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Japan

Dairy and Products Annual

2017 Market Situation Summary and 2018 Outlook

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Report Highlights:

Japanese fluid milk production is forecast to decrease in 2017 as the milk-producing Hokkaido region continues to recover from last year's typhoons while output in the rest of Japan falls on continued dairy herd contraction. Tight fluid milk output is expected to limit production of nonfat dry milk, butter, and natural cheese. Record-high imports of nonfat dry milk are projected in 2017 following the Government of Japan's tender announcements in January and May to meet demand and bolster buffer stocks. Cheese imports are forecast to reach a new record-high in 2017 on continued demand growth.

Keywords: Japan, JA7125, Dairy

Commodities:

Dairy, Milk, Fluid

Dairy, Butter

Dairy, Milk, Nonfat Dry

Dairy, Cheese

Production, Supply and Demand Data Statistics:**Fluid Milk PS&D Table**

Dairy, Milk, Fluid Market Begin Year	2016		2017		2018	
	Jan 2016		Jan 2017		Jan 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Cows In Milk	752	752	750	735	0	730
Cows Milk Production	7420	7394	7400	7280	0	7240
Other Milk Production	0	0	0	0	0	0
Total Production	7420	7394	7400	7280	0	7240
Other Imports	0	0	0	0	0	0
Total Imports	0	0	0	0	0	0
Total Supply	7420	7394	7400	7280	0	7240
Other Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Fluid Use Dom. Consum.	3965	3992	3955	3970	0	3950
Factory Use Consum.	3400	3349	3390	3260	0	3240
Feed Use Dom. Consum.	55	53	55	50	0	50
Total Dom. Consumption	7420	7394	7400	7280	0	7240
Total Distribution	7420	7394	7400	7280	0	7240

(1000 HEAD) ,(1000 MT)

Butter PS&D Table

Dairy, Butter Market Begin Year	2016		2017		2018	
	Jan 2016		Jan 2017		Jan 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	19	19	22	25	0	26
Production	67	66	65	59	0	57
Other Imports	13	12	12	7	0	7
Total Imports	13	12	12	7	0	7
Total Supply	99	97	99	91	0	90
Other Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Domestic Consumption	77	72	77	65	0	65
Total Use	77	72	77	65	0	65
Ending Stocks	22	25	22	26	0	25
Total Distribution	99	97	99	91	0	90

(1000 MT)

Non-Fat Dry Milk PS&D Table

Dairy, Milk, Nonfat Dry Market Begin Year	2016		2017		2018	
	Jan 2016		Jan 2017		Jan 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	53	53	55	50	0	54
Production	132	128	125	112	0	107
Other Imports	34	34	36	61	0	56
Total Imports	34	34	36	61	0	56
Total Supply	219	215	216	223	0	217
Other Exports	0	0	0	0	0	0

Total Exports	0	0	0	0	0	0
Human Dom. Consumption	138	138	144	142	0	140
Other Use, Losses	26	27	25	27	0	26
Total Dom. Consumption	164	165	169	169	0	166
Total Use	164	165	169	169	0	166
Ending Stocks	55	50	47	54	0	51
Total Distribution	219	215	216	223	0	217

(1000 MT)

Cheese PS&D Table

Dairy, Cheese Market Begin Year	2016		2017		2018	
	Jan 2016		Jan 2017		Jan 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	15	15	15	15	0	15
Production	45	47	45	46	0	46
Other Imports	258	258	275	265	0	270
Total Imports	258	258	275	265	0	270
Total Supply	318	320	335	326	0	331
Other Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Human Dom. Consumption	303	305	320	311	0	316
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	303	305	320	311	0	316
Total Use	303	305	320	311	0	316
Ending Stocks	15	15	15	15	0	15
Total Distribution	318	320	335	326	0	331

(1000 MT)

2017 Situation Summary and Update

Fluid Milk: Production Recovery in Hokkaido to Ease Output Decline in Rest of Japan

As anticipated in the last annual report ([JA6045](#) dated October 19, 2016), the typhoons that hit the milk-producing Hokkaido region in the summer of 2016 slowed the upward trend in Japan's national fluid milk production which had continued since 2015. While the negative effects of the 2016 typhoons on Hokkaido's output still linger, the region's fluid milk output in the first eight months of 2017 dropped two percent year-on-year to 2.602 MMT along with a two percent reduction across the rest of Japan (see Table 2). As such, Japan's overall fluid milk output fell two percent to 4.906 MMT. The decline outside of Hokkaido primarily reflects continued contraction of Japan's dairy herd. The year-beginning inventory of cows in milk was down two percent to 735,200 head from the previous year. Hokkaido's inventory dropped to 390,500 head and the rest of Japan fell to 344,700 head (see Note 1 and Table 10).

Industry sources anticipate that Hokkaido's output may begin to recover after the fourth quarter which could ease the national production decline somewhat. Relatively cool weather after the summer is expected to support recovery across the rest of Japan as well (see Note 2). FAS/Tokyo projects Japan's fluid milk production in 2017 to fall one and a half percent to 7.280 MMT.

Note 1: As explained in the previous annual report, continued contraction of Japan's national dairy herd is largely due to small/medium-sized family farms exiting the industry at a rate of around four to five percent per year. These farms are typically operated by aging farmers without young successors. The gradual emergence

of corporate-owned large scale dairy farms in recent years could help alleviate the decline Japan's fluid milk production. These so-called "mega-farms" (raising 500-1,000 heads) and "giga-farms" (raising 1,000-5,000 head) typically have modern design sheds with state-of-the-art automated milking robots and farm machinery. They benefit from the government's financial support schemes for livestock sector development and low-interest loans from local farm cooperatives and private banks.

