish and processed products are handled by importers in the upper stream. There are no large retailers that control the whole chain.
3) Importers also buy from each other at times. This happens when:
    a) Importers run out of whole round mackerel stock and need immediate supply for their clients. They will make calls to see if other importers have extra supply for sale.
    b) The department in charge of processed mackerel at Company A needs more raw material to deliver to processors. However, the department in charge of importing whole round mackerel within Company A does not have extra supply. In this case, the processed mackerel department at Company A will have to source raw material from Company B.

In the past, the inter-company buying and selling of Norwegian mackerel was quite common in Japan. Over the years, many companies which did not have relationship with Norwegian suppliers have established their own sourcing routes, hence currently the volume of buying between importers is low.

2nd Stage - Wholesalers

1) Before moving down to processors, retailers and the HRI sector, most of the mackerel volumes are handled by wholesalers. Wholesalers’ greatest strength is the network they have – they will usually have a huge network of clients that have different demand for products and volumes.
2) Wholesalers usually have a network they specialize in. For example, Wholesaler A may have a wide network and strong relationships with retailers, while Wholesaler B may have strong ties with fish processors.

Table 2 Common Types of Mackerel Wholesalers

Wholesalers		
Wholesaler A	**Wholesaler B**	**Wholesaler C**
Strong network with Retailers	Strong network with Restaurants and other Food Service Chains	Strong network with Fish Processors (mostly small companies)

Source: Promar Consulting Interview

Importers usually do not have the level of broad network as wholesalers do, and for that reason, wholesalers have a solid position in the imported mackerel distribution.

3) A portion of the Norwegian mackerel is directly sold to the end-use channels, without going through wholesalers. These retailers are usually with strong buying power and can purchase large volumes at a time. The products sold directly to retailer are mostly processed mackerel products that are ready to sell (e.g. salted mackerel) and only require packaging and labeling, which can be done at the retail store.

Figure 15 In the case of Importers directly to Retailers

Source: Promar Interviews

3rd Stage - Processors

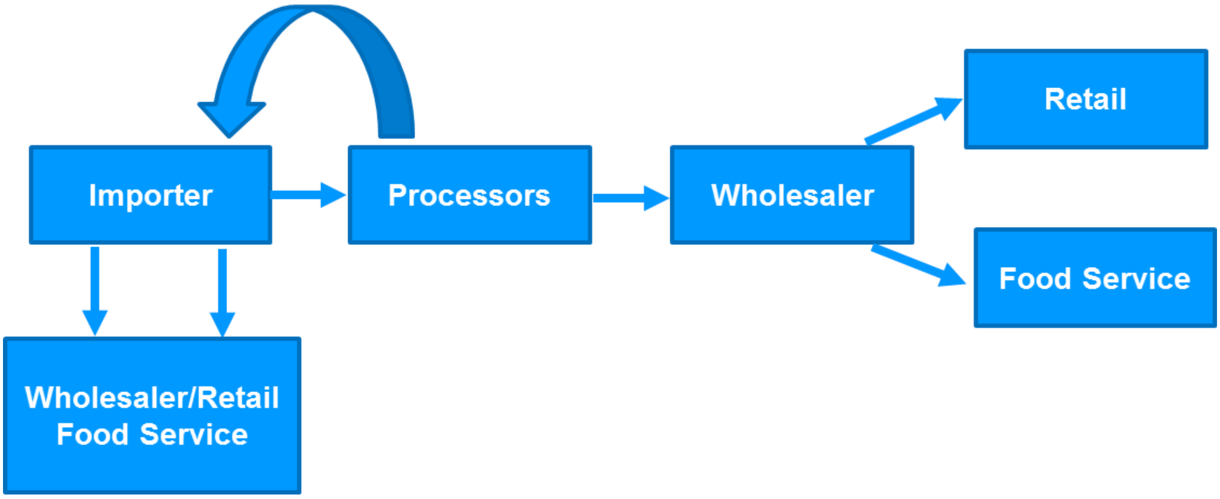
1) Processors buy mainly from wholesalers, but there are companies which also buy directly from importers. These are usually large processors that can process up to a few thousand tons a year.
2) Some of the imported mackerel products require full processing from round fish, while other products require secondary processing only. For secondary processing, Japanese processors are using mackerel products that have been processed once in a 3rd country (usually into 2-piece fillets, or smaller *"kirimi"* cuts). Some companies prefer not to process the products completely in the 3rd country, but to take the extra step and conduct the secondary processing in Japan.

Table 3 Reasons for Secondary Processing in Japan

1	Mackerel products that are processed again in Japan can be labeled as "processed in Japan" in retail, which has a better image among consumers.
2	For salted mackerel, products that are processed in Japan have a longer shelf life.
3	For other seasoned mackerel products such as miso and mirin: both seasoning products originate in Japan and Japan has more volume and lower prices for these ingredients. Salted mackerel with seaweed extract is also processed in Japan.

3) Most of the processed mackerel products are sold to end channels – retail and the HRI sector, by processors. However, a small portion is sold back to importers as well. Some of the larger importers have a network of clients who demand final processed products in Japan. The percentage in which importers are buying back finished processed products from Japanese processors is within the 20-30% range.

Figure 16 Processors' Relationship with Importers

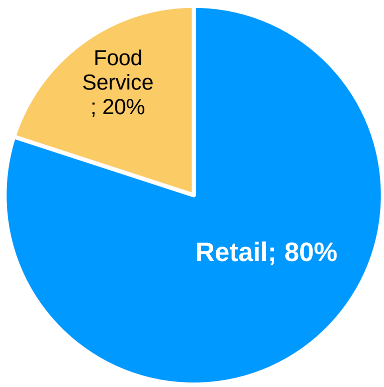


4th Stage – Retail and HRI

According to our interviewees, approximately 80% of Norwegian mackerel is distributed to retail while the remaining 20% are headed to the HRI sector. The breakdown has been consistent in the last few years.

Figure 17 Breakdown of Norwegian End Channels

Retail continues to be main chain for Norwegian mackerel



Norwegian Volume (2017): 152,000 MT (WFE)

Unlike Japan's neighboring country Korea, which sells mackerel through other channels such as TV shopping, telemarketing and e-commerce, end channels for the Japanese market are rather conventional and retailers, mostly supermarkets, have the largest share.

