

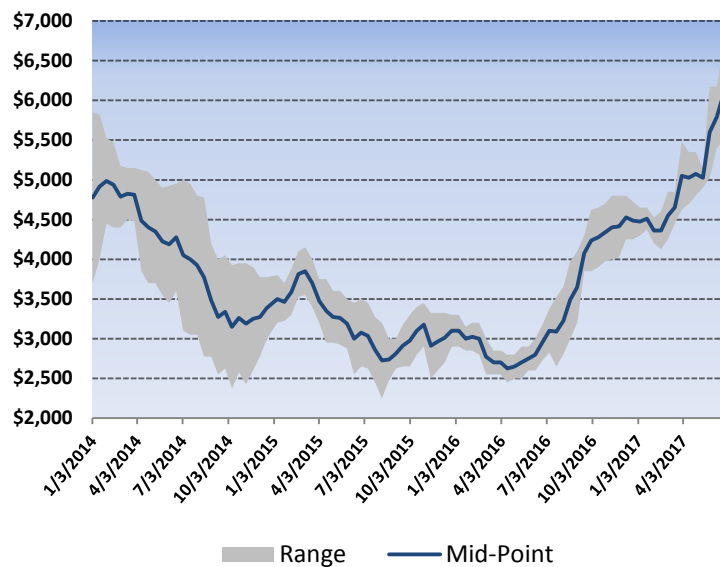
Dairy: World Markets and Trade

July 2017

During the past year, international prices for such dairy commodities as butter, cheese, and whole milk powder (WMP) have staged a significant recovery trading at over \$3,000/ton. While skimmed milk powder (SMP) prices have recovered they remain relatively soft at levels below \$2,000/ton. Import demand has been insufficiently strong to significantly draw down the readily available stocks and exportable supplies in the United States and the EU.

The most notable price movement has been the rapid rise in butter prices which have climbed from a mid-point low of \$2,650/ton FOB for Oceania and EU to a current mid-point price at about \$6,100/ton FOB – a 130 percent increase in the span of little over a year. This rapid upswing is due largely to relatively tight world supplies and steady demand particularly evident in the United States and the EU. Demand growth has been fueled by consumers who now perceive butter as a safer alternative to vegetable oil substitutes such as margarine.

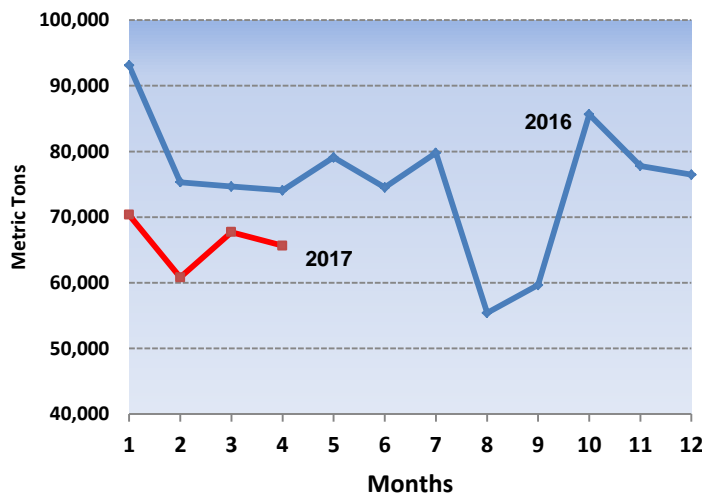
Butter Prices - Oceania and EU FOB \$/MT



The price situation for butter is unlikely to change in the near future if current shipments are an indication of available supplies to the international market. Exports from the top five major

exporters – New Zealand, the EU, Belarus, Australia, and the United States – through April 2017 are lagging behind last year’s pace by 17 percent. This drop-off has been particularly evident in the EU, which is down 28 percent or 25,000 tons. In the period 2012-16 exports of butter from these major suppliers had been growing at annual rate of 4 percent.

Monthly Shipments of Butter from Major Exporters



While high prices of butter will be welcomed by dairy farmers this will likely induce further production of butter and it’s co-products, mostly in the form SMP. This will add to SMP supplies and likely temper any recovery in prices.