Note 2: In Hokkaido, the number of young heifers/first-bred cows in the year-beginning inventory was 320,000 head, up two percent from the previous year. These animals are expected to start milking starting in the latter part of 2017 through to 2018.

Low fluid milk output in the rest of Japan created a supply shortfall for drinking milk, which was supplemented with high volumes of fluid milk from Hokkaido. As Hokkaido's fluid milk output was already tight, this led to reduced availability of fluid milk for processing utilization. In the first eight months of 2017, Japan's total fluid utilization for drinking milk products fell one percent year-on-year to 2.636 MMT while fluid milk for processing utilization dropped four percent to 2.237 MMT (see Note 3 and Table 2). Industry sources expect that favorably cool weather in recent months will support production recovery in the rest of Japan, which could dampen demand for drinking milk from Hokkaido for the rest of the year. For 2017, FAS/Tokyo forecasts Japan's national fluid utilization for drinking milk products to decrease marginally to 3.970 MMT and for processed dairy products to fall three percent to 3.260 MMT.

Note 3: From January to August, 2017, Japan's combined production of regular white milk and processed milk (composition adjusted/fortified products) increased one percent to 2.392 thousand kilo liters (see Table 4). Household consumption of milk (regular and processed milk) decreased one percent in the same period, though this data only covers households with two or more persons. Production of other drinking milk products (milk beverages, etc.) fell four percent to 799,000 kilo liters and production of fermented milk products (yogurt products, etc.) fell three percent to 727,000 MT. These declines may have contributed to the slight decline in national fluid utilization for drinking products (various types of yogurt) for the period.

NFDM and Butter: NFDM Imports to Reach Record High on Solid Demand in 2017

From January to August 2017, Japanese domestic production of major dairy commodities remained below last year's levels with the exception of fresh cream and ice cream products (see Note 4 and Table 5). NFDM production dropped seven percent year-on-year to 83,729 MT while butter production dropped 12 percent to 43,025 MT. Amidst limited supplies of fluid milk produced in Hokkaido for processing, increased fluid allocation for fresh cream (up five percent to 74,800 MT) led to reduced NFDM and butter output for the period. FAS/Tokyo estimates that Japan's domestic natural cheese production fell to 30,000 MT as the volume of fluid milk used for domestic natural cheese production was lower compared to last year at 300,491 MT.

Fluid milk production recovery in Hokkaido may increase the availability of fluid milk for NFDM and butter production during the fourth quarter, but may not sufficiently offset the decline seen in the first three quarters of the year. In light of the above, FAS/Tokyo projects significantly lower annual production of NFDM (down 13 percent to 112,000 MT) and butter (down 11 percent to 59,000 MT) in 2017 compared to the previous year.

Note 4: Increased production of fresh cream (with nonfat liquid concentrate milk as a byproduct) and ice cream products in 2017 is partly attributable to increased sales of sweets/confectionaries and desserts (including ice desserts) due to favorable weather conditions (mild winter, hot spring, relatively dry rainy

season, and hot summer lasting until mid-August). Increased allocation of fluid milk for cream production this year was also due to changes made in the government subsidy scheme for factory use fluid milk for designated dairy commodities which started in Japanese fiscal year (JFY) 2017 (see Table 2). Previously, direct subsidy payment amounts and the eligible fluid milk quota volume were set separately according to designated dairy commodities (butter, non-fat dry milk, whole milk powder, evaporated condensed milk, etc.) and for natural cheese. From JFY 2017 onwards, the scope of the subsidy program was expanded to include “liquid dairy products” (cream and nonfat liquid condensed milk). With this addition, the subsidy payment for each individual commodity was abolished and combined into one uniform payment price at 10.56 yen/kg (down from 12.69 yen/kg in JFY 2016) with the eligible milk quota volume expanded to 3.5 million MT (from 1.78 million MT for designated commodities and cheese in JFY 2016).

Japanese demand for NFDG increased in the first eight months of 2017 while butter demand continued to fall. According to ALIC’s latest production and demand estimates, ingredient utilization for NFDG increased two percent to 92,751 MT on strong demand for processed milk, confectionaries and ice desserts. Demand for butter decreased six percent to 40,731 MT on weak demand for dairy and bakery ingredients which offset stable confectionary and retail butter sales. Provided these market dynamics hold through remainder of 2017, FAS/Tokyo projects human consumption of NFDG to rise three percent to 142,000 MT while butter consumption falls 10 percent to 65,000 MT.

With a lower domestic production forecast in 2017 and already low-running stocks, the Ministry of Agriculture, Forestry and Fisheries (MAFF) announced its intention to import 13,000 MT of NFDG in January and an additional 21,000 MT in May through the Agriculture and Livestock Industry Corporation (ALIC), Japan’s state trading enterprise, during JFY 2017 (see [JA 7012](#) dated February 3, 2017, [JA 7082](#) dated June 2, 2017, and Table 12). By the end of July, ALIC had conducted a series of import tenders and successfully sold 30,000 MT of NFDG with high bidding rates for each tender (see Note 5). The remaining 4,000 MT is scheduled to be tendered in October with expected arrival in the last quarter of JFY 2017 (January-March 2018). With these record high NFDG imports by ALIC, FAS/Tokyo projects Japan’s total NFDG imports in this calendar year to reach 61,000 MT (30,000 MT by ALIC, 1,600 MT for school lunch programs, 2,400 MT in ordinary imports outside of ALIC state trade, and 27,000 MT for animal feeds which are estimated from past average imports). Japan’s NFDG imports in 2017 are expected to exceed demand, pushing ending stocks up eight percent to 54,000 MT.

