Required Report: Required - Public Distribution **Date:** October 21, 2022

Report Number: JA2022-0090

Report Name: Dairy and Products Annual

Country: Japan

Post: Tokyo

Report Category: Dairy and Products

Prepared By: Aki Imaizumi

Approved By: Mark Wallace

Report Highlights:

Fluid milk production will be up slightly in 2023 as a greater number of heifers enter milk production. Demand for dairy products in the hotel, restaurant, and institutional food service industries will be pushed by an influx of foreign tourists, although surplus drinking milk will still be diverted to further processing into butter and non-fat dry milk for which ending stocks will finish higher in 2022. In turn, imports of butter and NFDM will rise or remain through 2023.

Fluid milk

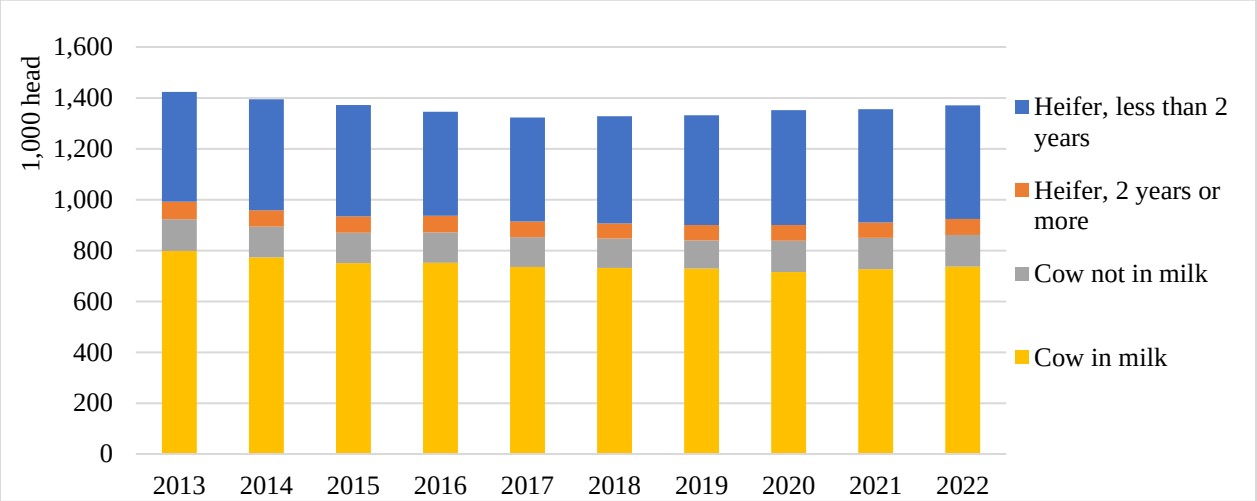
Table 1: Fluid milk Production, Supply and Distribution

Dairy, Milk, Fluid	2021		2022		2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Cows In Milk (1000 HEAD)	726	726	730	737	0	740
Cows Milk Production (1000 MT)	7515	7592	7625	7630	0	7650
Other Milk Production (1000 MT)	0	0	0	0	0	0
Total Production (1000 MT)	7515	7592	7625	7630	0	7650
Other Imports (1000 MT)	0	0	0	0	0	0
Total Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	7515	7592	7625	7630	0	7650
Other Exports (1000 MT)	0	0	0	0	0	0
Total Exports (1000 MT)	0	0	0	0	0	0
Fluid Use Dom. Consumption (1000 MT)	4050	4001	4065	4000	0	4005
Factory Use Consump. (1000 MT)	3420	3543	3515	3585	0	3600
Feed Use Dom. Consump. (1000 MT)	45	48	45	45	0	45
Total Dom. Consumption (1000 MT)	7515	7592	7625	7630	0	7650
Total Distribution (1000 MT)	7515	7592	7625	7630	0	7650
(1000 HEAD) ,(1000 MT)						

FAS/Tokyo projects Japan's fluid milk production in 2023 will be slightly up from 2022 on a greater number of young cows. Fluid milk production in 2022 is also likely to increase year on year. In 2022, dairy farmers generally are trying to hold milk production at current levels, especially in Hokkaido, Japan's largest dairy production area. There farmers are working hard to hold production at a maximum 1% growth beyond JFY 2021. High feed costs and labor overhead also have hampered farm management, which is driving small and medium size farms to exit the market. Income from calf sales slipped in 2022, although milk prices rose midyear. Central and local governments have proposed temporary support payments to lessen impact of higher costs and lower incomes.

National policies in years past have incentivized dairy farmers to increase yard population and milk production (please see JA2021-0102 for details.) According to Livestock Statistics, a publication of the Ministry of Agriculture, Forestry and Fisheries (MAFF), year on year the total number of dairy cows and heifer as of February 1 had increased by 1.1 percent; the number of cows in milk was up by 1.4 percent. (Figure 1). Since late 2021, dairy farmers, especially in Hokkaido, have limited milk production by slaughtering older cows and extending dry cow periods. To balance supply against flat demand, Hokkaido dairy farmers aim to hold their regional fluid milk production in JFY2022 to about 1 percent growth year on year, although according to MAFF, Japan's overall fluid milk production from January to August 2022 was up 1.6 percent from 2021, while Hokkaido's production was up 2.7 percent (Supplemental Table 2).