Dairy Production and Trade Developments

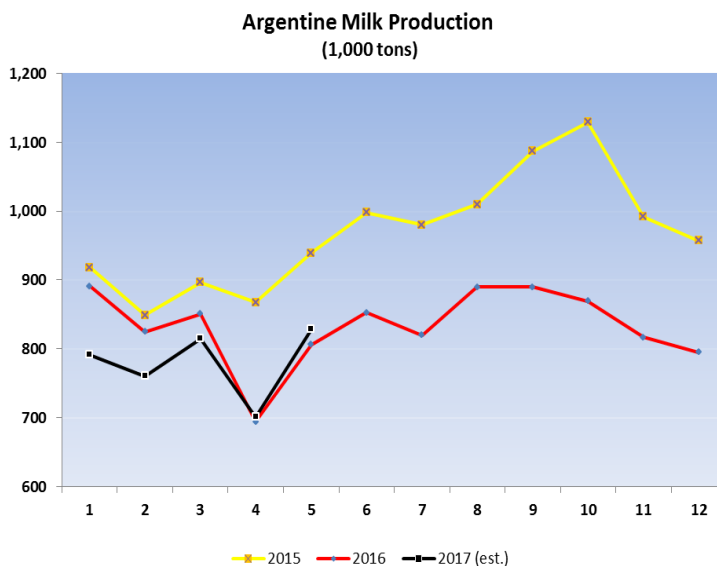
Milk Production: Forecast Summary

Milk Production Summary for Major Exporters – Million Tons

	2016	Dec. 2017 Forecast	July 2017 Forecast	Forecast Change %
Argentina	10.2	10.6	10.4	-2%
Australia	9.4	9.5	9.1	-4%
EU-28	151.0	152.5	151.3	-1%
New Zealand	21.2	21.6	21.9	1%
United States	96.4	98.3	98.1	0%
Major Exporter Total	288.2	292.5	290.8	-1%

Fluid Milk:

- In 2016, dairy farmers in **Argentina** were devastated by a combination of poor weather and economic conditions which resulted in a 12 percent drop in milk output to 10.2 million tons – the lowest level since 2008.

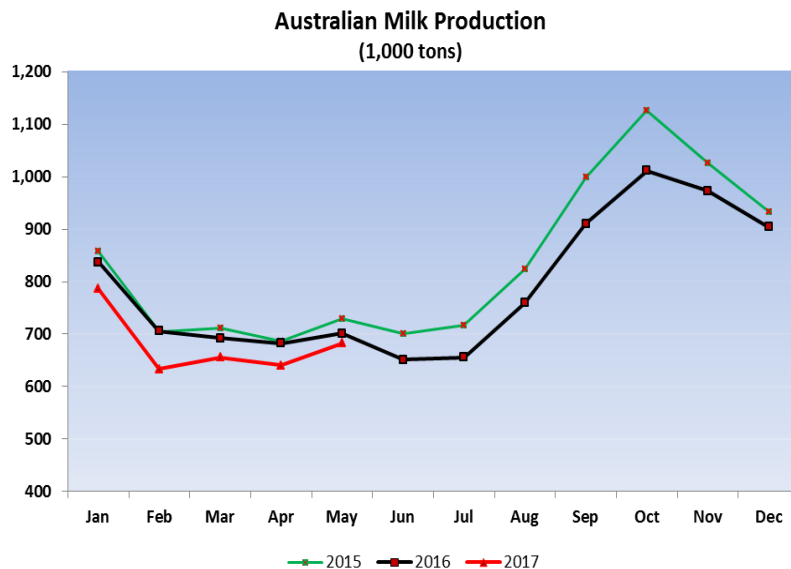


There are signs of a modest recovery underway in 2017. In the first quarter of 2017, milk production was negatively impacted by above-average precipitation and higher production costs which reduced milk output by 8 percent in comparison to the same period in 2016. However, in the second quarter, there appears to be a reversal as April and May estimated milk production is up 1 percent and 3 percent, respectively over 2016.

Although milk output for the year through May 2017 is still down 4 percent year-over-year, farmers are expected to continue to raise output as milk prices are significantly higher than in 2016 – up 59 percent for April. Nevertheless, production costs remain a challenge due to the high inflation rate and many farmers are operating under negative margins. Already, it is estimated that some 500-600 dairies closed during the 2016 season. For 2017, the milk production forecast is

revised down 2 percent to 10.4 million tons which represents a modest increase of 2 percent over 2016.

- Although there was plentiful rainfall and good pasture conditions in the first quarter of 2017, milk production in **Australia** through May was down 6 percent year-over-year. This was largely due to lower farm gate prices, which has led to a contraction in the dairy herd and a drop in yields.



For the balance of the year, weather conditions and prices will play a key role. During June, Australia had the second-driest month on record with national rainfall recorded at 62 percent below the long-term mean. However, the soil moisture level in the key dairying state of Victoria was noted as being average except for a portion of eastern Victoria which was below average. In the latest update (June 2017) by the Australian

Bureau of Meteorology, the outlook is for the increased likelihood of below average rainfall in the July to September period for the key dairy areas in Southeastern Australia. For 2017, the milk production forecast is revised down 4 percent to 9.1 million tons, itself a 3 percent cut from the previous year.