At retail, there are all different flavorings of Norwegian mackerel – salted, mirin, miso, salted mackerel with seaweed extract, dried and salted, etc. In food service, salted mackerel is the dominant product, but there is a small share of miso mackerel as well.

3.2 Distribution Players

In this section, we explain in more detail the role of each actor in mackerel's distribution.

3.2.1 Importers

There are approximately 3-5 large mackerel importers in the Japanese market importing more than 10,000

MT of Norwegian mackerel annually. There are also about 5 importers that carry approximately 2,000 – 8,000 MT mackerel each year. In addition to these large importers, there are about 20-30 smaller importers that handle 1,000 MT or less of Norwegian mackerel annually.

Starting from 2015, there are several seafood companies that started importing Norwegian mackerel, due to the low catch of Japanese horse mackerel, saury, Okhotsk atka mackerel, etc., mackerel business is perceived to be relatively stable. Traders estimated that there were about 30-40 companies importing Norwegian mackerel in the Japanese market in the past three years. This is the probably the highest number in the past five years. More than 10 years ago, during the peak importing years, there were about 50 importers.

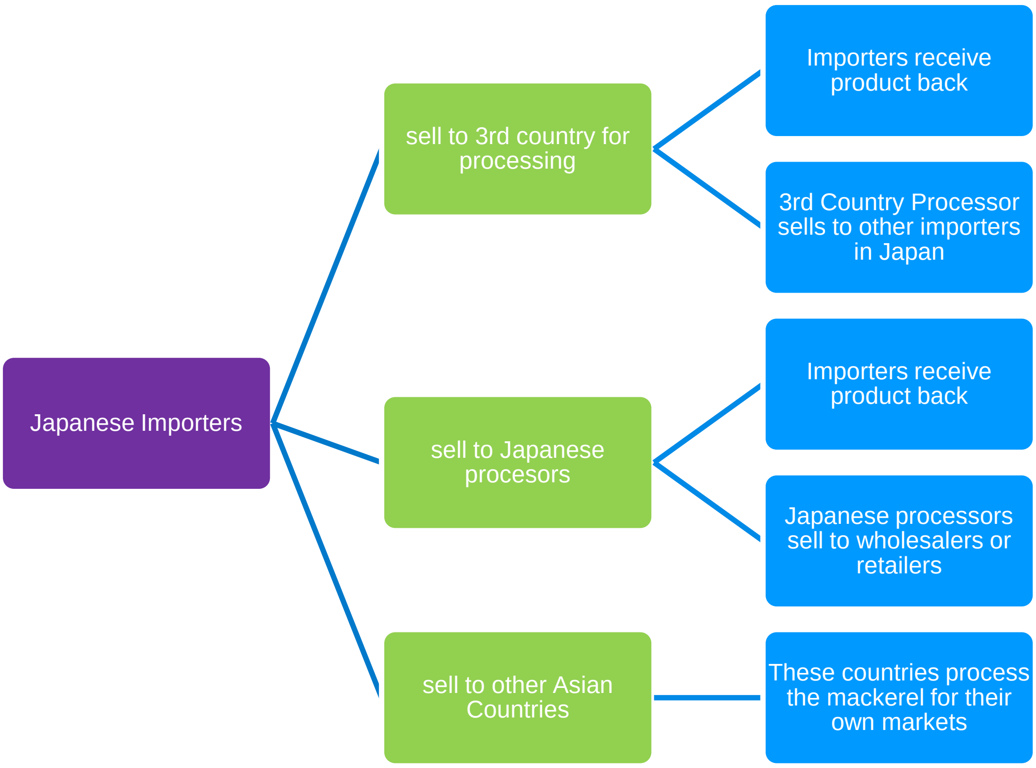
Table 4 Number of Importers

During the Peak Importing Years (late 90s ~ 2005)	2017
50 Importers	Appr. 30-40 Importers (10 Large Companies)

Source: Promar Interviews

We learned that there are several different distribution routes for importers to buy and sell round mackerel. In the diagram below we can see that importers can send their purchased Norwegian mackerel to 3 different locations: **1) 3rd country for processing 2) Japanese processors 3) Other Asian countries.** To all these targets, the mackerel sold are round mackerels.

Figure 18 Different Types of Importers



Note: In the 1st stage (in green color) all the mackerels are sold as round mackerel.
Source: Promar Consulting Interviews

In the next stage, after the mackerel is processed into end products (fillets, boneless fillets, etc.), some of the end products are bought back by the importer (with prior agreement), or they are sold to the lower stream in the supply chain by the processor.

In the case of supplying to other Asian countries, mainly to Taiwan and Korea, the products are processed and consumed within that particular country. In other words, they are not redirected to the Japanese market.

More companies are moving away from just selling round fish to processors, as mackerel products as a “raw material” have slim profit. Instead, there is a tendency for importers to buy back processed products. The high-value added products have greater profit, but importers will be competing with their processors when it comes to selling the final products. “*Some of our processors are upset that we are selling more processed products, which is in direct competition with them. But there is no choice, the market is favoring more value-added products, and all importers would like to capitalize on this*,” said an experienced importer.

3.2.2 Wholesalers

In Japan, wholesalers play a big part in the distribution chain and this system can be traced back for more than 100 years. It is often hard for suppliers to cut wholesalers off as middlemen and start selling directly to the end channels. Wholesalers have the advantage of supplying different volumes to their customers, while most importers do not have that flexibility, and would usually prefer to distribute in large volumes.

Wholesalers’ key strength is the network they have. And this is another reason why the upper stream importers will have hard time establishing direct connection with the players at the end channels. Also, wholesalers have a well-developed delivery system including a large number of trucks, which importers do not have. They also have strong sales force across large and small regions where the importers cannot reach. Lastly, the Japanese do not like to change the way they do business. The wholesaler culture is deeply rooted in the business, and most people are accustomed to working with them.

Table 5 Reasons Why Wholesalers Have Strong Position in Japan

1	Strong network of customers in a particular industry or industries (e.g. retail, processing, food service, etc.)
2.	Well-developed delivery system
3.	Strong sales force that can cover not only large cities but rural areas as well
4.	Working with wholesalers is deeply rooted in the Japanese conservative business model

Source: Promar Consulting Interviews

3.2.3 Processors

There are processors who are based in Japan and there are countries outside Japan (so-called 3rd country processors), mainly in China and Southeast Asia. As we discussed 3rd country processing previously, in this section we will focus on the processors in Japan.