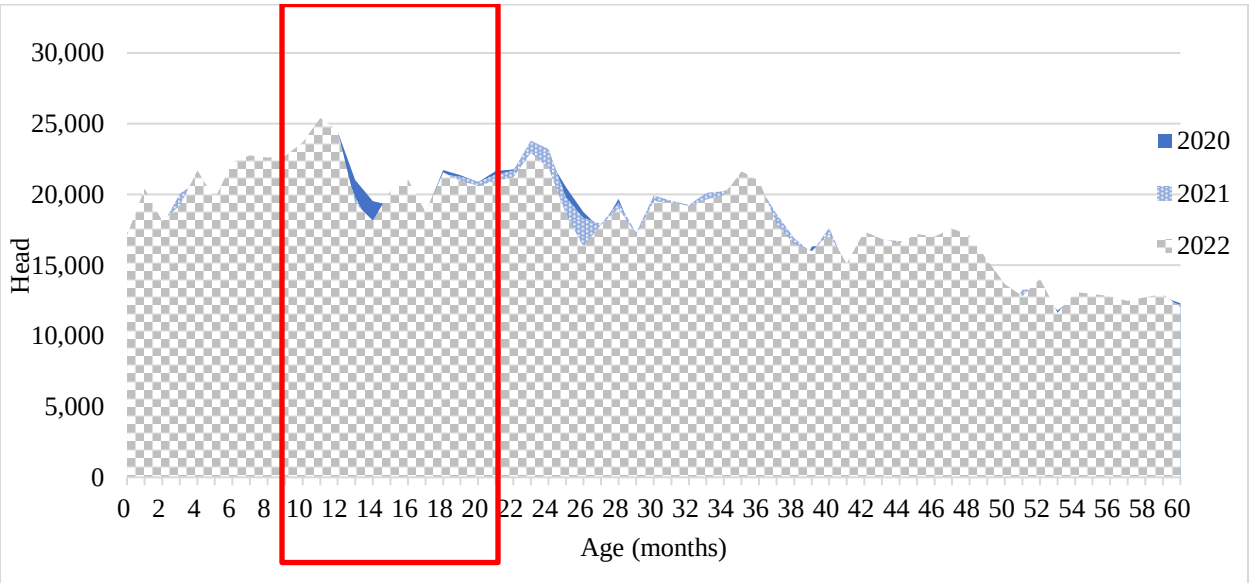
Figure 1: Japan's Dairy Cow Population (as of February 1)



Source: MAFF

According to Japan's National Livestock Breeding Center, the registered number of dairy heifers and cows which will start milking in 2023 is up 2.5 percent from 2022, although the total cow population of the most productive age (2 to 4 years old) in 2023 will decline by 1.8 percent (Figure 2). FAS/Tokyo projects slower production will continue into 2023 until dairy demand recovers.

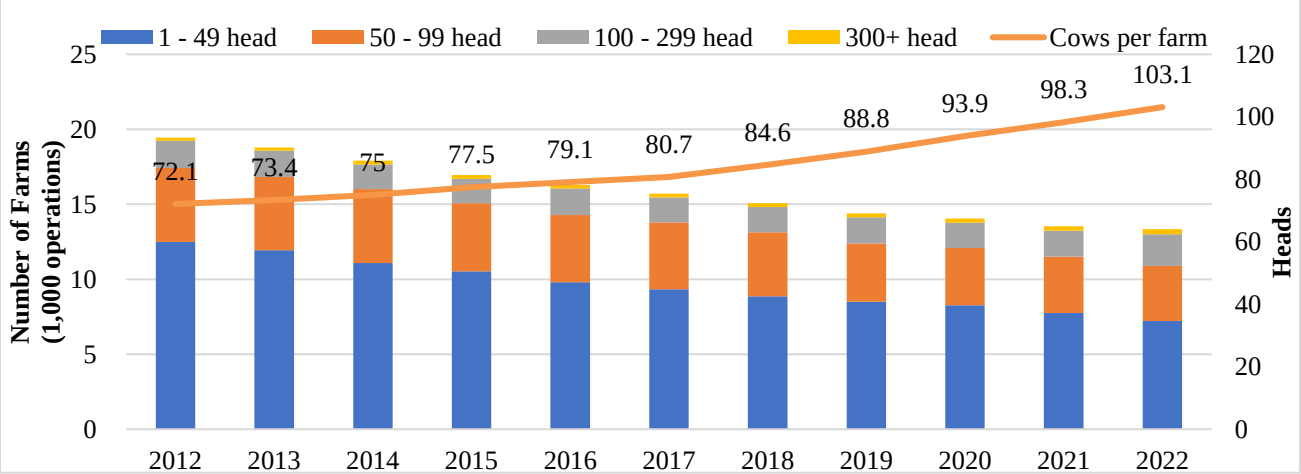
Figure 2: Dairy Cow and Heifer Population by Age (as of July 31 in 2020 – 2022)



Note: Heifer aged 10 – 20 months normally start milking the following year.
Source: National Livestock Breeding Center

The number of dairy farms in Japan continued to decline in 2022, down 4 percent from 2021. Farms smaller than 100 cows declined by 6 percent, but larger farms (100 – 299 cows) actually increased in number, by 24 percent, while farms with 200 or more cows were up by 10 percent (Figure 3). Overall, the average yard population reached 103 heads, up 5 percent year on year.