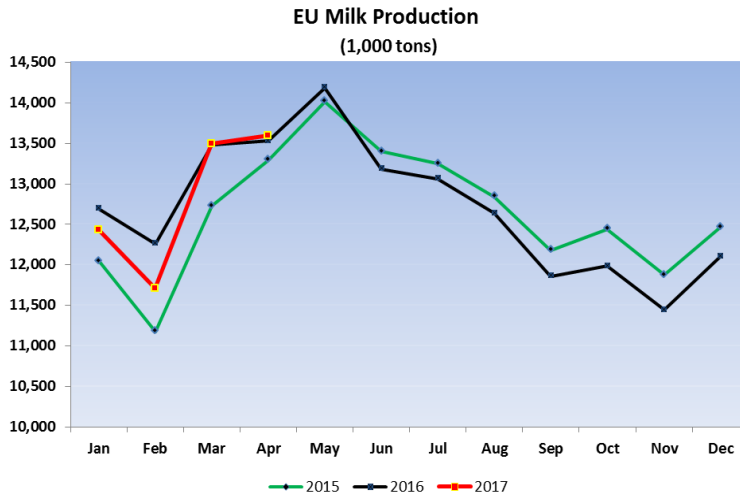
Exports of milk, primarily in the form of Ultra High Temperature (UHT) milk reached a record 192,000 tons in 2016 with about 37 percent of the volume being shipped to China. For 2017, Australian shipments of fluid milk are expected to drop by 1 percent to 190,000 tons due largely to weaker import demand from China and other Asian countries such as Singapore and Hong Kong.

- The milk cow herd in **China** is expected to shrink by 6 percent in 2017, however, consolidation, improved genetics, and production facilities are forecast to improve yields. Milk prices are anticipated to improve this year which coupled with lower feed cost particularly for corn silage are anticipated to favor higher milk production. As a result, the milk production forecast from December is revised up by 1 percent to 35.5 million tons. This is a decline of 1 percent from 2016.

Imports of fluid milk by China – the largest importer in the world – through April 2017 are trailing last year’s pace by 15 percent as domestic demand appears to be reaching saturation levels in major cities. Consequently, the import forecast adjusted down by 28 percent to 575,000 tons; a decline of 10 percent from 2016. Nevertheless, China’s consumption of milk, estimated at 34.1 kg per capita, is well below the world average implying that there is

room for future growth.

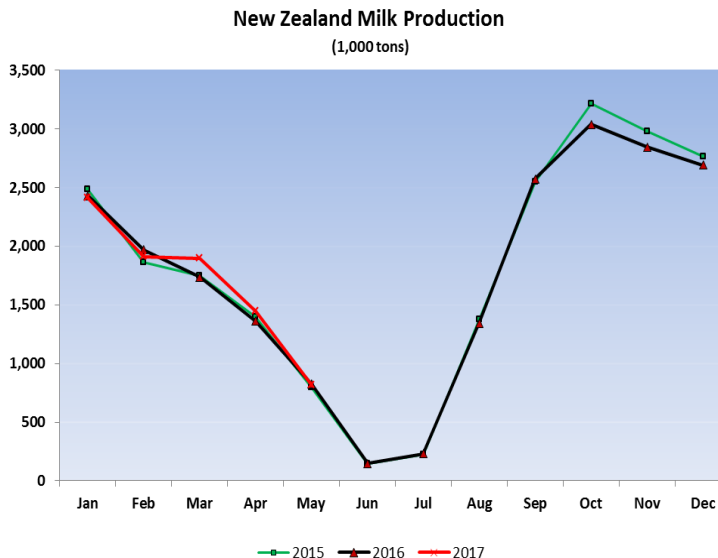
- **EU** milk production in the first quarter of 2017 was off to a slow start with output down 2 percent in comparison to the same quarter in 2016. This was due to the low farm gate prices in the latter half of 2016 and the implementation of a voluntary program equivalent to U.S. \$168 million which compensated farmers for producing less milk. This program was in effect in the last quarter of 2016 and early 2017. Forty-four thousand farmers participated in the program, reducing milk production by 851,700 tons. Milk prices started to recover in



early 2017 with the average price of milk in March set at €33/100 kg or about 17 percent higher over the same month in 2016; this provided an incentive for farmers to raise output. Consequently, milk production has been edging upwards early in the second quarter with cumulative production through April down just 1 percent over the comparable period in 2016. Despite this recent modest recovery, milk

output for the year is projected to grow only marginally as farmers are expected to adopt a conservative approach with respect to herd expansion until prices demonstrate solid increases. Consequently, the EU milk production forecast is down 1.2 million tons to 151.3 million tons, fractionally higher than in 2016.

- Despite low dairy prices in 2016 that contributed to a 2 percent decrease in milk output, **New Zealand** milk production is set to rebound and reach record levels in 2017. The 2017 forecast is adjusted up 1 percent or 300,000 tons to 21.9 million tons; a 3 percent increase