Note 5: ALIC is scheduled to conduct sales tender for 2,000 MT of NFDG on November 9 (releasing stocks to commerce) that was imported under the ordinary import tender on June 8, 2017. With this release, the Government of Japan expects that NFDG supply will meet demand at least for the rest of the year.

MAFF’s tender announcement in January also included 13,000 MT of butter imports by ALIC. ALIC attempted to import and sell the full 13,000 MT between April and September via monthly tenders, however successful bids were received for only 23 percent (or 2,813 MT) of the total with the remainder of 10,187 MT left unbid. This is partly a result of Japan’s market demand for butter contracting in 2016, pushing year-end stocks 32 percent higher compared to 2015 (see Note 6).

Anticipating weak butter demand for the rest of the year, FAS/Tokyo projects Japan’s total butter imports in 2017 to reach 7,000 MT (including 2,800 MT from JFY 2016 tenders issued between January and March 2017 and 2,813 MT in JFY 2017 tenders, plus ordinary imports outside of ALIC state trade imports) (see Note 7). In addition, ALIC plans to conduct sales tenders for 2,332 MT of butter imported in JFY 2016 on October 12 and November 19. With these stocks released in the fourth quarter, FAS/Tokyo estimates that peak demand during the winter holidays will be met while leaving higher

year-ending stocks at 26,000 MT. ALIC's JFY 2017 butter import tenders were relatively unsuccessful in part because buyers anticipated the fourth quarter sale of ALIC's JFY 2016 imported stocks.

Note 6: Following high butter imports in JFY 2015 (12,800 MT), ALIC imported an additional 17,000 MT of butter in JFY 2016, which were sold into commerce after several unsuccessful attempts. FAS/Tokyo assesses that MAFF imported such large quantities to prepare for potential unforeseen demand spikes (as seen in 2015) amidst low domestic output projected for 2017 (see [JA6031](#) dated September 30, 2016).

Note 7: ALIC will hold butter import tenders for a total 4,000 MT twice on October 19 and November 14 for part of the 10,187 MT of butter left over from previous tenders. This volume is due to be delivered after January 2018. FAS/Tokyo anticipates these tenders to remain largely unbid.

Cheese: Continued Surge in EU Cheese to Push Total Imports to Record High Levels in 2017

Japan's total cheese imports continued to expand in the first eight months of 2017 (see Table 10). Despite rising import prices for major cheese suppliers across the board, Japanese imports through the first eight months of 2017 increased three percent over 2016's record-high to 175,157 MT. The increase was mainly driven by increased sales of natural cheese for direct consumption on strong household consumption (see Table 1) and of shredded cheese for the pizza industry, bakery sector, processed food industry, and ready-to-eat foods. In the same period, Japanese domestic production of processed cheese rose four percent year-on-year to 98,164 MT on solid household and institutional demand (see Note 8).

After two years of substantial EU import increases (up 49 percent in 2015 and 30 percent in 2016), EU-origin cheeses continued to make strong inroads into the Japanese cheese market in 2017. With many varieties that are competitively priced, the EU appears to be well positioned to overtake Australia as the top cheese supplier to Japan in 2017. Through the first eight months of the year, Japanese imports of EU-origin cheeses grew 19 percent to 56,793 MT. Meanwhile, imports from Oceania remained relatively constant (Australia, down four percent to 56,645 MT, New Zealand, roughly unchanged at 42,443 MT) over the same period. Japan's natural cheese imports for blending, which are largely supplied by Australia and New Zealand, dropped 11 percent to 27,593 MT on higher price offers. Imports of U.S. cheese fell five percent to 19,598 MT.

Note 8: In JFY 2017, Japan allocated 56,600 MT of the duty free quota for imported natural cheese for blending, which requires Japanese cheese manufacturers to blend Japanese domestic natural cheese with imported natural cheese at a 1:2.5 ratio to produce processed cheese products.

Note 9: Between January and August 2017, Japan's natural cheese imports were as follows: duty free quota for blending down 11 percent to 27,593 MT; fresh cheese up three percent to 59,214 MT; grated/powdered cheese down 13 percent to 1,815 MT; blue cheese down four percent to 675 MT; and "other" (including semi-hard and hard types for direct consumption and for shredding) up nine percent to 82,933 MT.

The downward trend of Japan's domestic natural cheese production beginning in 2014 continued through 2017. Along with NFD and butter, domestic natural cheese is mostly produced in Hokkaido. As the region's fluid milk allocation has been increasingly used for cream production, its allocation for cheese production has been falling. In the first eight months of 2017, Japanese factory-use milk for

natural cheese production fell two percent to 300,491 MT. FAS/Tokyo forecasts Japan's total natural cheese production in 2017 to remain flat at 46,000 MT.

FAS/Tokyo projects Japan's total cheese imports to climb three percent to 265,000 MT, surpassing the record high set in 2016. EU suppliers are expected to capture a record share of the market in 2017, collectively supplying more than 80,000 MT, and surpassing Australia as the top supplier to Japan. The United States is expected remain the fourth largest supplier to Japan, although its overall share may contract slightly. FAS/Tokyo projects Japanese 2017 total cheese consumption to also set a new record, growing two percent to 311,000 MT.