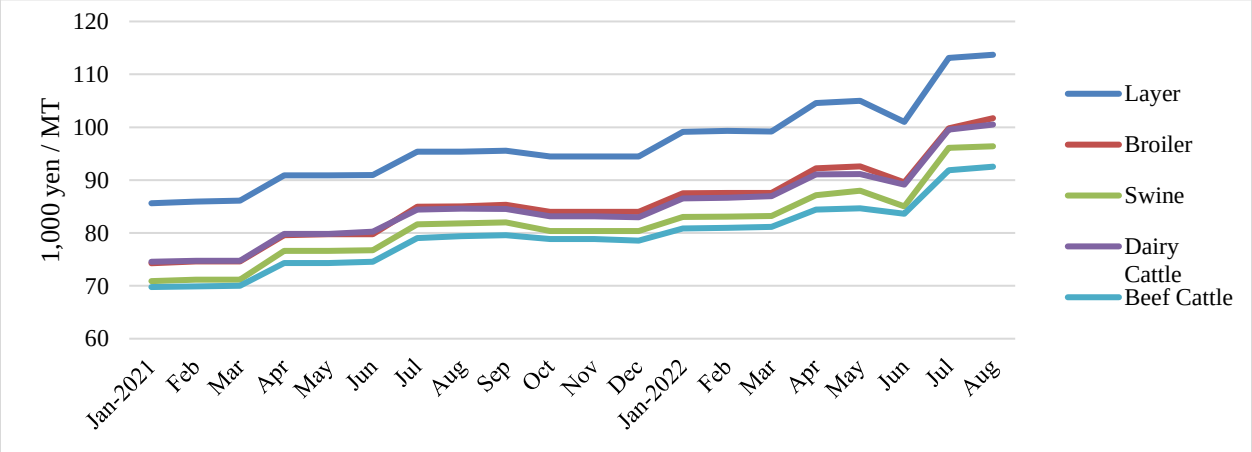
Figure 3: Dairy Farm in Japan



Source: MAFF

Retail prices of compound feed for all animals remained high in 2021 and should remain so through 2022 (Figure 4). Although the Compound Feed Price Stabilization System has been implemented every quarter since Q4 JFY2020, the mechanism used actually reduces payments as the 12-month average price rises, which of course is when farmers would need the payment most. To address this flaw in the feed price stabilization program, MAFF is planning to introduce a new support payment program (see JA2022-0078 for details).

Figure 4: Retail Prices of Compound Feed

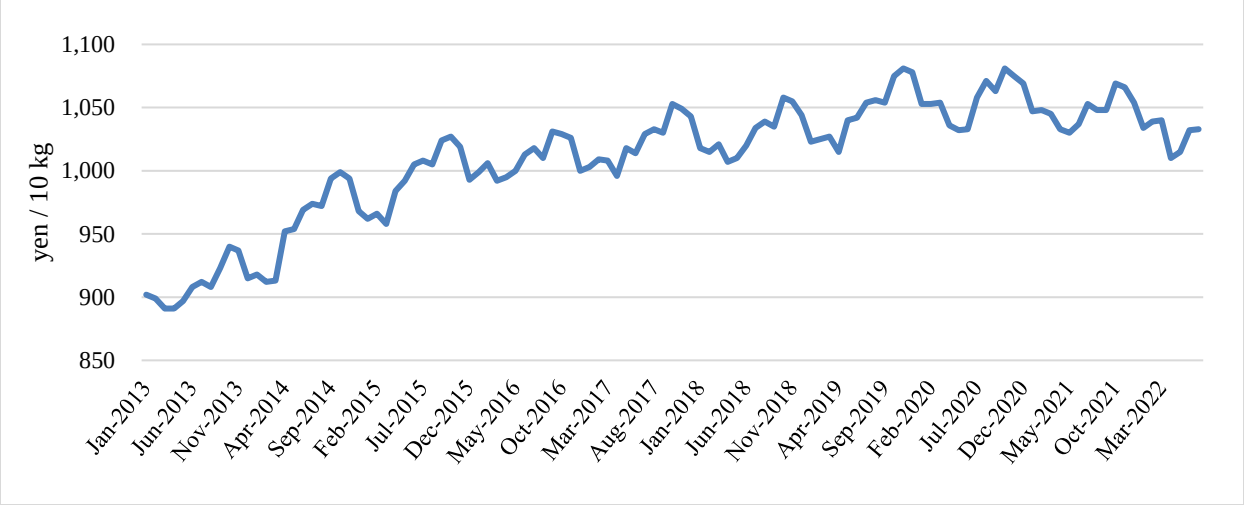


Source: MAFF

The national average pooled milk price* dropped in 2021 after rising for more than 10 years. Lower milk prices in 2022 and 2021, coupled with feed and other input cost hikes, pushed dairy producers to renegotiate the yearly base pooled prices. Regional milk associations did in fact do so: they made the unusual decision to raise the pooled price paid to dairy producers beginning in November.

* National average pooled milk price is an average of the prices paid to farmers for drinking milk and for milk for further processing; the price is mutually agreed by farmers' associations and dairy processors at the beginning of a fiscal year.