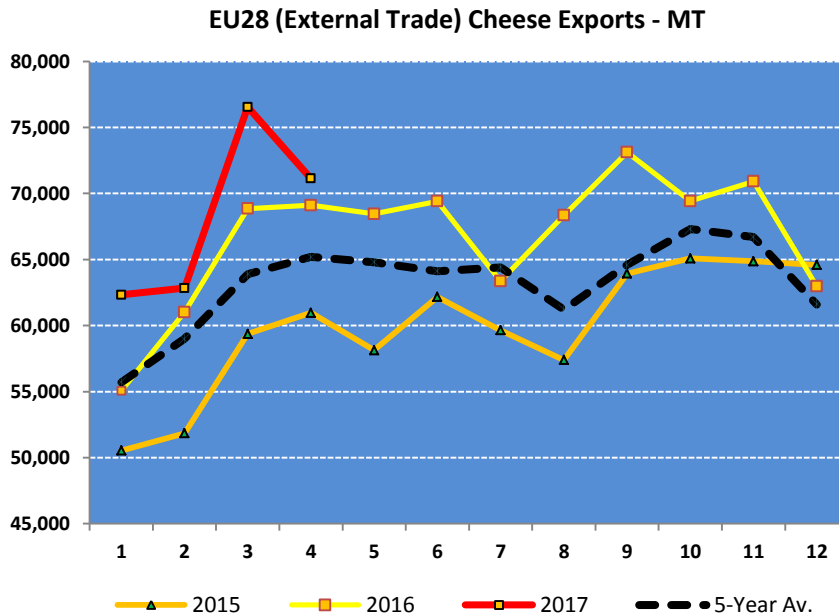
over 2016. This is due to a number of factors. Cow numbers are raised reflecting in part a larger 2016 herd. For 2017 the herd is raised 100,000 head from the last forecast. Weather conditions during February to April have been favorable for pasture growth. The herd is in good condition. Finally, milk prices for the current 2016/17 year are estimated at NZ\$6.15/kg, more than 50 percent higher than the

previous year. The outlook is positive with the initial milk price for the upcoming 2017/18 season forecast to increase to NZ\$6.50/kg. All these factors combined are anticipated to set the stage for a strong spring production season starting in September. Already milk production through May 2017 is running 2 percent ahead of the comparable period in 2016.

- Although the dairy herd in **Russia** is expected to decline by 3 percent in 2017, milk yields are anticipated to rise as the larger industrialized commercial farms improve livestock genetics and farm management practices. Reportedly, milk output in these newer commercial operations reportedly grew by 4 percent in the first quarter while milk yields increased by 5 percent. For 2017, the outlook remains favorable as milk prices in the first quarter of this year were higher than anticipated while feed prices were lower than expected. This improvement in producer’s milk margins is likely to continue for the balance of the year. However, domestic demand remains weak and there is some uncertainty regarding the distribution of agricultural subsidies. For 2017, the milk production forecast is raised 2 percent to 30.7 million tons. This is about 1 percent higher than 2016 milk output and will likely impact imports of fluid milk which are expected to reach 300,000 tons. This is 45,000 tons less than originally forecast and represents a year over year drop of 8 percent.

Cheese:

- The **EU** cheese production forecast for 2017 is raised marginally to 9.91 million tons largely due to gains in export demand and to a lesser extent domestic consumption. Although milk output is less than previously anticipated, the growth in cheese production is expected to come at the expense of WMP, butter, and SMP production. Shipments of cheese through April are up 7 percent year over year with the United States and Japan accounting for 16 percent and 12 percent share, respectively. The export forecast was adjusted up to reach a record 855,000 tons and represents a 7 percent rise over 2016.



- Despite rising competition on global markets, **U.S.** cheese exports have been resilient in the face of strong EU competition and shipments to such key markets as Mexico, South Korea, and Japan remain strong. Shipments through May are up an impressive 22 percent with nearly half of the exports destined to Mexico (31 percent) and South Korea (16 percent). Given continued favorable prices the export forecast is raised by 63,000 tons to 349,000 tons. Currently, U.S. cheddar remains competitive as the Oceania mid-point price of cheddar is about \$4,000 per ton while the U.S. block cheddar price on the Chicago Mercantile Exchange is approximately \$3,700 per ton.

In a surprising turnaround, after several years of rising imports, U.S. imports of cheese have slowed considerably this year and the import forecast is revised down 16 percent from December to 140,000 tons. This is a substantial drop from 2016 when imports reached 165,000 tons. As noted previously, U.S. cheese is price competitive on world markets and it is likely that the U.S. market is less attractive particularly for EU exporters which are traditionally the major suppliers.

- Final figures for 2016 indicate that **New Zealand** cheese exports were stronger than initially forecast with some 355,000 tons exported for the year. For 2017, despite an upward revision in the forecast – up by 10,000 tons – cheese exports are expected to be lower than in 2016, totaling 350,000 tons for the year. Shipments of cheese have been off to a slow start with volumes exported through May down 2 percent year over year. While there have been strong gains in such markets as Australia and China, this has been offset by declines to major markets like Japan and the United States. Given that New Zealand cheese prices are currently less competitive this suggests that available exportable supplies may be low. As the new milk production season gets underway, higher milk volumes will likely lead to an acceleration of cheese exports. This is expected to offset to some extent the slower sales pace earlier in the year.