2018 Outlook

Fluid Milk: Production Down on Continued Contraction of Replacement Herd Stocks

Contracting stocks of young heifers in Japan (excluding Hokkaido) in the 2017 national inventory points to a likely decline in total number of cows in milk in 2018 (projected at 730,000 head). Despite anticipated growth in Hokkaido, the decline elsewhere in the country leads FAS/Tokyo to project slightly lower Japan national fluid milk production at 7.240 MMT in 2018. FAS/Tokyo estimates total national fluid milk for drinking utilization in 2018 to decrease slightly to 3.950 MMT as demand for solid drinking milk products remains solid. As high volumes of Hokkaido's fluid use milk continue to be shipped out to compensate for a shortage elsewhere in the country, FAS/Tokyo forecasts approximately 3.240 MMT of factory use milk available for processing, down one percent from 2017.

NFDM and Butter: Low Production Leading to High NFDM Imports while Butter Imports Remain Stable

The projected decline in Japan's national fluid milk allocation for processing will likely lead to continued output reduction of key dairy commodities in 2018 with the exception of cream. As explained above, the inclusion of cream in the government subsidy program will divert Hokkaido's factory-use fluid milk away from NFDM, butter, and natural milk production toward more profitable fresh cream production. As such, FAS/Tokyo projects Japanese domestic production of NFDM to fall five percent to 107,000 MT and butter to fall by three percent to 57,000 MT.

Estimating that Japan's ingredient demand for NFDM in 2018 holds firm at around 140,000 MT, FAS Tokyo projects imports of NFDM through ALIC at 26,000 MT in 2018 (22,000 MT during JFY 2018 plus 4,000 MT under the JFY 2017 additional import arrangement expected to be delivered after January 2018). Japan's combined total NFDM imports in 2018 are projected to contract slightly to 56,000 MT. This includes general tariff-rate quota imports for school lunch programs (1,500 MT), animal feed (26,000 MT), and ordinary imports (2,500 MT) in addition to the ALIC imports. With slightly lower imports, year-ending stocks will tighten, projected down six percent to 51,000 MT.

FAS/Tokyo estimates that demand for butter in 2018 will remain stable at 65,000 MT with Japan importing around 6,000 MT of butter through ALIC (2,000 MT during JFY 2018 plus 4,000 MT tendered in JFY 2017 for delivery after January 2018). With ordinary imports outside state trade estimated at 1,000 MT, Japan's total butter imports are projected to reach 7,000 MT. Year-ending stocks are expected to fall slightly to 25,000 MT.

Cheese: High Prices Could Slow Import and Consumption Growth in 2018

A tighter global milk supply in 2017 and 2018 could push global prices of dairy commodities upward including for cheese. The EU's cheese export offers have reportedly been rising already in 2017, which could slow the EU expansion in Japanese cheese market. FAS/Tokyo projects Japan's total cheese imports (including relatively small volumes of processed cheese) in 2018 to grow slightly to 270,000 MT on continued strong market demand in retail, food service, ready-to-eat foods, and food manufacturers.

Supplemental Tables:

Table 1: Japanese Household Consumption of Milk and Dairy Products (two or more person household)

Unit: JP Yen

	Bread	Milk	Milk Powder	Yogurt	Butter	Cheese	Confectionary	Coffee Beverage	Lactic Acid Bacterial Drinks	Milk Beverage	Margarine	Ice Cream and Sherbet*
2013	27,973	15,211	594	10,856	929	4,376	78,949	4,004	3,441	1,380	856	8,116
2014	29,212	15,176	643	11,458	995	4,721	80,129	4,159	3,503	1,469	770	8,007
2015	30,508	15,434	607	12,134	959	4,936	83,026	4,453	3,702	1,594	799	8,709
2016	30,294	15,518	737	13,496	981	5,194	83,473	83,473	4,080	1,640	702	8,907
% Chg.	4%	2%	-6%	6%	-4%	5%	4%	7%	6%	9%	4%	9%
Jan. - Aug., 2016	20,529	10,320	465	9,104	632	3,362	55,902	55,902	2,687	1,095	470	6,423
Jan. - Aug., 2017	19,999	10,224	450	8,972	662	3,509	55,052	55,052	2,788	1,170	457	6,560
% Chg.	-3%	-1%	-3%	-1%	5%	4%	-2%	-2%	4%	7%	-3%	2%

*Ice Cream and Sherbet are also included in Confectionary Data

Source: Ministry of Internal Affairs and Communications (Statistics Bureau)

	Milk (1 liter)	Powdered Milk (1 gram)	Cheese (1 gram)	Butter (1 gram)	Margarine (1 gram)	Bread (1 gram)
2013	80	305	2,843	503	1,230	44,935
2014	79	309	2,864	512	1,156	44,931
2015	78	292	2,902	458	1,075	45,644
2016	79	331	3,087	472	956	45,111
% Chg.	-2%	-6%	1%	-11%	-7%	2%
Jan/Aug, 2016	53	213	1,980	304	637	30,477
Jan/Aug, 2017	52	196	2,108	318	613	29,921
% Chg.	-0.7%	-8%	6%	5%	-4%	-2%

Source: Ministry of Internal Affairs and Communications (Statistics Bureau)