Figure 5: Pooled Milk Price (national average)



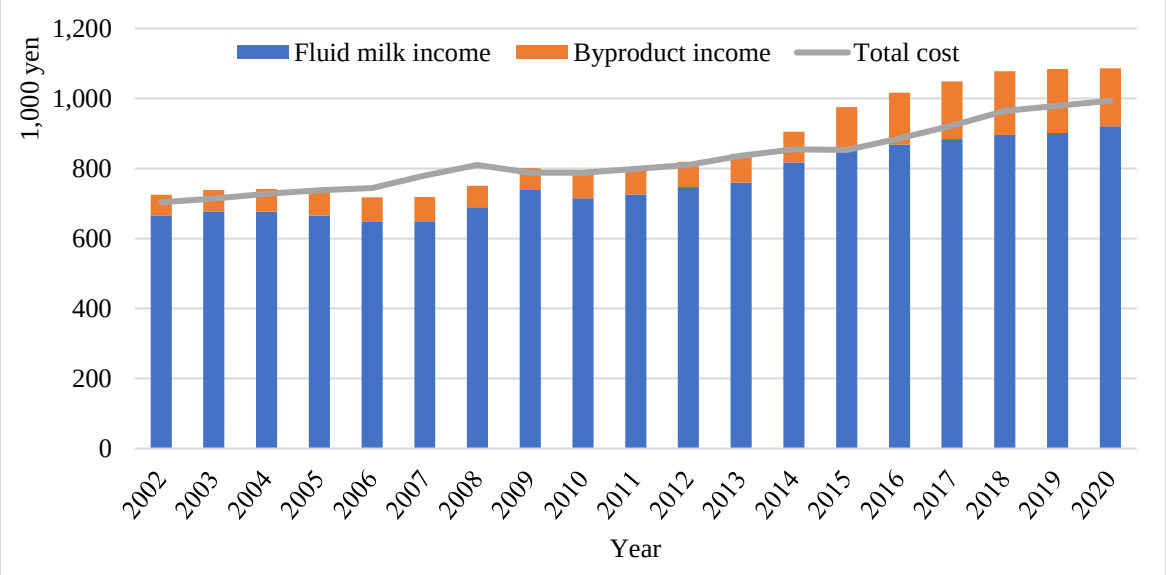
Note: Price includes payments in the Milk for Further Processing Supplemental Payment Program.
Source: MAFF and Japan Dairy Association

Prices of calves, which are about 15 percent of farm revenues (Figure 6), hit historical lows (Figure 7). For dairy and crossbreed calves less than two months of age, the price dropped most. In August, the crossbreed price dropped to 101,000 yen ($696.55, $1 = 145 yen) per head, down 50% from 2021, which was already the lowest price in 10 years. The dairy price dropped to 32,000 yen ($220.68), down 67 percent year on year. Livestock industry analysts suggest beef demand shocks caused by COVID-19 restrictions on hotels and restaurants induced caution among cattle farmers. In turn, farmers purchase of fewer calves ultimately drove calf prices down.

In May, MAFF established a new support program for calf producers in JFY2022. The program gives incentive payments to farmers who implement three or more selected sub-programs to improve their farm management; the payment is made when the monthly average of calf market prices is below a targeted price (see MAFF website for details, Japanese language only). The size of the payment varies depending on the cattle breed and geographic region of production. For example, on October 7, MAFF announced that the market prices of black hair wagyu, brown hair wagyu, and dairy calves were below their targeted prices in September; accordingly, the per head support payment announced for those

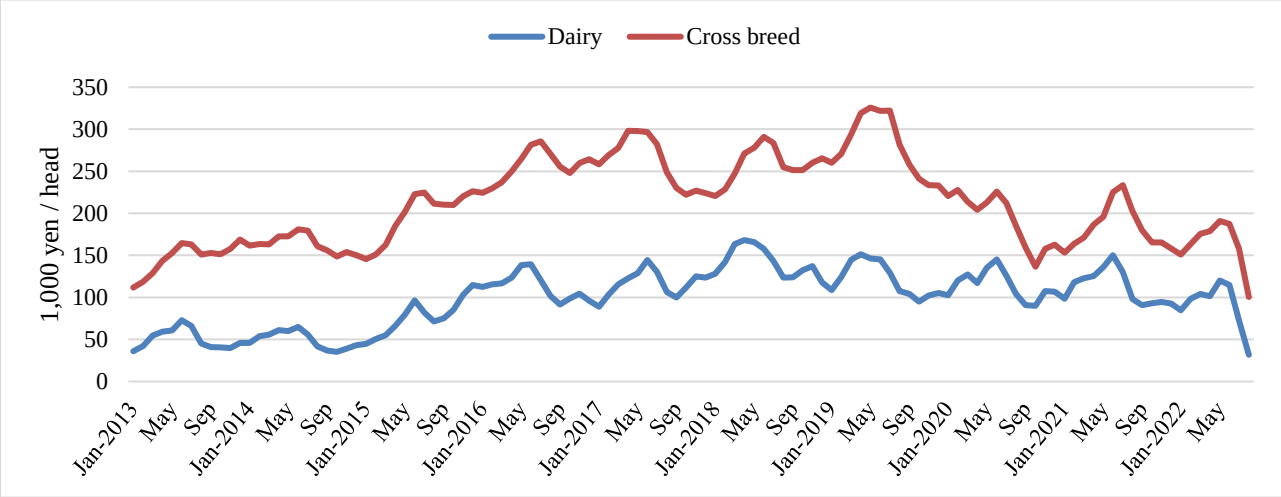
calves will be 10,000 yen ($68.96) for black hair or brown hair wagyu calves, and 30,000 yen ($206.89) for dairy calves.