Butter:

- Butter prices in the **EU** have been rising at a fast pace, jumping by nearly 45 percent through July and over 90 percent in comparison to a year ago. Despite these high domestic prices ranging from €5,800 per ton (US \$3.00/lb) in France to over €6,000 per ton (US \$ 3.12/lb) in Germany, demand remains relatively stable. From the consumer's perspective, butter is perceived as a healthier alternative to vegetable oil substitutes. These strong prices would be expected to promote butter production, which has been lagging last year's pace. Output through April was down 5 percent in comparison to the same period last year; production for the year is expected to be fractionally lower.

The situation in the EU is not expected to change significantly for the remainder of the year as milk supplies will remain a limiting factor. For 2017, the butter production forecast is lowered by 30,000 tons reflecting relatively weak first half production. Lower production coupled with steady domestic demand, is likely to limit available exportable supplies. As an indicator, butter stocks in the private storage scheme in mid-April totaled 1,370 tons in comparison to the same time last year when they stood at 79,000 tons. Although global

prices have been extremely high, they have not been sufficient to divert large quantities of butter to the export market. Shipments through April 2017 are down 28 percent year over year with major losses to such import markets as China, Saudi Arabia, and Egypt. Consequently, the export forecast is cut by 27 percent to 175,000 tons – down 20 percent from last year.

- In **Russia**, demand appears to be following global trends as butter consumption in 2017 is slated to grow 5 percent. Although domestic butter processors have been benefitting from improved margins which has diverted milk from cheese to the butter churns, output is forecast to grow by only 2 percent over last year which will not be sufficient to satisfy domestic consumption. As a result, imports are expected to cover the shortfall. Already imports this year through April are up 19 percent year over year aided in part by a stronger ruble. For 2017, the import forecast is revised up 15 percent to 115,000 tons which is also up 15 percent from 2016.

Traditionally, Russia has relied primarily on Belarus as the major supplier of butter. In 2016, Belarus accounted for approximately 72 percent of Russia's imports. However, Belarusian butter production is projected to decline this year and Russia has imposed trade restrictions on some Belarusian plants. Consequently, imports of New Zealand butter have grown significantly and are up 244 percent through April accounting for nearly one third of the import market.

- The **New Zealand** butter production forecast is raised by 5 percent to 610,000 tons as more milk is expected to be available to produce butter in the upcoming season. The export forecast is also revised up by 12,000 tons to 582,000 tons as shipments are projected to rise towards the end of the year as butter production ramps up. Although shipments through April lagged last year's pace by 11 percent, there has been growth to such markets as China, Philippines, Australia, and Russia.

Skimmed Milk Powder:

- On February 1, 2017, **Canada** implemented a new dairy ingredient class which is resulting in Canada being able to remove its domestic surpluses of skimmed milk solids by aggressively pricing domestically produced milk proteins so as to promote use of local supplies over imported milk proteins. This will also allow Canada to export SMP that previously required direct subsidies to compete in world markets.

A key component of the Canadian dairy industry regime is the use of milk production quotas to restrict the milk supply and thus raise dairy prices to consumers. This effectively transfers income to dairy farmers ensuring that they receive prices well above world averages. These milk quotas are set by estimating the volume of milk needed to supply the domestic market for fluid milk, cheese, butter, and products requiring milk fat. In effect, quotas are set on the basis of milk fat demand. Since skim solids are a coproduct of many of these products, particularly butter, this creates a structural surplus of skim solids that are largely dried into SMP. Prior to the introduction of the new ingredient Class 7, the

Canadian Dairy Commission (CDC) purchased surplus skim solids and either disposed of them via the export market or by issuing class 4(m) permits for use as animal feed. In 2015-16 (Aug-July), the CDC exported 12,400 tons of surplus SMP and channeled a further 65,600 tons to the domestic feed market. In addition, the CDC exported a range of skimmed milk products, e.g., milk protein concentrates, equivalent to 15,900 tons of surplus SMP 1/.

The problem that Canada has faced is that domestic demand for milk fats has outstripped the demand for skim solids. This imbalance is likely to persist for the foreseeable future. In one study, it was estimated that Canada's structural surplus of skim solids could grow from 79,200 tons in 2014-15 (Aug/July) to 105,500 tons in 2021-22 (Aug/July) if domestic demand for butterfat grew by 2 percent annually 2/. In the past, approximately half of this surplus would be exported and the balance would be disposed in the domestic feed market. However, under the Nairobi Agreement, all WTO participating nations agreed to eliminate export subsidies by December 2020. Consequently, Canada will no longer be able to subsidize the removal surpluses of skim solids via the export market.