Japanese Processors

With the exception of a few processors that can handle a large volume of mackerel (e.g. 5,000 MT), most of the processors in Japan are small companies. In the past 20 years, the trend has been to transfer mackerel processing outside Japan, due to Japan's high labor costs. This is especially true for the 1st level processing, such as cutting mackerel into fillets. To compete with the cheaper processing in 3rd countries, Japanese processors usually implement the more value-added processing such as miso, mirin, shime seasonings, and the trendy product – salted mackerel with seaweed extract.

Japanese processors also do not have the technique to do heavy processing such as boneless mackerel, which has been trendy for the past 5 years. Hence, for products such as "boneless mirin mackerel", the boneless processing was performed in a 3rd country, but the mirin flavoring was added in Japan. The final product will be labeled as "processed in Japan."

Overall, the mackerel processing in Japan is a shrinking business. Not only is it losing its competition to 3rd country processing, but it is also losing successors who would carry on the family business. Many of the second generation refuse to carry on the family business knowing that the growth may be limited, and that it is hard to recruit people in Japan these days to do such kind of "dirty work". In fact, some processing facilities in Japan hire mainly Chinese and S.E Asian workers. This fact, however, is not communicated to Japanese consumers.

3.2.4 Retail

Supermarkets/Hypermarkets

According to the statistic organization *Tokei Geppou*, supermarket sales recorded 375 billion USD in 2017. The largest two organizations are AEON and Ito-Yokado.

The largest retail outlet is AEON. AEON establish a price-advantage by holding low-price sales promotions for food as well as offering over 5,000 private brand products (TopValu). The second largest retailer in terms of overall sales value is Ito-Yokado. Ito-Yokado is part of the Seven and I group that is also experienced great success with its 7-11 convenience store business.

Figure 19 Top Supermarket Chains

Company Name	Total Sales 2017 (JPY Bil)	Ratio of Food Sales 2017
Aeon	**2,175**	**49%**
Ito-Yokado	**1,255**	**47%**

Convenience Stores

The total sales in convenience stores in 2017 was 67 billion JPY.

Convenience stores still play a large role in the retail sector. There is an increasing trend of selling more fresh foods and finished products in this sector. The mackerel products sold at convenience stores are in vacuum packs and thus can be consumed by easily heating it in hot water or microwave.

There are approximately 55,000 convenience stores outlets in Japan as of the end of 2017. The top three chains are Seven/Eleven, Lawson and Family Mart. These three chains account for 91% of the convenience store shares in terms of store numbers. Seven/Eleven, which has the largest number of stores, is owned by the retail giant Ito Yokado. The mackerel sold in Seven/Eleven is under Ito Yokado's private brand "7 Premium." The main mackerel products in Seven/Eleven are vacuum packed "salted mackerel" and "miso mackerel." Both products use Norwegian mackerel.

Figure 20 Mackerel in Convenience Stores

Salted Mackerel (vacuum pack) Norwegian Mackerel	Miso Mackerel (vacuum pack) Norwegian Mackerels
	

Convenience stores have slowly become an important end channel for mackerel sales.

Source: 7-11 Homepage

Specialty Stores

There are two types of specialty stores in Japan. One is the traditional "mom and pop" style fishery store that can be found in older neighborhoods. As supermarkets have become established across all parts of Japan, the conventional fishery stores have started to slowly disappear. The main mackerel products sold in this kind of stores are mostly domestic fresh mackerel.

The second type of specialty stores can be found in the food sections at department stores. Consumers shopping at the department store food section are usually looking for something different than what they can find in their local supermarket. These specialty stores usually try to push domestic products knowing that many Japanese people still prefer the image of domestic products. As for mackerel, fresh domestic mackerel are the main product, accounting for approximately 70% of their total mackerel sales.

In terms of processed mackerel, specialty stores limit the sales of mackerel products to those that are processed in Japan only. But recently, due to the increase in sales of boneless mackerel (which are mostly processed in 3rd countries), some of these specialty stores have started selling processed mackerel products that are from outside of Japan. The volume is still small, approximately 5% of their total processed mackerel sales.

Table 6 Characteristics of Specialty Stores

1	Prefer domestic mackerel over imported mackerel
2	Prefer fresh mackerel over processed mackerel
3	Prefer bone-on mackerel over boneless mackerel

Source: Promar Consulting Interviews

3.2.5 Food Service Sector

Both Norwegian mackerel and domestic mackerel are used in the Food Service sector. The food service sector currently takes up 20% of the Norwegian mackerel. This channel is very price sensitive; therefore, it only has the potential for increased mackerel usage when prices drop.

Mackerel is usually known as an everyday family food, but it can be found in many Japanese style restaurants: family style "*teishoku* (set meal) restaurants, casual dining places – so called "family restaurants", Japanese "*izakaya*" (pubs) among other.

Figure 21 Norwegian Mackerel in Lunch Box

Norwegian mackerel is used in Japanese lunch box, "bento" in Japanese. 500 JPY (33 NOK)

Photo credit: Hama Lunch Box

Mackerel is also a very popular ingredient within the Japanese lunch box ("*o-bento*") segment. Bento manufacturers are known to be one of the most price sensitive mackerel buyers. In this channel, the popular mackerel products used are: Norwegian mackerel processed in 3rd country, North European mackerel processed in 3rd country (much smaller volume than Norwegian mackerel), or domestic mackerel that are processed in Japan. We learned that when the mackerel prices are high, the lunch-box shop will substitute mackerel usage with other fish like Chilean Coho salmon.

The Norwegian mackerel that is sold in the food service sector is mostly products that have been processed in 3rd countries, not in Japan. Currently two of the largest Japanese style restaurant chains "Ootoya" and "Yayoi Ken" use Norwegian mackerel for their mackerel meals. The salted mackerel set meal is usually ranked within the top five selling meals at Ootoya. These large chain restaurants do not do their own seasoning with fresh or frozen fish as it is too time and cost consuming, and instead purchase from wholesalers that sell ready-to-use processed products.

The table below summarizes examples of mackerel set meals at the major chains.