Figure 6: Average Production Cost and Profit per Dairy Cow



Source: MAFF

Figure 7: Calf Market Price (less than 2 months)



Source: ALIC

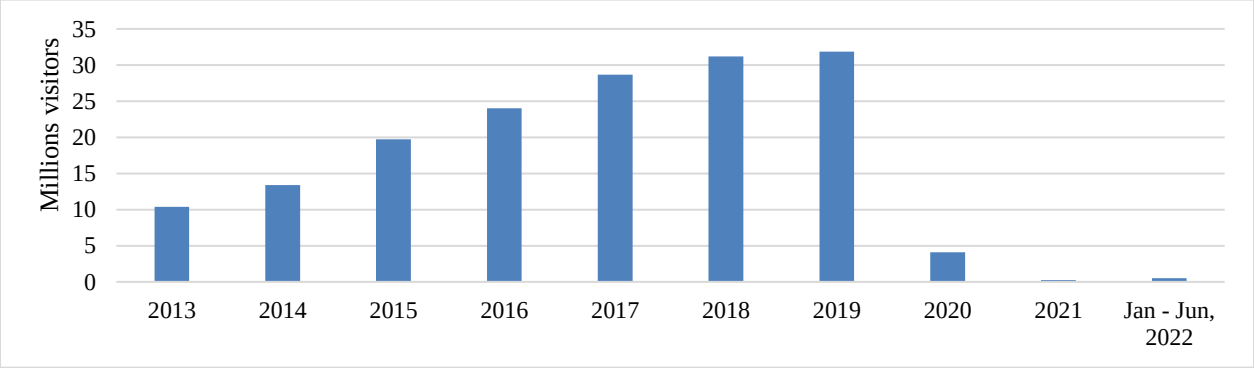
For fluid use milk in 2022, FAS/Tokyo decreases domestic consumption and increases factory use consumption from our previous estimation in Dairy and Products Annual report published in October 2021 (see JA2021-0102): demand for drinking milk is still off norms, especially in hotel, restaurant and institutional (HRI) food service industries, all of which have been hit by the near absence of foreign tourists. In 2021, owing to government restrictions introduced to control spread of COVID-19, foreign

visitors to Japan numbered less than one percent of the total in 2019 (Figure 8). But better days are ahead: On October 7, the government of Japan eased almost all COVID-19-related border restrictions and now both individual tourists as well as group tours are allowed to enter Japan.

Retail consumption of drinking milk in January–July 2022 was flat after a drop of 5% in 2021. (Supplemental Table 1-b)). Dairy processors plan a milk price increase in November and expect a dip in consumption, nevertheless FAS/Tokyo anticipates that fluid milk demand will recover to pre-COVID-19 levels in 2022 and will continue to do into 2023.

FAS/Tokyo projects that overall fluid use domestic consumption will increase in 2023 year on year.

Figure 8: Foreign Visitors to Japan



Source: Japan National Tourism Organization

Butter

Table 2: Butter Production, Supply and Distribution

Dairy, Butter	2021		2022		2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	35	35	37	37	0	37
Production (1000 MT)	71	73	70	75	0	77
Other Imports (1000 MT)	12	12	10	9	0	9
Total Imports (1000 MT)	12	12	10	9	0	9
Total Supply (1000 MT)	118	120	117	121	0	123
Other Exports (1000 MT)	0	0	0	0	0	0
Total Exports (1000 MT)	0	0	0	0	0	0
Domestic Consumption (1000 MT)	81	83	80	84	0	85
Total Use (1000 MT)	81	83	80	84	0	85
Ending Stocks (1000 MT)	37	37	37	37	0	38
Total Distribution (1000 MT)	118	120	117	121	0	123
(1000 MT)						

Given weak demand for fresh dairy products such as drinking milk and cream, FAS/Tokyo projects that Japan's 2023 butter production will continue to increase as surplus fluid milk production is diverted to butter. A similar diversion from fluid milk to butter already is driving 2022 butter production beyond FAS/Tokyo's previous projection.

Butter demand in the HRI and food processing sectors, including confectionary, will meet demand from expected greater numbers of international tourists beginning in late 2022 and running through 2023. Retail sales of butter from January to July 2022 were down in volume year on year but higher than the pre-COVID-19 level (Supplemental Table 1-b). Retail sales of confectionary may drive butter demand in food processing industries.