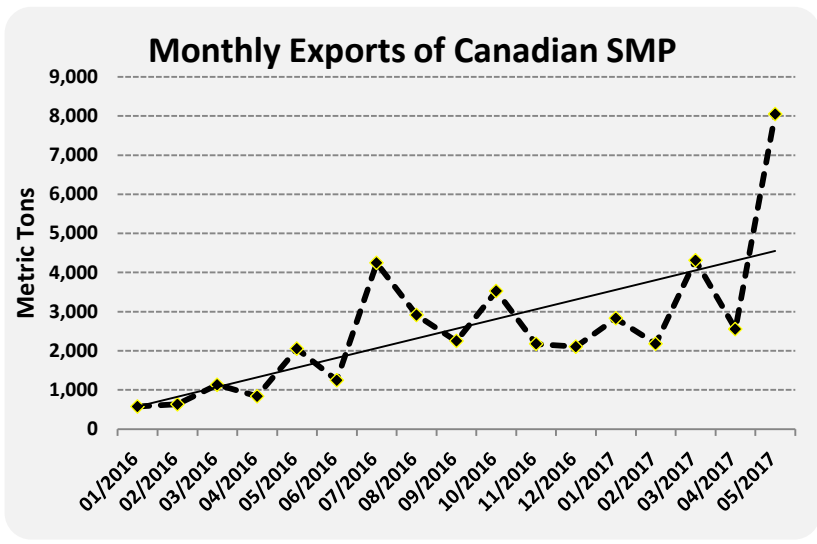
Although the CDC has not publicly revealed the pricing mechanisms used in the new Class 7 Ingredient Class, it appears that the CDC is setting prices for Class 7 (and the provincial dairy marketing boards are subsequently adopting those prices) based on the lowest price point of SMP and WMP in the price ranges published for SMP and WMP in Oceania, the United States, and the EU. This effectively ensures that Canadian SMP will always be competitive. The immediate effect is twofold; first the displacement of imports of skims solids in favor of domestic supplies and secondly; the ramping up of exports of SMP that Canada believes will not be subject to any subsidy restrictions.

A further benefit for Canada is that since the use of Canadian milk solids priced at Class 7 prices are restricted domestically – particularly for the production of cheese – the price impact of low SMP world prices on Canadian farmers will be limited. This also means that Canada will no longer need a support price for SMP, although the butter support will continue to be used to support dairy farmers. In fact, the support price of butter could be raised to compensate for low prices of skim solids on the global market.

The acceleration in exports of Canadian SMP has become particularly evident since April 2016 when the Dairy Farmers of Ontario first created an ingredient class milk classification that was essentially the predecessor to the nationwide Class 7 implemented by the CDC. In 2016, Canadian exports of SMP totaled 23,700 tons with the bulk of SMP shipped to Egypt, Mexico, and the Philippines. For 2017, Canadian exports of SMP are currently forecast to expand by about 80 percent to reach 45,000 tons. Exports of SMP through May 2017 are up 281 percent year-over-year and nearly total 20,000 tons. Looking forward, assuming Canada expands its milk production quota and the skim milk surplus grows, total Canadian exports of SMP could well surpass the current 2017 forecast of 45,000 tons particularly if disposal via the domestic feed market is gradually limited.

1 Canadian Dairy Commission Annual Report 2015-16

2 The Implications of Existing Milk Marketing Trends in Canada: A Counterfactual Analysis May 2016 Agri-Food Economic Systems.



The implementation of the CDC Ingredient Class 7 on U.S. dairy exporters is expected to have two major impacts. First, U.S. exports of Ultra-Filtered (85% protein) milk to Canada and its dry counterpart, milk protein isolates, are expected to continue to drop significantly. Secondly, U.S. exports of SMP are now more likely to face increased competition in such high-growth markets

as Mexico, Philippines, Indonesia, and Vietnam where Canada has recently shipped product. Mexico appears to be the market where U.S. exporters will be most vulnerable to Canadian competition.

Other exporting nations have noted concerns over Canada’s new Class 7. The soon-to-be implemented Comprehensive Economic and Trade Agreement (CETA) between the EU and Canada should in principle give the EU greater access to the Canadian dairy market particularly for cheese. Equally, Canada will likely have greater access to the EU. Conceivably, given the price mechanisms Canada appears to be employing, Canadian exporters could export SMP to the EU.

- The EU production forecast for SMP is cut by 1 percent to 2.3 million tons as SMP output through April is down 10 percent year over year. Milk supplies early in the year were limited and mostly channeled into the production of cheese. However, the export forecast remains unchanged at 675,000 tons as exports through April are up 13 percent.