Table 2: Japanese Fluid Milk Production

Unit: Metric Ton

	2013	2014	2015	2016	% Chg.	2016	2017	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug.	Jan/Aug.	
National Fluid Milk Production	7,508	7,334	7,379	7,394	0%	5,018	4,906	-2%
Hokkaido	3,883	3,811	3,868	3,923	1%	2,662	2,602	-2%
Other Prefectures	3,626	3,524	3,524	3,471	-1%	2,357	2,304	-2%
Hokkaido Share	52%	52%	52%	53%		53%	53%	

Other Prefectures Share	48%	48%	48%	47%		47%	47%	
Fluid Milk Utilizations								
For Drinking	3,975	3,911	3,933	3,992	1%	2,650	2,636	-1%
For Processing	3,477	3,364	3,390	3,349	-1%	2,333	2,237	-4%
Others	57	59	57	53	-7%	35	33	-6%

Source: ALIC

Table 3: Government Subsidy Payment and Eligible Milk Quota for Factory Use

For Factory Use Fluid Milk (Designated Dairy Commodities)					
Japanese Fiscal Year Based (April - March)	Unit Subsidy Payment		Eligible Volume	Actual	Fill Rate
	Yen/Kg.	Type			
JFY 2009	11.85	direct payment	1.95	2.03	104%
JFY 2010	11.85	direct payment	1.85	1.80	97%
JFY 2011	11.95	direct payment	1.85	1.63	88%
JFY 2012	12.20	direct payment	1.83	1.75	95%
JFY 2013	12.55	direct payment	1.81	1.60	89%
JFY 2014	12.80	direct payment	1.80	1.54	85%
JFY 2015	12.90	direct payment	1.78	1.64	92%
JFY 2016	12.69	direct payment	1.78	1.55	87%
JFY 2017	10.56	direct payment	3.50	n.a.	n.a.
For Factory Use Fluid Milk (Natural Cheese)					
JFY 2014	15.41	direct payment	0.52	0.46	89%
JFY 2015	15.53	direct payment	0.52	0.43	83%
JFY 2016	15.28	direct payment	0.52	0.42	82%

Source: ALIC (Compiled by FAS/Tokyo)

Note: JFY 2009 fill rate exceed by four percent. The excess amount became out of the subsidy scheme. No direct payment was made.

In JFY 2017, Japanese government changed the program scheme. Until JFY 2016, amount of direct subsidy payment and the eligible fluid milk quota volume were separately each for production of designated dairy commodities (butter, non-fat dry milk, whole milk powder and evaporated condensed milk and so on) and for natural cheese. From JFY 2017 onwards, scope of the program was expanded to include so called "liquid dairy products (cream and it's by product - non-fat condensed liquid milk) – cream by product). As a result, calculation of the unit subsidy payment was changed to use one unit price at JP 10.56 Yen/Kg. (down from JP 12.69 Yen/Kg. in JFY 2016) and eligible quota volume has been increased to 3.5 million MT (from 1.78 million MT in JFY 2016).

Table 4: Japanese Utilization of Fluid Milk for Drinking Milk Products

Unit: 1,000 Kilo Liters

	2013	2014	2015	2016	% Chg.	2016	2017	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug.	Jan/Aug.	
Total Drinking Milk Products	3,507	3,456	3,456	3,491	1%	2,305	2,329	1%
Regular Milk	3,031	2,989	3,005	3,049	1%	2,010	2,030	1%
Processed Milk	476	468	451	441	-2%	295	299	1%
Milk Beverages	1,367	1,330	1,306	1,236	-5%	832	799	-4%
Fermented Milk	1,003	1,001	1,055	1,105	5%	751	726	-3%
Lactic Acid Bacteria Drinks	157	146	148	140	-5%	97	91	-6%

Note: Processed Milk: low fat, high fat, vitamin and mineral fortified, calcium enriched

Milk Beverages: flavored milk (coffee and fruits flavored)

Fermented Milk: Yogurt etc.

Source: ALIC

Table 5: Japanese Production of Dairy Products

Unit: Metric Ton

	2013	2014	2015	2016	% Chg.	2016	2017	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug.	Jan/Aug.	
Butter	68,303	60,762	64,810	66,210	2%	48,751	43,025	-12%
Cream	113,502	116,911	114,205	111,030	-3%	71,637	74,890	5%
Whole Milk Powder	10,765	12,077	11,862	11,505	-3%	8,295	6,610	-20%
Prepared Milk Powder	22,915	26,659	26,309	27,657	5%	19,332	17,512	-9%
Skim Milk Powder (NFDM)	136,354	119,844	128,610	127,598	-1%	90,441	83,729	-7%
Ice Cream (Unit: kilo liter)	143,433	144,724	134,093	141,767	6%	94,784	104,502	10%

Source: ALIC

Table 6: Japanese NFDM Imports

Unit: Metric Ton

	2013	2014	2015	2016	% Chg.	2016	2017	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug	Jan/Aug	
For School Lunch Program	1,924	1,874	1,803	1,752	-3%	1,335	1,011	-24%
For Feeds	22,361	24,040	25,483	26,701	5%	17,206	17,497	2%
ALIC (Current Access and Additional Imports by ALIC)	4,970	13,665	23,805	4,052	-83%	2,228	12,761	473%
For Other (Ordinary Imports)	3,026	2,947	1,911	1,386	-27%	1,066	2,135	100%
Total NFDM Imports	32,281	42,526	53,002	33,891	-36%	21,836	33,404	53%