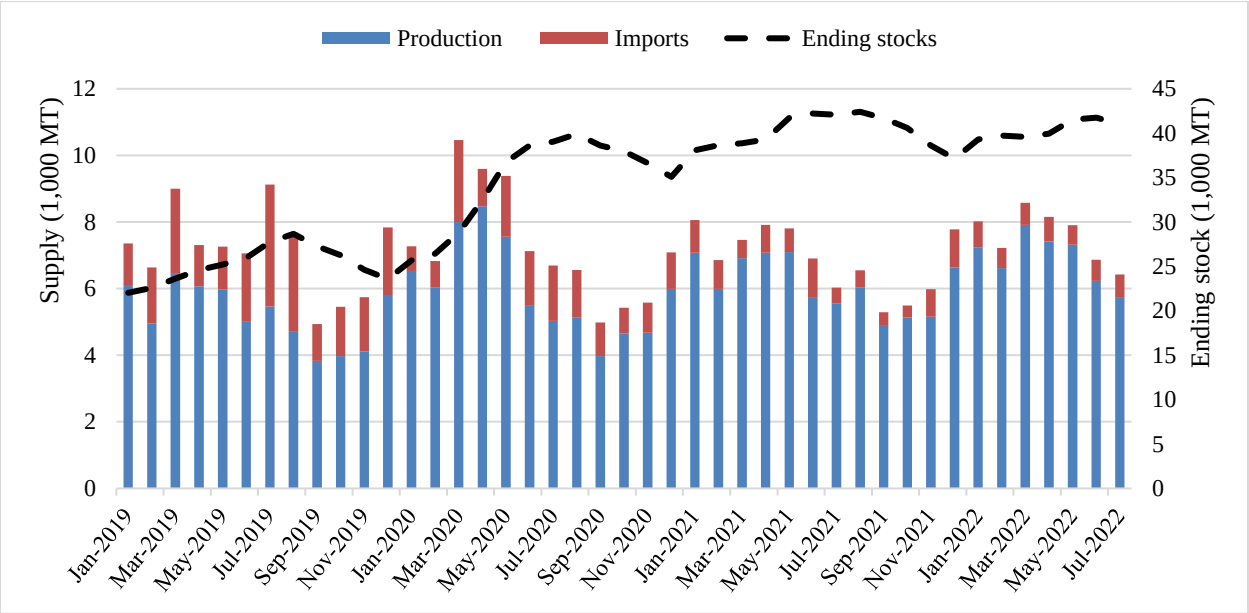
Japan's butter imports in 2023 will stay flat year on year, but 2022 imports will be down from 2021. 2021 imports were down 34 percent year on year, and imports from January to August 2022 are down 22 percent (Table 3). Imported butter is supplied primarily to the food processing industry. Exchange rates and freight costs have made domestic butter more competitive against imports: the average price of imported butter within the ALIC quota was up 21 percent in JFY2021, and up 58 percent on average through the first 5 months of JFY2022. For butter imported outside the quota, the average price was up 33 percent in JFY2021, and up 81 percent for the first 5 months of JFY2022. Large domestic butter stocks and continued surplus production likely also will depress demand for butter imports (Figure 9).

Table 3: Japan's Butter Imports Unit: MT

	Year			January - August		
	2020	2021	Change	2021	2022	Change
Total	***18,183***	***11,935***	***-34%***	***8,522***	***6,621***	***-22%***
Comprehensive and Progressive Agreement for Trans-Pacific (CPTPP)	10,682	8,249	-23%	5,947	4,359	-27%
New Zealand	10,482	8,171	-22%	5,897	4,190	-29%
Australia	199	77	-61%	49	168	243%
European Union (EU)	6,713	3,358	-50%	2,396	2,147	-10%
France	2,511	1,911	-24%	1,246	1,396	12%
Netherlands	2,237	927	-59%	821	263	-68%
Belgium	719	214	-70%	159	279	75%
Germany	881	170	-81%	98	177	81%
United States (US)	432	133	-69%	59	48	-19%
Other	356	195	-45%	120	67	-44%

Source: Trade Data Monitor (TDM)

Figure 9: Japan's Butter Supply



Source: ALIC

Cheese

Table 4: Cheese Production, Supply and Distribution

Dairy, Cheese	**2021**		**2022**		**2023**	
Market Year Begins	**Jan 2021**		**Jan 2022**		**Jan 2023**	
Japan	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Beginning Stocks (1000 MT)	14	14	15	15	0	10
Production (1000 MT)	49	49	50	48	0	50
Other Imports (1000 MT)	288	288	285	278	0	285
Total Imports (1000 MT)	288	288	285	278	0	285
Total Supply (1000 MT)	351	351	350	341	0	345
Other Exports (1000 MT)	1	1	1	1	0	1
Total Exports (1000 MT)	1	1	1	1	0	1
Human Dom. Consumption (1000 MT)	335	335	336	330	0	335
Other Use, Losses (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	335	335	336	330	0	335
Total Use (1000 MT)	336	336	337	331	0	336
Ending Stocks (1000 MT)	15	15	13	10	0	9
Total Distribution (1000 MT)	351	351	350	341	0	345
(1000 MT)						

FAS/Tokyo projects that Japan's cheese production will increase in 2023 year on year as the increasing number of foreign visitors boosts the HRI industry demand for cheese. 2022 production, however, will decrease from 2021 on current weak demand from the HRI industry as suppliers draw down surplus

cheese stocks that resulted after diverting surplus milk. On the other hand, natural cheese is gaining popularity among consumers in Japan and production will grow in 2023.

Despite the negative impact of inflation, FAS/Tokyo projects that total cheese consumption in 2023 will be up from 2022 on boosts from tourism; 2022 consumption will fall short of 2021. Pizza will drive cheese demand in the food service industry. According to Pizza Association in Japan, cheese pizza sales in JFY2021 were about 31 billion yen ($214 million), up 11 percent year on year. However, the absence of foreign visitors held other cheese sector demand flat in the first half of 2022 (see the fluid milk section in this report).

Japan's cheese imports are projected to grow in 2023 to meet growing tourism demand, although 2022 imports remain depressed by inflation and low tourism. According to TDM, the average import price of cheese hiked 25 percent from 2021, which drove imports down by 4 percent in the first 8 months of 2022 (Table 5)

Table 5: Japan's Cheese Imports Unit: MT

	Year			January - August		
	2020	2021	Change	2021	2022	Change
Total	***291,550***	***287,724***	***-1%***	***192,005***	***183,805***	***-4%***
CPTPP countries	131,703	121,431	-8%	84,978	83,443	-2%
Australia	71,965	61,236	-15%	43,005	40,365	-6%
New Zealand	59,069	59,947	1%	41,742	42,944	3%
EU	119,024	124,780	5%	80,356	71,246	-11%
Netherlands	32,157	34,021	6%	21,561	18,534	-14%
Germany	26,322	25,532	-3%	16,509	12,085	-27%
Denmark	16,699	18,171	9%	11,956	11,342	-5%
Ireland	16,702	16,919	1%	11,117	10,733	-3%
France	11,447	12,108	6%	7,469	7,175	-4%
Italy	9,729	10,459	8%	7,020	7,583	8%
US	36,625	36,376	-1%	24,742	27,305	10%
Other	4,198	5,137	22%	1,929	1,811	-6%