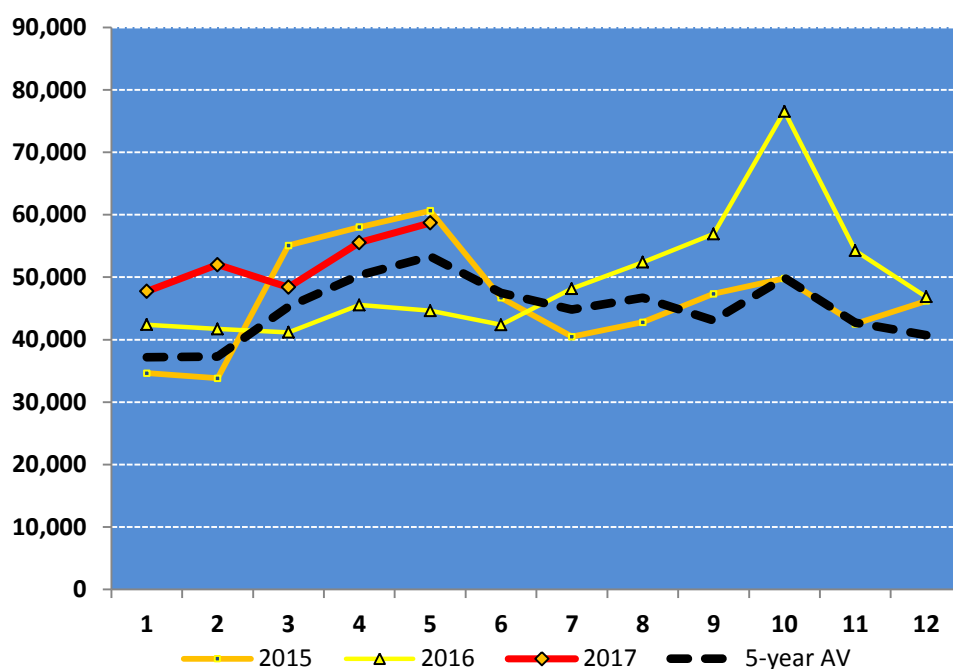
SMP prices have been above intervention levels, but the EU has been unable to dispose of the substantial intervention stocks. At the end of April, EU SMP intervention stocks totaled about 352,000 tons – the highest level since early 1992. While the EU Commission has held a number of tenders offering these stocks only a minimal quantity – 40 tons – was sold in December 2016. These tenders have been strongly opposed by EU farmers who fear that these sales could undermine milk prices. An additional issue is that the bulk of these stocks are over a year old which tends to devalue the product as processors prefer relatively fresh product.

- From 2013 through 2016, the SMP import market in Mexico has been growing at an average rate of 13 percent annually. For 2017, this growth is expected to continue but at a slower pace. The import forecast is revised upward to 300,000 tons - up 5 percent over 2016. Imports through April have been running 15 percent ahead of last year’s rate but are likely to slow as the year progresses. U.S. exporters dominate this market due to duty-free

access under the North American Free Trade Agreement. However, under the WTO Mexico has a tariff rate quota of 80,000 tons for milk powder which has primarily benefitted the EU and New Zealand. This year, the United States is likely to face stiffer competition particularly from the EU; imports of EU SMP through April have nearly doubled from last year.

- **U.S.** exports of SMP have registered solid gains early this year with shipments through May up 22 percent year-over-year. As a result the export forecast is raised 6 percent to 638,000 tons – up 8 percent over the revised 2016 total. Due to corrections in export data, SMP shipments in 2016 are increased by 4 percent to 593,000 tons. Mexico remains a top destination accounting for nearly 50 percent of SMP exported through May. However, the most notable market has been China where U.S. SMP reached 18,000 tons through May, 147 percent over the comparable period in 2016. In contrast to last year, U.S. exporters are regaining their competitive advantage particularly against the EU as the Euro strengthens relative to the U.S. dollar.

United States SMP Exports



WMP:

- After a surge of WMP imports in 2016 which reached 420,000 tons, the WMP import market in **China** is expected to contract in 2017 by 5 percent due to softer demand in the domestic market. Most of the WMP produced domestically in China has been used for manufacturing infant formula. However, the Chinese Government is in the process of implementing new stringent new food safety regulations governing the production of infant formula. These regulations were due to be implemented on October 1, 2016 but manufactures were given a one-year grace period and these regulations will now come into

force on October 1, 2017. As a result, a number of manufacturers will be unable to meet these new regulations and are expected to be releasing stocks of WMP to the domestic market lowering demand for imported WMP. This appears to be already taking place as imports of WMP through May are down 5 percent year-over-year. For this reason, the forecast is cut to 400,000 tons. This will primarily impact New Zealand which in recent years has dominated the import market, supplying 90-95 percent of the imported WMP.

- The 2017 WMP export forecast for **New Zealand** is cut by 2 percent to 1.356 million tons; however, this still represents a growth of 1 percent over 2016. This year, shipments through May are down 1 percent year-over-year, but are expected to gain momentum once the new milk production season arrives in the Spring (September 2017). Although China is major market for New Zealand WMP, accounting for close to 30 percent of its exports in 2016, New Zealand remains well diversified with other markets such as Algeria, United Arab Emirates, and Sri Lanka.