Table 7 Mackerel in Major Food Chain Restaurants

Large chain restaurants use Norwegian mackerel – mostly processed in a 3rd country

Chain Name	Ootoya	Yayoi Ken	Gusto
Restaurant Type	Japanese style set meal	Japanese style set meal	Asian/Western Casual Dining Place
# of Outlets in Japan (2017)	348	352	1,368
Mackerel type/Origin	Bone-on (Norwegian)	Bone-less (Norwegian)	Bone-less (Norwegian)
Salted Mackerel Meal Price	858 JPY (56 NOK)	630 JPY (41 NOK)	646 JPY (42 NOK)
Sample Image (from the company's homepage)			

Source: Ootoya, Yoyoi Ken, Gusto Official Homepage

4 MAJOR PRODUCT SEGMENTS AND END USES

In this section we look at the main mackerel products in the Japanese market, the breakdown of fresh and seasoned mackerel, and the breakdown of Domestic/Norwegian mackerel products, the position of Norwegian mackerel in retail, and the changes in product trends in the past three years.

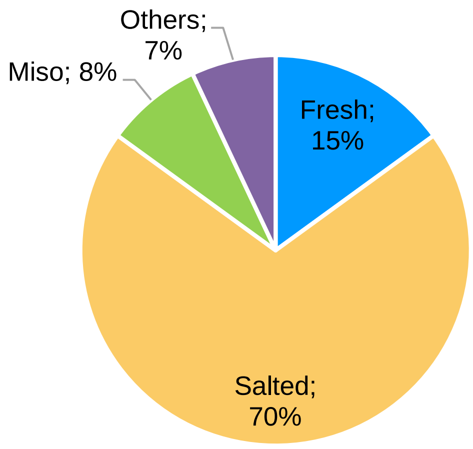
4.1 Segmentation Trends

The main mackerel product segments could be divided into fresh mackerel segment and seasoned mackerel segment, which includes salted, miso (fermented soybeans and salt), mirin (sweet rice wine marinated), and shime (vinegar pickled) mackerel.

Fresh mackerel accounts for 15% of the total market and Japan is the only supplying country of fresh mackerel. Salted mackerel continues to the best-selling product of all seasoned products types with almost 80% of the seasoned mackerel share.

The figure on the right shows the shares of each segment in the market.

Figure 22 Mackerel Product Segmentation



Total (2017): 271,000 MT

Source: Promar Consulting Industry Interviews

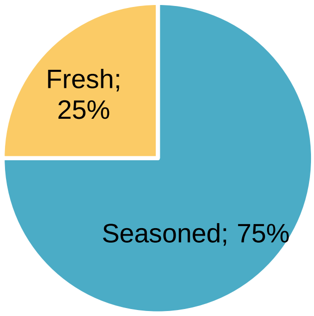
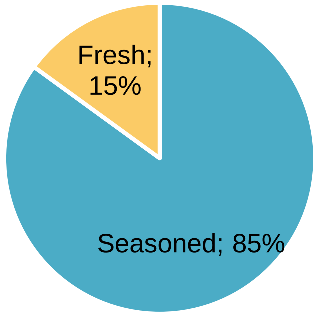
4.1.1 Fresh Mackerel

Fresh mackerel actually refer to the “de-frosted” mackerel that is sold on the market.

The sales of fresh mackerel (that are sold in the domestic market) have dropped in the past few years. This was primarily due to the huge drop in large mackerel supply (as aforementioned, mackerel size has been small).

Fresh mackerel is the least expensive mackerel product in the market. It is popular among consumers who value fresh fish, prefer to do their own seasoning, or simply want the cheapest mackerel. In 2014, fresh mackerel accounted for 25% of the total mackerel market. By 2017, the share of fresh mackerel decreased to 15%.

Figure 23 Breakdown of Mackerel End Use (Fresh vs Seasoned)

<table>
<tr><th>2014</th><th>2017</th></tr>
<tr><td>
</td><td>
</td></tr>
<tr><td>Total Supply*: 287,000 MT</td><td>Total Supply*: 271,000 MT</td></tr>
</table>

**Round to the nearest 1000*

Source: Promar Consulting

4.1.2 Seasoned Mackerel

In 2017, Promar estimated that approximately 82% of the seasoned mackerel is salted mackerel. This breakdown has remained fairly flat. In 2014, we estimated that approximately 80% of the mackerel in the market is salted mackerel.

The four conventional seasoned mackerel products: salted, miso, mirin and shime (excluding the Others segment) are expected to continue to be the standard products sold in retail and food service. Salted mackerel continues to be the key processed mackerel. Miso, mirin, and shime have much smaller market shares compared to salted mackerel but all three products have been selling well consistently.

Figure 24 Standard Mackerel Products

1. Salted Mackerel	2. *Miso* Mackerel
	
3. *Mirin* Mackerel (sweet wine marinated)	**4. *Shime* Mackerel (vinegar pickled)**
	

Photo Credit: Promar Consulting, Google Images

Although mackerel is considered to be a conventional fish, new products are being introduced into the retail market in order to stimulate more sales. They are included in the Other category. One of the most noticeable changes in the mackerel market in Japan has been the increasing variety of mackerel products available and the growing sales of easy-to-eat and easy-to-prepare mackerel. In the past 5 years, there are 4 categories of products that emerged on the market that have caught consumers' attention:

1) Boneless mackerel

2) Salted mackerel with seaweed extract

3) Easy-to-prepare mackerel

4) Mackerel with new flavorings.

In the case of boneless mackerel and easy-to-prepare mackerel, the products do not have new flavorings, but a new way of eating and preparing mackerel. Items 1-3 are trendy and are growing annually, while item 4 tends to be in and out of the market.

Figure 25 Trendy Mackerel Products

Boneless Mackerel	Salted Mackerel w/ Seaweed Extract	Easy-to-Prepare Mackerel
		

Source: Google images, Promar Consulting

Boneless mackerel, as the name indicates, has no bones. During the processing stage, bones were picked out. This product is targeted towards seniors who may choke on fish bones, and children who find fish eating troublesome due to the bones.

Salted mackerel with seaweed extract is a new product which appeared in the market in 2013. It is made by adding seaweed extract to the salted water in which the mackerel fillets are soaked and thus the fish tastes milder. This is a traditional way of consuming fish, popular especially in Western Japan. Until recently, there were no retail products available with this flavoring. Some retailers have been pushing this value added salted mackerel providing only salted mackerel in seaweed extract in the corner of the store where they used to display the conventional salted mackerel.