Source: ALIC

Table 7: Monthly Ending Stocks of Butter and NFDM

Unit: 1,000 Metric Ton

Butter									
	2013	2014	% Chg.	2015	% Chg.	2016	% Chg.	2017	% Chg.
Jan	21.9	19.1	-13%	17.5	-8%	21.1	20%	26.6	26%
Feb	22.2	18.2	-18%	17.7	-3%	21.7	22%	25.3	17%
Mar	23.5	17.3	-26%	17.8	3%	22.1	24%	24.5	11%
Apr	24.4	17.2	-29%	18.3	6%	23.2	27%	26.0	12%
May	25.8	18.0	-30%	19.6	9%	25.5	30%	28.0	10%
Jun	25.7	18.4	-29%	20.3	10%	27.8	37%	28.3	2%
July	25.0	17.1	-32%	20.2	18%	28.5	41%	28.2	-1%
Aug	24.5	16.6	-32%	20.0	20%	28.4	42%	28.4	0%
Sept	23.0	17.2	-25%	23.4	36%	27.8	19%		
Oct	21.5	15.4	-28%	23.5	53%	27.0	15%		
Nov	20.0	17.1	-15%	20.1	18%	27.3	36%		
Dec	18.2	15.3	-16%	18.8	23%	24.8	32%		
NFDM									
	2013	2014	% Chg.	2015	% Chg.	2016	% Chg.	2017	% Chg.
Jan	45.3	42.0	-7%	40.7	-3%	56.3	38%	49.2	-13%
Feb	46.7	41.0	-12%	43.3	6%	56.8	31%	48.2	-15%
Mar	49.5	40.3	-19%	46.5	16%	56.4	21%	50.4	-11%
Apr	52.1	39.9	-23%	47.6	19%	57.7	21%	51.6	-11%
May	53.3	40.6	-24%	51.2	26%	58.8	15%	54.0	-8%
Jun	53.1	39.2	-26%	51.9	33%	58.7	13%	55.0	-6%
July	50.7	37.2	-27%	51.7	39%	56.9	10%	54.3	-5%
Aug	48.3	35.5	-26%	50.4	42%	55.6	10%		
Sept	44.1	34.7	-21%	51.0	47%	53.0	4%		
Oct	40.3	30.5	-24%	51.2	68%	49.8	-3%		
Nov	38.0	31.8	-16%	50.4	58%	47.7	-5%		
Dec	40.3	34.9	-13%	53.4	53%	49.6	-7%		

Source: ALIC Monthly

Table 8: Average Wholesale Price of Dairy Products YTD

Butter									
Unit: Yen/Kg.									
	2013	2014	% Chg.	2015	% Chg.	2016	% Chg.	2017	% Chg.
Jan	1,224	1,237	1%	1,320	7%	1,363	3%	1,351	-1%
Feb	1,233	1,240	1%	1,320	6%	1,357	3%	1,351	0%
Mar	1,233	1,239	0%	1,319	6%	1,357	3%	1,351	0%
Apr	1,236	1,275	3%	1,375	8%	1,356	-1%	1,373	1%
May	1,237	1,278	3%	1,355	6%	1,356	0%	1,374	1%
Jun	1,237	1,281	4%	1,374	7%	1,356	-1%	1,374	1%
July	1,236	1,295	5%	1,378	6%	1,356	-2%	1,374	1%

Aug	1,237	1,309	6%	1,374	5%	1,356	-1%	1,374	1%
Sept	1,237	1,305	5%	1,374	5%	1,356			
Oct	1,236	1,310	6%	1,374	5%	1,356			
Nov	1,237	1,321	7%	1,374	4%	1,356			
Dec	1,237	1,321	7%	1,367	3%	1,351			
NFDM									
Unit: Yen/25Kg.									
	2013	2014	% Chg.	2015	% Chg.	2016	% Chg.	2017	% Chg.
Jan	15,761	15,727	0%	16,846	7%	17,537	4%	17,537	0%
Feb	15,753	15,736	0%	16,856	7%	17,537	4%	17,537	0%
Mar	15,759	15,779	0%	16,923	7%	17,537	4%	17,537	0%
Apr	15,767	16,323	4%	17,457	7%	17,537	0%	17,788	1%
May	15,763	16,478	5%	17,534	6%	17,537	0%	17,824	2%
Jun	15,749	16,601	5%	17,545	6%	17,537	0%	17,839	2%
July	15,755	16,703	6%	17,581	5%	17,537	0%	17,900	2%
Aug	15,750	16,736	6%	17,577	5%	17,537	0%	17,900	2%
Sept	15,737	16,780	7%	17,574	5%	17,537			
Oct	15,729	16,794	7%	17,548	4%	17,537			
Nov	15,726	16,826	7%	17,548	4%	17,537			
Dec	15,728	16,835	7%	17,537	4%	17,537			

Source: ALIC Monthly

Table 9: Japanese Butter Imports (Volume/CIF) YTD

Unit: Metric Ton (Customs Clearance Basis)

Partner Country	Calendar Year									Year To Date		
	2013	2014	2015	% Chg.	2015 Share	2016	% Chg.	2016 Share	08/2016	08/2017	% Chg.	
World	3,888	10,914	15,794	45%	100%	12,226	-23%	100%	6,747	4,595	32%	
New Zealand	2,997	6,103	11,289	85%	71%	6,013	-47%	49%	2,721	2,396	12%	
Netherlands	149	2,322	1,837	-21%	12%	3,159	72%	26%	2,107	1,300	38%	
Germany	0	633	1,323	109%	8%	1,804	36%	15%	1,365	503	63%	
France	230	170	481	183%	3%	759	58%	6%	288	259	10%	
Switzerland	0	0	74	n.a.	0%	279	277%	2%	115	0	n.a.	
Australia	275	353	118	-67%	1%	102	-14%	1%	101	38	62%	
Others	237	1,333	672	-50%	4%	110	-84%	1%	50	99	98%	
EU-28	394	3,161	3,705	17%	23%	5,770	56%	47%	3,773	2,142	43%	