Source: TDM

Non-Fat Dry Milk (NFDM)

Table 6: NFDM Production, Supply and Distribution

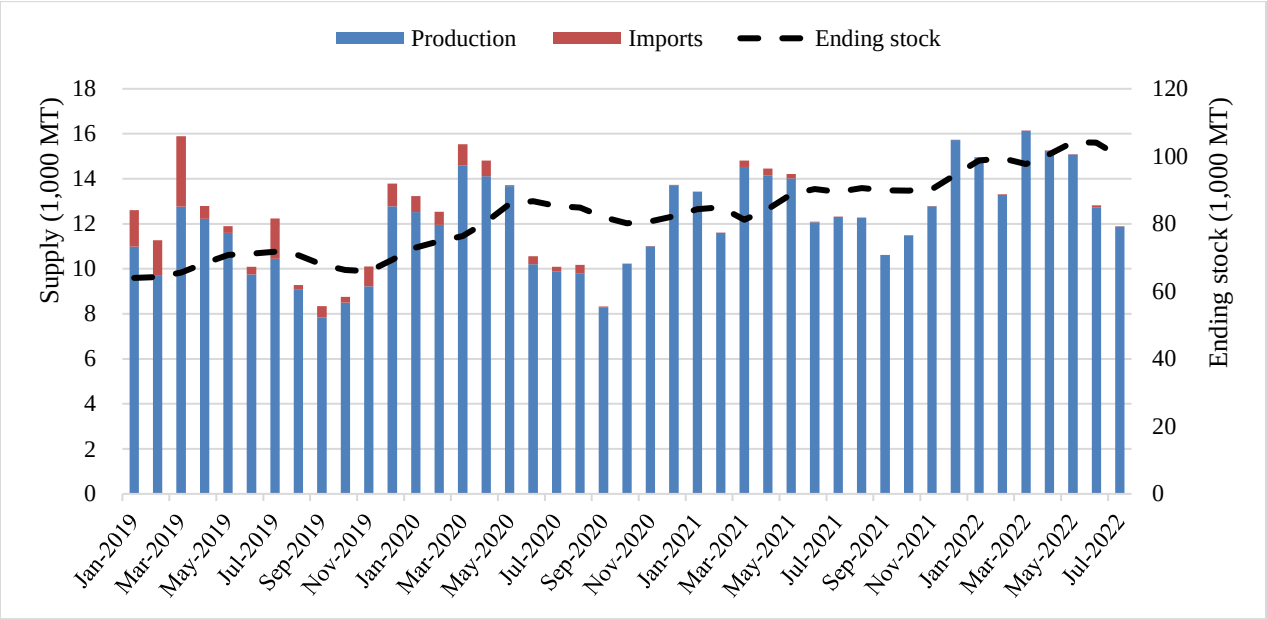
Dairy, Milk, Nonfat Dry	2021		2022		2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	82	82	86	95	0	102
Production (1000 MT)	150	155	150	160	0	165
Other Imports (1000 MT)	22	22	20	20	0	20
Total Imports (1000 MT)	22	22	20	20	0	20
Total Supply (1000 MT)	254	259	256	275	0	287
Other Exports (1000 MT)	1	1	0	8	0	10
Total Exports (1000 MT)	1	1	0	8	0	10
Human Dom. Consumption (1000 MT)	132	143	135	145	0	145
Other Use, Losses (1000 MT)	35	20	35	20	0	30
Total Dom. Consumption (1000 MT)	167	163	170	165	0	175
Total Use (1000 MT)	168	164	170	173	0	185
Ending Stocks (1000 MT)	86	95	86	102	0	102
Total Distribution (1000 MT)	254	259	256	275	0	287
(1000 MT)						

As with butter production, Japan's 2023 Non-Fat Dry Milk (NFDM) production is projected to rise year on year. Although since JFY2020 MAFF has held TRQs for NFDM at the minimum level, 750 MT, in 2022 ending stocks were the highest ever recorded and should rise even higher in 2023.

Industry sources report that some of the dairy products using NFDM enjoy strong sales. For example, retail sales of lactic acid bacterial drinks in the first 7 months of 2022 were up 12 percent up, after 5 percent growth in 2021 (Supplemental Table 1-1). Trendy, health-conscious marketing has driven part of the growth.

Japan's NFDM imports in the first 8 months of 2022 were down 6 percent, even after the 44 percent crash in 2021 (Table 7). As with butter, import costs of NFDM are a factor: prices have spiked in a range from 44 to 70 percent year on year, depending on the import category.