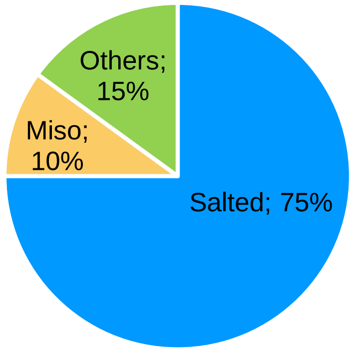
"Easy-to-prepare" mackerel is a product that takes little effort to cook. This product can be heated easily in hot water (with the package unsealed) or in a microwave. For busy people who have little energy to prepare a sophisticated meal, this product is a convenient solution. These two products are fast growing products in the market with great potential for a future growth. We will take a look at their potential in the later section.

As for mackerel cuts, the smaller cut "kirimi" are becoming more popular than fillets. Kirimi comes in small package, which suite the demand from small-size families. It could also be cooked using a frying pan instead of grill (which is more troublesome to cook and clean).

4.2 Norwegian Mackerel End Uses

The breakdown of Norwegian mackerel has stayed fairly the same in the past few years. Salted mackerel continue to be the leading product with 75% of Norwegian mackerel in Japan being used for this purpose. The second most produced Norwegian mackerel product is miso mackerel with an approximately 10% share, Easy-to-prepare miso mackerel sold in convenient stores and supermarket increased, though not dramatically. Other products include mirin, shime, dried mackerel, and un-seasoned fillets take up about 5%.

Figure 26 End-Uses of Norwegian Mackerel (2017)



Norwegian Mackerel Total Volume (2017)*: 152, 000 MT

*Round to the nearest 1,000

Source: Promar Consulting based on industry Interviews

Let us look at each product and their potential in the future.

4.2.1 Salted Mackerel

Salted mackerel continues to be the strongest Norwegian mackerel product.

A large portion of the Norwegian salted mackerel is processed as salted mackerel in a 3rd country before being shipped to Japan. This started about 20 years ago and will continue to be the trend in the future. While we believe the salted mackerel will continue to capture approximately 75% of Norwegian mackerel's share, there are two products – boneless mackerel and easy-to-prepare mackerel that have increased their share in the past 3 years and are projected to grow in the future.

4.2.2 Boneless Mackerel

Boneless mackerel is processed in countries outside Japan (mostly in China, Vietnam, and Indonesia), using Norwegian mackerel. We have so far not encountered any end channels that supply boneless mackerel using domestic mackerel or mackerel from other countries of origin.

Boneless mackerel is a mackerel product that has all bones removed during the processing stage. This product is the fastest growing product in the market. About 6 years ago, there were only a few retailers at the "experimenting" stage. Today, almost all national supermarket chains carry boneless mackerel as a regular product. Most of the boneless mackerel are in salted form, under the salted mackerel category, but there is also a small portion that is made into miso and mirin mackerel.

Figure 27 Boneless Mackerel

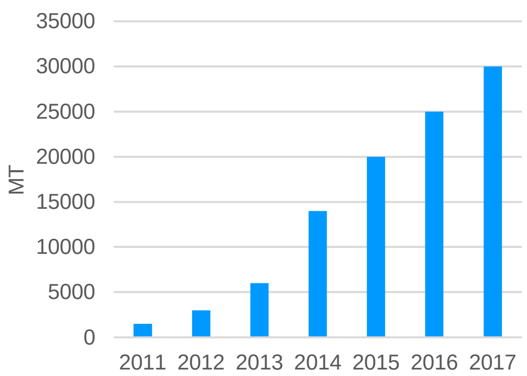
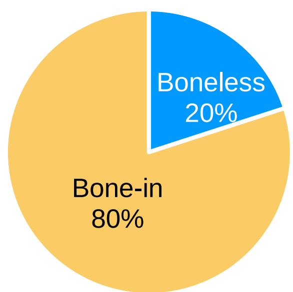
Boneless mackerel processing is time consuming, all the small bones are picked out by small pliers one by one. The mackerel has to be completely defrosted, which has negative influence on the taste and quality.

Photo credit: Saba Marukane

As it is mentioned in the beginning section of the report, the boneless mackerel are targeted towards seniors and children. However, these days many retailers only offer boneless salted mackerel which has completely replaced the bone-in mackerel, so it is consumed by people of all age groups. Boneless mackerel is especially becoming popular among busy working people. It can be prepared on frying pans as opposed to grill – the common cooking method for the conventional bone-in salted mackerel. Frying pans are easier to use, easier to clean, and leave less of a fish smell in the kitchen after cleaning.

Promar estimated that 5% of the Norwegian mackerel in Japan in 2013 was used for boneless mackerel. Based on our interviews, in 2017, boneless mackerel has exceeded 20% of all Norwegian volume. This increase was faster than we estimated last year, in which we believe it would take another 3 years for boneless mackerel to reach this level. Looking forward, boneless mackerel can reach up to 25%-30% of the Norwegian supply in the next 3 years according to Promar Interviews.

Figure 28 Growth of Boneless Mackerel

Norwegian Boneless Mackerel	Norwegian Mackerel：Boneless vs Bone-in（2017）
	

Source: Promar Consulting Industry Interviews

Boneless mackerel is a promising product, but it also has its challenges. We have summarized the SWOT of boneless mackerel in the following table. The sections in green indicate our newest findings.

Table 8 SWOT of Boneless Mackerel

Strengths	Weaknesses
■ Easy to eat without worrying about bones ■ A safe product for seniors and a less troublesome product for children to eat ■ Popular among busy working people: can be easily cooked in a frying pan (without using a grill)	■ Lower quality/less tasty than conventional salted mackerel (lots of processing procedures have negative impact on the freshness and quality). ■ Price is higher than bone-in salted mackerel ■ China, the largest processing country for Norwegian mackerel for the Japanese market, does not have large scale boneless processing
Opportunities	**Threats**
■ It is one of the few mackerel items in the mackerel market that is growing and it is projected to grow ■ Consumers, especially children, are convinced that boneless mackerel should be the standard mackerel dish ■ Vietnam and Indonesia are increasing boneless processing year by year and their skills have been improving	■ Other mackerel sales drop in the future as the younger generation is not buying other mackerel products (due to the bad impression of boneless mackerel) ■ If the labor costs in Vietnam and Indonesia increase, it will affect the production costs of boneless mackerel

Source: Promar Consulting Industry Interviews

Boneless mackerel potential growth in the future: Very Strong

It is not an overstatement to say that consumers today have made a tradeoff for convenience over the best possible taste. The next product we are going to introduce provides a different convenience – the convenience of easy cooking.