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Unit: U.S. Dollar per Metric Ton

Partner Country	Calendar Year							Year To Date		
	2013	2014	2015	% Chg.	2016	% Chg.	08/2016	08/2017	% Chg.	
World	4,558	4,458	3,479	-22%	3,619	4%	3,600	5,366	49%	
New Zealand	4,014	3,996	3,215	-20%	3,335	4%	3,324	5,102	54%	
Netherlands	5,742	4,673	3,826	-18%	3,555	-7%	3,420	5,189	52%	
Germany	0	5,065	3,877	-23%	3,496	-10%	3,486	5,172	48%	
Switzerland	0	0	3,887	n.a.	4,021	3%	3,825	0	n.a.	

Australia	5,506	5,002	5,512	10%	4,832	-12%	4,818	4,961	3%
EU-28	8,418	5,270	4,281	-19%	3,868	-10%	3,755	5,656	51%

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Table 10: Japanese Cheese Imports

Unit: Metric Ton (Customs Clearance Basis)

Partner Country	Calendar Year									Year To Date		
	2013	2014	2015	% Chg.	2015 Share	2016	% Chg.	2016 Share	08/2016	08/2017	% Chg.	
World	236,191	231,946	249,285	7%	100%	257,584	3%	100%	172,732	178,157	3%	
Australia	94,428	79,444	89,437	13%	36%	86,001	-4%	33%	59,242	56,645	-4%	
New Zealand	63,881	55,459	57,118	3%	23%	61,295	7%	24%	42,254	42,443	0%	
United States	30,322	51,003	37,043	-27%	15%	28,926	22%	11%	20,581	19,598	-5%	
Netherlands	6,795	7,003	17,711	153%	7%	22,236	26%	9%	12,916	17,673	37%	
Germany	8,599	6,868	12,018	75%	5%	14,262	19%	6%	8,763	10,415	19%	
Denmark	7,676	7,853	10,041	28%	4%	13,765	37%	5%	8,414	9,911	18%	
France	9,080	8,862	8,628	-3%	3%	10,021	16%	4%	6,131	6,705	9%	
Italy	8,123	8,275	8,383	1%	3%	9,045	8%	4%	5,968	6,671	12%	
Ireland	1,624	1,462	2,859	96%	1%	4,110	44%	2%	2,907	3,432	18%	
Argentina	3,367	3,213	3,372	5%	1%	3,607	7%	1%	2,577	1,800	-30%	
Others	2,296	2,504	2,675	7%	1%	4,316	61%	2%	2,979	2,864	-4%	
EU-28	43,245	41,373	61,470	49%	25%	76,916	25%	30%	47,626	56,793	19%	

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Unit: U.S. Dollars per Metric Ton

Partner Country	Calendar Year							Year To Date		
	2013	2014	2015	% Chg.	2016	% Chg.	08/2016	08/2017	% Chg.	
World	4,735	5,122	4,217	-18%	3,791	-10%	3,842	4,102	7%	
Australia	4,115	4,444	3,727	-16%	3,345	-10%	3,388	3,685	9%	
New Zealand	4,029	4,738	3,895	-18%	3,511	-10%	3,601	3,801	6%	
United States	4,814	4,797	4,766	-1%	4,364	-8%	4,268	4,552	7%	
Netherlands	4,800	4,945	3,272	-34%	2,931	-10%	3,086	3,297	7%	
Germany	4,415	4,801	3,299	-31%	2,887	-13%	3,041	3,459	14%	
Denmark	6,689	6,944	4,765	-31%	4,215	-12%	4,371	4,691	7%	
France	8,840	8,490	6,937	-18%	6,339	-9%	6,392	6,223	-3%	
Italy	10,654	10,621	8,628	-19%	8,264	-4%	8,363	8,195	-2%	
Ireland	4,244	5,093	3,923	-23%	3,127	-20%	3,213	3,481	8%	
Argentina	4,107	4,713	3,668	-22%	2,936	-20%	2,956	3,803	29%	
EU-28	7,022	7,247	4,839	-33%	4,262	-12%	4,415	4,535	3%	

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Table 11: Japanese National Dairy Herd Beginning Inventory

Unit: Farm/Head

Year Beginning (As of February 1)	Total Number of Dairy Farms	Total Number of Dairy Cows	National Dairy Cow Inventory					Heifer (Less Than Two Years of Age)	Total Heifer	Animals Raised per Farm
			Dairy Cows (Over Two Years of Age)							
			Total	Cow		Heifer				
	Sub Total	Milking	Dry							
2012	20,100	1,449,000	1,012,000	942,600	812,700	129,900	69,700	436,700	506,400	72
2013	19,400	1,423,000	992,100	923,400	798,300	125,100	68,700	431,300	500,000	73
% Chg.	-3%	-2%	-2%	-2%	-2%	-4%	-1%	-1%	-1%	2%
2014	18,600	1,395,000	957,800	893,400	772,500	121,000	64,400	436,800	501,200	75
% Chg.	-4%	-2%	-3%	-3%	-3%	-3%	-6%	1%	0%	2%
2015	17,700	1,371,000	934,100	869,700	750,100	119,600	64,400	437,200	501,600	77
% Chg.	-5%	-2%	-2%	-3%	-3%	-1%	0%	0%	0%	3%