Figure 10: Japan's NFDM Supply



Source: ALIC

Table 7: Japan's NFDM Imports Unit: MT

	Year			January - August		
	2020	2021	Change	2021	2022	Change
Total	***38,825***	***21,789***	***-44%***	***14,414***	***13,593***	***-6%***
CPTPP countries	13,538	10,479	-23%	6,671	7,962	19%
New Zealand	7,223	6,196	-14%	3,361	5,657	68%
Australia	5,089	3,981	-22%	3,008	2,305	-23%
EU	10,879	4,900	-55%	3,173	2,196	-31%
France	2,831	3,863	36%	2,395	1,757	-27%
Netherlands	1,269	690	-46%	674	12	-98%
US	12,273	6,202	-49%	4,365	2,964	-32%
Other	2,135	208	-90%	205	471	130%

Source: TDM

Supplemental Tables

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

1-a) Household consumption in value Unit: JP Yen

	Bread	Milk	Powdered Milk	Yogurt	Butter	Cheese
2018	30,554	14,950	648	13,203	1,067	5,887
2019	32,164	15,174	795	13,157	1,123	6,044
2020	31,456	15,895	626	14,000	1,399	6,788
2021	31,353	14,959	707	13,815	1,362	6,728
% Chg.	0%	-6%	13%	-1%	-3%	-1%
Jan/Jul, 2021	18,552	8,645	435	8,254	798	3,885
Jan/Jul, 2022	18,976	8,617	412	7,808	721	3,688
% Chg.	2%	0%	-5%	-5%	-10%	-5%

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

(cont.)

Confectionary	Coffee Beverage	Lactic Acid Bacterial Drinks	Milk Beverage	Margarine	Ice Cream and Sherbet*
83,916	4,590	3,948	1,945	681	9,670
87,469	5,001	3,992	2,363	672	9,701
85,534	4,798	4,208	2,423	678	10,113
88,195	4,923	4,410	2,576	627	10,148
3%	3%	5%	6%	-8%	0%
50,221	2,839	2,538	1,488	366	5,767
52,944	2,742	2,837	1,397	362	6,132
5%	-3%	12%	-6%	-1%	6%

*Ice Cream and Sherbet are included in Confectionary Data

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

1-b) Household consumption in volume

	Milk (1 liter)	Powdered Milk (1 gram)	Cheese (1 gram)	Butter (1 gram)	Margarine (1 gram)	Bread (1 gram)
2018	76	287	3,488	503	917	44,526
2019	76	330	3,548	532	892	46,011
2020	78	N/A	4,051	650	911	45,857
2021	74	N/A	4,074	639	847	44,345
% Chg.	-5%	N/A	1%	-2%	-7%	-3%
Jan/Jul, 2021	43	N/A	2,335	381	494	26,247
Jan/Jul, 2022	43	N/A	2,235	346	457	25,787
% Chg.	0%	N/A	-4%	-9%	-7%	-2%

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

Supplemental Table 2: Japanese Fluid Milk Production Unit: 1,000 Metric Ton

	2017	2018	2019	2020	2021	% Chg.	2021	2022	% Chg.
	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	2021/ 2020	Jan/ Aug	Jan/ Aug	
National Fluid Milk Production	7,277	7,289	7,314	7,438	7,592	2%	5,088	5,171	2%
Hokkaido	3,893	3,965	4,048	4,154	4,266	3%	2,842	2,921	3%
Other Prefectures	3,384	3,319	3,265	3,285	3,326	1%	2,246	2,250	0%
Hokkaido Share	54%	54%	55%	56%	56%	N/A	56%	56%	N/A
Other Prefectures Share	46%	46%	45%	44%	44%	N/A	44%	44%	N/A
Fluid Milk Utilizations	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	2021/ 2020	Jan/ Aug	Jan/ Aug	% Chg.
For Drinking	3,986	3,999	4,000	4,020	4,001	0%	2,664	2,654	0%
For Processing	3,241	3,243	3,270	3,374	3,543	5%	2,392	2,487	4%
Others	49	46	44	45	48	9%	32	31	-3%

Source: MAFF and ALIC

Supplemental Table 3: Japanese Utilization of Fluid Milk for Drinking Use Category

Unit: 1,000 Metric Ton

	2017	2018	2019	2020	2021	% Chg.	2021	2022	%
	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	2021/ 2020	Jan/ Aug	Jan/ Aug	Chg.
Total Drinking Milk Products	3,539	3,556	3,572	3,574	3,576	0%	2,369	2,366	0%
Regular Milk	3,091	3,142	3,160	3,180	3,194	0%	2,115	2,111	0%
Processed Milk	448	414	411	394	382	-3%	254	255	0%
Milk Beverages	1,178	1,129	1,128	1,108	1,059	-4%	712	698	-2%
Fermented Milk	1,072	1,068	1,030	1,060	1,034	-2%	702	662	-6%
Lactic Acid Bacteria Drinks	124	126	116	117	113	-4%	82	77	-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: MAFF

Supplemental Table 4: Japanese Production of Processed Milk Products Unit: Metric Ton

	2017	2018	2019	2020	2021	% Chg.	2021	2022	%
	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	Jan/ Dec	2021/ 2020	Jan/ Aug	Jan/ Aug	Chg.
Butter	59,808	59,589	62,441	71,520	73,317	3%	51,477	54,571	6%
Cream	115,848	116,246	116,298	110,124	119,711	9%	76,655	78,158	2%
Whole Milk Powder	9,415	9,795	9,994	9,067	8,957	-1%	6,433	7,340	14%
Prepared Milk Powder	26,728	27,773	27,336	28,232	26,157	-7%	17,197	18,813	9%
Skim Milk Powder (NFDM)	121,063	120,005	124,901	139,952	154,890	11%	104,335	111,390	7%
Ice Cream (Unit: kilo liter)	147,708	148,317	146,909	131,543	137,382	4%	91,790	96,072	5%

Source: MAFF

Attachments:

No Attachments