4.2.3 Easy-to-prepare Mackerel

"Easy-to-prepare" mackerel is another growing product. The two commonly sold products are:

1) miso mackerel

2) grilled salted mackerel (in pre-cooked form)

The flavors available are still very limited at this point.

While easy-to-prepare mackerel are available at supermarkets, their main driving force comes from convenience stores such as Seven/Eleven. In the past 3-5 years, one of the main trends in convenience stores is the increased sales of perishable foods. Many consumers are utilizing convenience stores as a mini-supermarket. In addition, convenience stores are open 24 hours, making it convenient for workers who work long hours, arrive home late and often have no other grocery shopping option.

Figure 29 Easy-to-prepare Mackerel

There are two main types of easy-to-prepare mackerel – miso and salted (in cooked form already) mackerel

Easy-to-prepare Miso Mackerel	Easy-to-prepare Salted Mackerel
	
Miso mackerel is the best-selling easy-to-prepare mackerel package. 1/2 fillet (or kirimi) for 178 JPY (13 NOK)	Easy-to-prepare salted mackerel does not have the crisp texture of the standard mackerel retail pack, but it offers a good alternative to busy people. One fillet for 198 JPY (14 NOK)

Source: 7 & I Holdings

This mackerel can easily be prepared by putting it in hot water (with the vacuum pack unsealed), or heating it in the microwave. There is no pan to clean, and the preparation itself only takes a few minutes. The volume per package is also small, which is suited for people living alone. For busy working people, this is a good solution for a quick meal. These precooked products are still a small share of the total Norwegian supply, estimated to be around 5%.

But similar to boneless mackerel, this is one product that has potential to continue its growth in the near future.

Figure 30 Heating Easy-to-Prepare Mackerel

It only takes less than 2 minutes to heat this kind of vacuum pack mackerels.

Photo Credit: Kouzushi Homepage

Easy-to-prepare mackerel potential growth in the future: Moderate to Strong

4.2.4 Salted Mackerel in Seaweed Extract

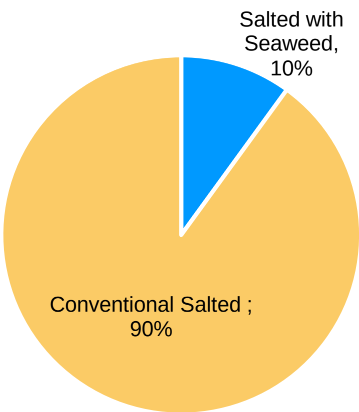
Manufactures and retailers have been searching for ways to make the mackerel products more exciting and more attractive. Salted mackerel with seaweed extract is one of the few products that succeeded. The extra seaweed flavoring (adding seaweed to the salted water during processing stage) makes the flavor and the taste richer. It is also known to eliminate the fish-smell in which some consumers detest.

This product uses Norwegian mackerel; usually first sliced into fillets or the smaller kirimi cuts in 3rd country, and later processed in Japan again for the salted and seaweed flavoring. On the retail package, the processing country is labeled to be Japan – this elevates the value of the product, made in Japan has a premium value in Japan Market.

Many large retail chains have completely replaced their salted mackerel products with salted mackerel with seaweed flavoring. Seaweed flavored mackerel has higher margin, and instead of giving consumers the choice of choosing the traditional salted mackerel or the seaweed flavored salted mackerel, many retailers choose to only provide the latter.

In 2013, the seaweed flavored salted mackerel was just introduced to the market, it has less than 1% of the Norwegian mackerel share. In 2017, the share was approximately 10% of the salted Norwegian mackerel is salted mackerel in seaweed extract.

Figure 31 Share of Salted Mackerel in Seaweed Extract in Norwegian Salted Mackerel



2012	2014	2017
<1%	5%	10%

Though the volume is still only 10% of the Norwegian salted mackerel, salted mackerel with seaweed extract has grew from less than 5% three years ago to 10% in 2017. It is estimated to have an upward trend in the future as retailers would like to sell more value-added mackerel.

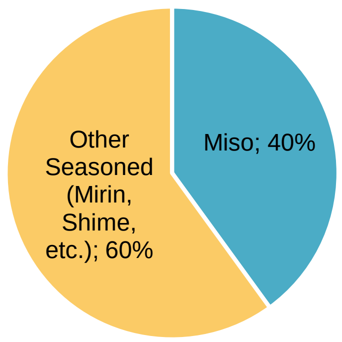
Source: Promar Consulting Interview

Salted Mackerel with Seaweed Extract potential growth in the future: Moderate

4.2.5 Other Seasoned Mackerel

Other than salted mackerel, miso and mirin seasoned mackerel are the two other common products made from Norwegian raw material. Within the seasoned category (excl. salted) which accounted for 38,000 MT in 2017, miso is the key product with 40% share. The remaining 60% are occupied by the other seasoned products, such as mirin, shime, dried mackerel, among others. The chart on the right shows the share per each category.

Figure 32 Seasoned Norwegian Mackerel (excluding salted)



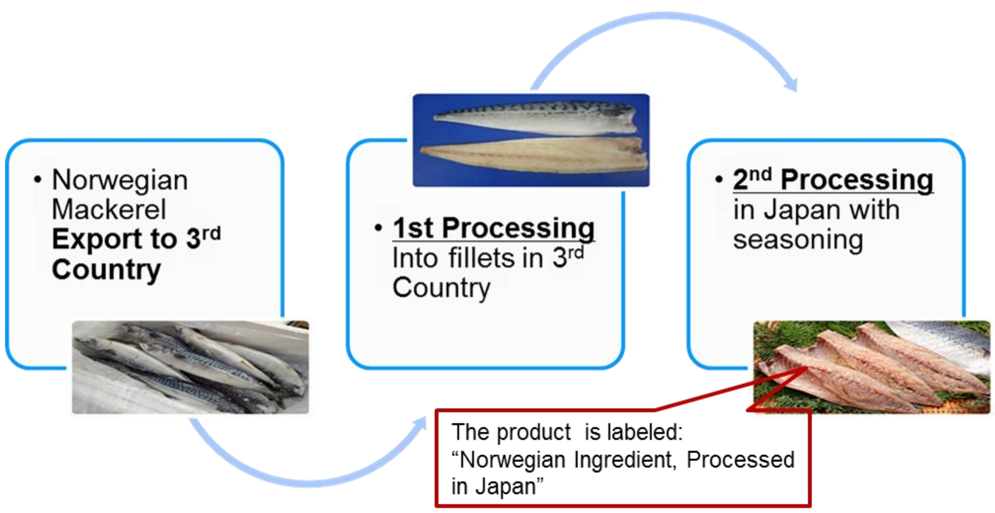
Seasoned Norwegian Mackerel Volume: 38,000 MT

Source: Promar Consulting Industry Interviews

Shime mackerel is a standard seasoned product, but it takes up only a small share within the Norwegian mackerel supply.