2016	17,000	1,345,000	936,700	871,000	751,700	119,300	65,800	408,300	474,100	79
% Chg.	-4%	-2%	0%	0%	0%	0%	2%	-7%	-5%	2%
2017	16,400	1,323,000	913,800	852,100	735,200	116,200	61,700	409,300	471,000	81
% Chg.	-4%	-2%	-2%	-2%	-2%	-3%	-6%	0%	-1%	2%
Hokkaido Inventory										
Year Beginning (As of February 1)	Total Number of Dairy Farms	Total Number of Dairy Cows	Dairy Cows (Over Two Years of Age)				Heifer (Less Than Two Years of Age)	Total Heifer	Animals Raised per Farm	
			Total	Cow						Heifer
				Sub Total	Milking	Dry				
2012	7,270	821,900	533,200	495,400	421,200	74,200	37,800	288,800	326,600	113
2013	7,130	806,800	522,100	485,200	413,100	72,100	37,000	284,700	321,700	113
% Chg.	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-1%	-2%	0%
2014	6,900	795,400	506,100	470,300	401,000	69,400	35,800	289,300	325,100	115
% Chg.	-3%	-1%	-3%	-3%	-3%	-4%	-3%	2%	1%	2%
2015	6,680	792,400	496,400	459,700	389,800	69,900	36,700	296,000	332,700	119
% Chg.	-3%	0%	-2%	-2%	-3%	1%	3%	2%	2%	3%
2016	6,490	785,700	508,600	470,900	400,500	70,400	37,700	277,100	314,800	121
% Chg.	-3%	-1%	2%	2%	3%	1%	3%	-6%	-5%	2%
2017	6,310	779,400	496,400	459,400	390,500	68,900	37,000	283,000	320,000	124
% Chg.	-3%	-1%	-2%	-2%	-2%	-2%	-2%	2%	2%	2%
Rest of Nation Inventory										
Year Beginning (As of February 1)	Total Number of Dairy Farms	Total Number of Dairy Cows	Dairy Cows (Over Two Years of Age)				Heifer (Less Than Two Years of Age)	Total Heifer	Animals Raised per Farm	
			Total	Cow						Heifer
				Sub Total	Milking	Dry				
2012	12,830	627,100	478,800	447,200	391,500	55,700	31,900	147,900	179,800	49
2013	12,270	616,200	470,000	438,200	385,200	53,000	31,700	146,600	178,300	50
% Chg.	-4%	-2%	-2%	-2%	-2%	-5%	-1%	-1%	-1%	3%
2014	11,700	599,600	451,700	423,100	371,500	51,600	28,600	147,500	176,100	51
% Chg.	-5%	-3%	-4%	-3%	-4%	-3%	-10%	1%	-1%	2%
2015	11,020	578,600	437,700	410,000	360,300	49,700	27,700	141,200	168,900	53
% Chg.	-6%	-4%	-3%	-3%	-3%	-4%	-3%	-4%	-4%	2%
2016	10,510	559,300	428,100	400,100	351,200	48,900	28,100	131,200	159,300	53
% Chg.	-5%	-3%	-2%	-2%	-3%	-2%	1%	-7%	-6%	1%
2017	10,090	543,600	417,400	392,700	344,700	47,300	24,700	126,300	151,000	54
% Chg.	-4%	-3%	-2%	-2%	-2%	-3%	-12%	-4%	-5%	1%

Note: 99 percent of dairy cows raised in Japan are Holstein breed.

Source: MAFF Livestock Statistics

Table 12: Japanese Current Access and Additional Importation of Designated Dairy Commodities

Unit: Metric Ton

Current Access										
	JFY 2013	Milk Equivalent Volume	JFY 2014	Milk Equivalent Volume	JFY 2015	Milk Equivalent Volume	JFY 2016	Milk Equivalent Volume	JFY 2017	Milk Equivalent Volume
Butter	3,500	43,190	3,000	37,020	2,800	34,552	7,000	86,380	0	0
NFDM	8,768	56,817	9,178	59,473	10,000	64,800	2,000	12,960	13,000	84,240
Dairy Spread	225	2,777	500	6,170	330	4,072	342	4,217	330	4,072
Butter Oil	242	3,666	250	3,788	200	3,030	200	3,030	204	3,091
Whey/Prepared										
Whey	4,500	30,780	4,500	30,780	4,500	30,780	4,500	30,780	6,700	45,828
Subtotal		137,229		137,231		137,234		137,367		137,231
Japan's Additional Importation of Designated Dairy Commodities										
	JFY 2013	Milk Equivalent Volume	JFY 2014	Milk Equivalent Volume	JFY 2015	Milk Equivalent Volume	JFY 2016	Milk Equivalent Volume	JFY 2017	Milk Equivalent Volume
Butter	0	0	10,000	123,400	10,000	123,400	9,829	121,290	13,000	160,420
NFDM	0	0	10,000	64,800	5,000	32,400	2,000	12,960	21,000	136,080

Subtotal	0	0	20,000	188,200	15,000	155,800	11,829	134,250		296,500
Grand Total		137,229		325,431		293,034		271,616		433,731

Note: Milk Equivalent Conversion Rate: Butter: 12.34, NFD: 6.48, Dairy Spread: 12.34, Butter Oil: 15.15 and Whey Powder: 6.84
Source: Agriculture and Livestock Industry Corporation