Most of the mirin and miso mackerel are made from fillets that were first processed in China or other Asian countries (1st level processing), and later marinated in mirin and miso in Japan (2nd level processing). The key ingredients for marinating: mirin and miso, are traditional Japanese ingredients that are not available in large volumes in 3rd processing countries. It would cost more to have these ingredients shipped to the 3rd processing countries, so processing companies and importers prefer to do it locally in Japan.

Figure 33 Processing Seasoned Mackerel



Source: Promar Consulting Industry Interviews

Shime mackerel is probably the only final product in which domestic mackerel has an advantage over

Norwegian mackerel. Domestic fresh mackerel are considered to be the freshest product in the market and to many processors, it is the most suitable for raw fish processing (shime mackerel is also known as “sashimi,” or raw fish). Also, some buyers believe the domestic mackerel’s lower fat content is better suited for shime mackerel. Other buyers believe that the Norwegian mackerel “smell” is slightly different than domestic mackerel. A change in the mackerel use may affect the sales, and that is why most of the shime mackerel uses domestic mackerel. Lastly, Norwegian mackerel has thicker skin than domestic mackerel. For shime mackerel, the thinner skin is more favored.

Having said that, a small portion (estimated to be less than 5%) of the Norwegian mackerel is used for shime mackerel. Some processors like the consistent quality of the Norwegian mackerel, and do not believe the frozen round fish or the higher fat content is a disadvantage. The shime mackerel that are processed in 3rd countries – mostly in Thailand, since the country has a strong processing business of processing fresh fish into sashimi for Japanese importers, also has a price advantage over domestic processed products sold to the HRI sector.

Figure 34 Shime Mackerel

Shime mackerel is one of the rare mackerel products that favors fish with lesser fat.

Source: Tsukiji Style Homepage

Table 9 Advantages of Domestic Products for Shime Mackerel Production

1	Fresh mackerel is a better raw material than frozen mackerel
2	The lower fat content of domestic is more suitable
3	Some processors believe the “smell” of domestic mackerel is better than Norwegian mackerel’s “smell”
4	Norwegian mackerel’s skin is considered to be too thick for shime mackerel.

Source: Promar Consulting Industry Interviews

For other seasoned mackerel, the conventional seasoning of miso, mirin, and shime will be products that sell consistently, but there was no indication by our interviewees that any of these products will show big fluctuations in sales going forward.

Other Seasoned Norwegian mackerel potential growth in the future: Flat

5 NORWEGIAN MACKEREL'S POSITION AT RETAIL

Promar estimated that approximately 80% of Norwegian mackerel and 70% of the domestic mackerel ends up sold at retail. In this section we provide more details about the position of Norwegian mackerel at retail based on our interviews with key Japanese retailers, as well as store checks.

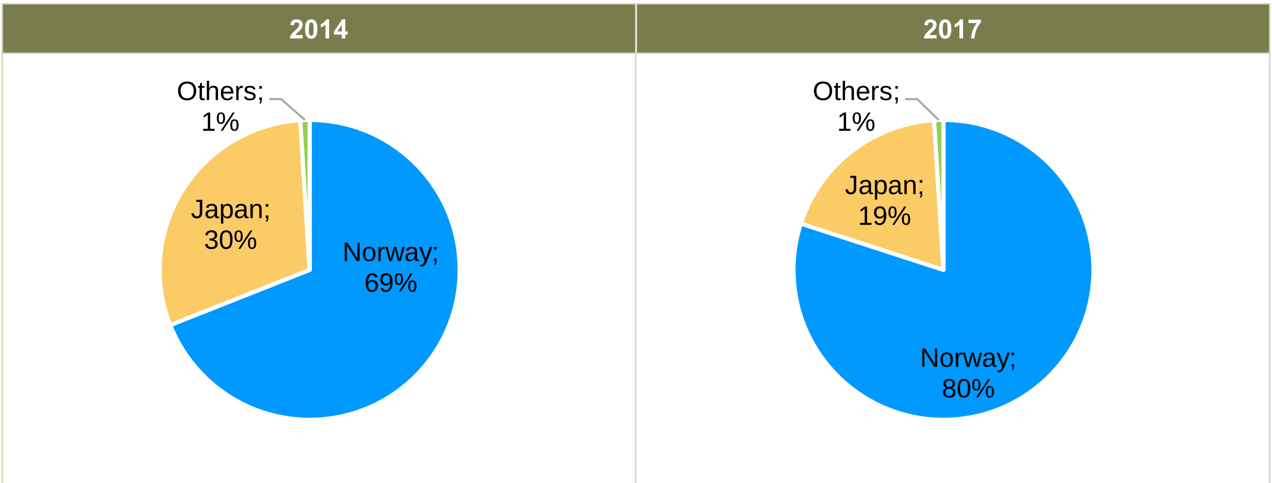
5.1 Norway in the Salted Mackerel Segment

As we explained in our previous section, 75% of the Norwegian mackerel supply in Japan is salted. In Section 3 (Distribution section), we explained that 80% of the Norwegian mackerel is distributed to the retail sector. Based on this information, we calculated that approximately 80% of salted mackerel sold at retail is Norwegian mackerel. This is a 11% increase from a 69% share it had in the previous year. We identified the main reasons for the increase as:

1) Insufficient volume of large domestic mackerel

2) Norwegian mackerel have consistency in volume and quality

Figure 35 Salted Mackerel at Retail (Norway vs. Japan)



Source: Promar Consulting Industry Interviews, Store checks

5.1.1 Fillets and *Kirimi* Cuts

Salted mackerel, also known as *shio-saba* in Japanese, is the bestselling mackerel product at retail. Salted mackerel is not a single product and there are variations of the product which need further explanation. Salted mackerel can be broken into two large categories: 1) salted mackerel in fillets, 2) salted mackerel in *kirimi* (fillets in smaller cuts).

While fillet cuts are straightforward, *kirimi* is a typical cut of fish in Japan. Kirimi cuts are just a fraction cut of fillets and require more processing work. There are different sizes and different standards for *kirimi* cuts which depend on the requirements of the retail buyers. The reason why kirimi cuts are priced higher is the additional processing time and effort involved in their production, as the cuts need to be measured carefully. This extra step pushes the processing cost up, and as a result, *kirimi* cuts are mainly processed overseas, mostly in China.

The advantage of *kirimi* cuts over fillets is the smaller size which is popular among consumers who do not want to eat a whole fillet of mackerel.

Figure 36 Key Salted Mackerel Varieties at Retail

Fillets	*"Kirimi"* Cuts
	

Salted Mackerel Fillet (left) is the most common salted mackerel, but it also has the least value added. Salted *kirimi* (right) requires more processing time, but higher-value products like kirimi cuts are slowly growing in sales.

Source: Online Seafood Store "5 daime Tsunezo," "M-mart"

5.1.2 Other Salted Products

Other variations of salted mackerel products which use Norwegian mackerel include *haiboshi* (specially dried in ash), *ichiyatsuke* (salted overnight, not dried), salted mackerel in seaweed extract (seaweed flavoring is added to the fish during the processing which gives the mackerel a milder taste), and boneless salted mackerel. Newer, higher value-added products such as boneless and salted mackerel in seaweed extract are the two growing products in the salted mackerel segment that use Norwegian raw material. The two high value-added products – *Haiboshi* and *Ichiyaboshi* mackerel, only contribute a small volume to the category due to their higher price.

Nevertheless, the Norwegian mackerel is heavily favored when making high value-added products such as *haiboshi*. This product requires a large-sized fish (over 600 grams) which is rich in fat and Norwegian mackerel has an advantage over domestic products in regard to both specifications. However, as explained earlier, in the past 3 years, the volume for large domestic mackerel has been small. Even if there was a large domestic mackerel supply, due to its higher price processors considered it as beyond their budget. As a result, some processors started to replace domestic mackerel with Norwegian mackerel.

Figure 37 Haiboshi Mackerel

Source: Internet Shop Yaguchi

We have summarized the different types of salted mackerel at retail in the following table.

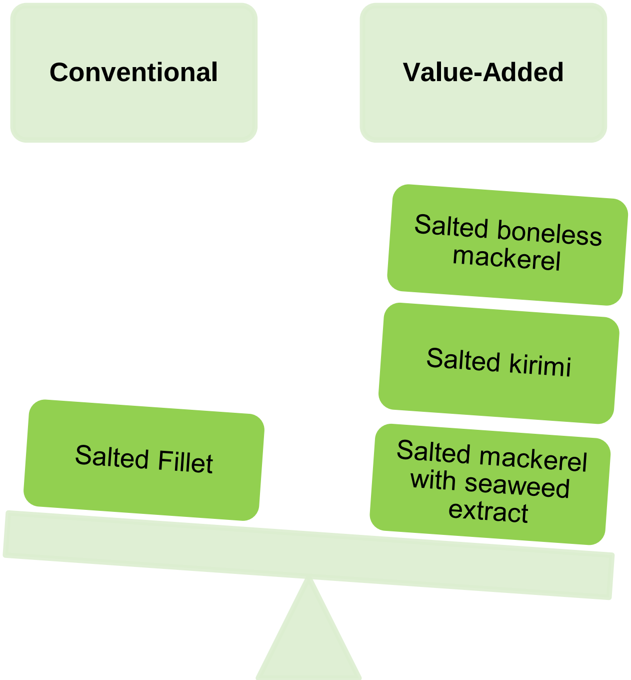
Table 10 Available Salted Mackerel Products at Retail

Country of Origin of the Raw Material	Type	Volume Sales in Retail	Available Form
Norway/Japan	Bone-on	Very Large	Fillet/ Kirimi
Norway	Bone-less	Large	Fillet/ Kirimi
Norway	In Seaweed Extract	Medium	Fillet/ Kirimi
Norway/Japan	*Haiboshi*	Small	Fillet
Norway	*Ichiyaboshi*	Small	Fillet

Source: Promar Consulting Industry Interviews, Store Checks

The recent consumption trends in Japan are pushing for more value-added salted mackerel products in the market. Retailers and manufacturers understand that consumption of mackerel and fish in general will not increase in Japan. On one hand, the younger generation does not know how to cook fish, and, there is a trend of eating more meat among all age groups. In business terms, this means that in order to be profitable with the mackerel business, the unit profit per each product must increase. The following chart is illustration of the trend: value-added salted mackerel is gaining more weight in the market; conventional salted mackerel fillets are starting to lose ground.

Figure 38 Salted Mackerel Trend



Source: Promar Consulting Interviews

5.1.3 Consumer Perspective towards Norwegian Salted Mackerel

Japanese consumers who purchase salted mackerel can be divided into two groups.

The first group consists of consumers who are consciously buying Norwegian mackerel, believing it is a premium product. These consumers have learned about Norwegian mackerel through in-store promotions. Reportedly, over the past 5 years, the number of people in this group has been growing. Thanks to the persistent efforts of the Norwegian Seafood Council in Japan, the number of consumers who know about the premium quality of Norwegian mackerel has grown from "little to some" to "many". This trend is especially visible at retail stores where the NSC has conducted marketing promotions.

Figure 39 NSC Logo on Salted Mackerel

Thanks to the persistent promotion effort of the NSC team in Japan over the years, consumers are starting to recognize Norwegian mackerel as the better tasting mackerel. (In this package, the country of origin "Norway" is written at the front of the back, as oppose to the back of the pack as in many tray packs. There is also the "Seafood From Norway" logo included).

The second group includes consumers who are buying Norwegian mackerel because it is the only product available at retail. These consumers do not check in detail the country of origin of the product package, and are therefore unconsciously purchasing Norwegian mackerel without paying attention to the origin. On one hand, retail stores do not have large visible signs of the country of origin of the mackerel products. In addition, most of the packages have a label indicating the country of origin of the product in small font at the back of the package. This group of consumers is buying mackerel solely based on price.

5.2 Summary: Norwegian Mackerel Products Trend at Retail

As we discussed in previous sections, the key trend at retail is the need for higher value-added mackerel products. These products require additional processing and are priced higher than conventional products such as salted fillets. Higher unit prices lead to more profit for retailers and mackerel processors, which explains why many retailers are allocating more shelf space for these new product