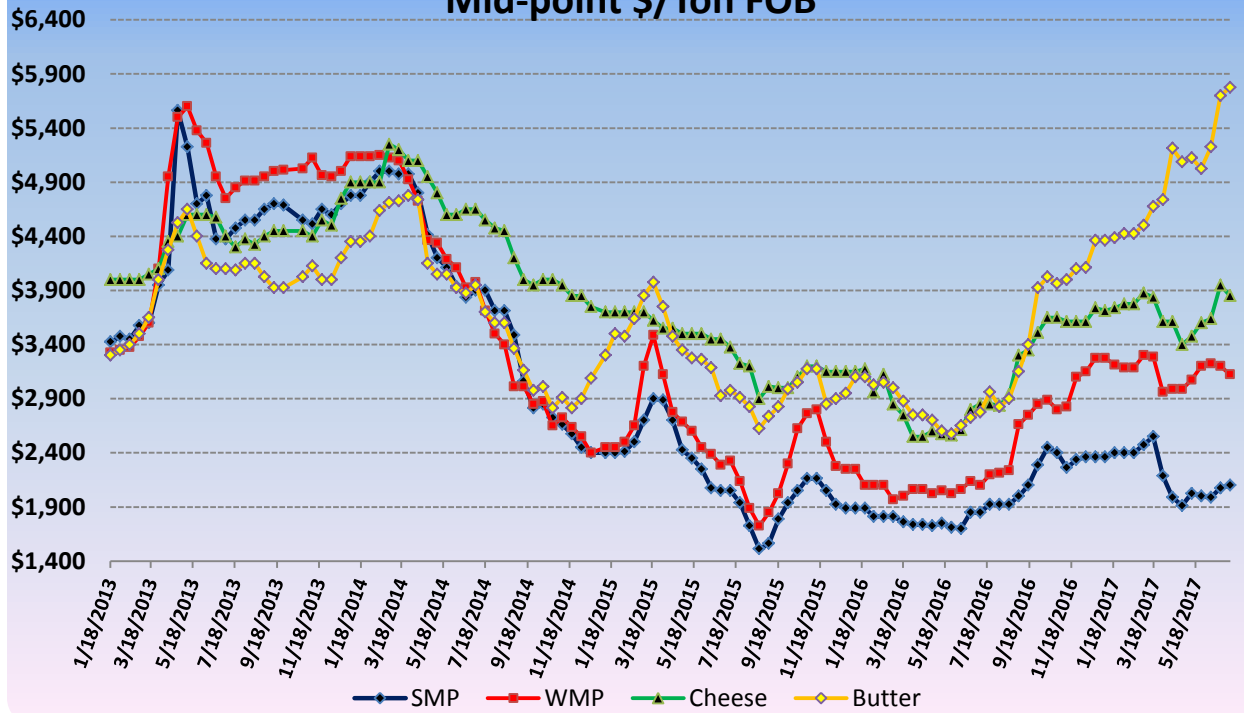
U.S. Dairy Export Forecasts:

U.S. Dairy Products Export Forecast - Calendar Year 2017-2018

	Milk Equivalent (Bil. Lbs.)			Milk Equivalent (Bil. Lbs)		
	2017 (For)	Fat	Skims	2018 (For)	Fat	Skims
NON-FAT DRY AND SKIM MILK PWDR	638,124 MT	0.3	15.1	652,000 MT	0.3	15.4
MILK POWDER > 1.5% MILK FAT	24,563 MT	0.3	0.4	25,250 MT	0.4	0.4
BUTTER/MILKFAT/SPREADS	20,730 MT	1.0	0.0	22,600 MT	1.1	0.0
CHEESE AND CURD	349,288 MT	5.5	2.9	357,700 MT	5.6	3.0
FLUID PRODUCTS 4/	128,270 Liters	0.7	0.3	135,600 Liters	0.4	0.0
DRIED WHEY PRODUCTS	525,378 MT	0.6	12.2	537,500 MT	0.7	12.5
LACTOSE	349,061 MT	0.0	8.6	357,000 MT	0.0	8.8
OTHER DAIRY PRODUCTS	181,563 MT	0.6	1.8	177,000 MT	0.6	1.8
TOTAL - Billion Pounds		9.1	41.2		9.1	41.9

Note: 1) CY 2017 includes actual exports through May 2017
 2) Milk Equivalent figures are rounded and totals may not add up.
 3) Forecasts assume current policy
 4/ Includes milk based drinks, fluid whey, cream and fluid milk

Oceania Export Prices Mid-point \$/Ton FOB



Additional Resources:

For additional information, please contact Paul Kiendl at 202-720-8870 or Paul.Kiendl@fas.usda.gov or Lindsay Kuberka at 202-644-4650 or Lindsay.Kuberka@fas.usda.gov

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Individual FAS country reports covering dairy are available at:
<http://gain.fas.usda.gov/Pages/Default.aspx>

The USDA Production, Supply and Demand database is available at:
<http://www.fas.usda.gov/psdonline>

A monthly “Livestock, Dairy, and Poultry Outlook” for the United States published by the Economic Research Service is available at: <https://www.ers.usda.gov/publications/>

U.S. trade data is available on the Global Agricultural Trade System (GATS):
<http://apps.fas.usda.gov/gats/default.aspx>

The next publication of this circular will be in December 15, 2017.

Cows Milk Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Cows Milk Production						
Argentina	11,519	11,326	11,552	10,191	10,605	10,395
Australia	9,400	9,700	9,800	9,350	9,500	9,100
Belarus	6,640	6,705	7,044	7,140	7,245	7,260
Brazil	24,259	25,489	24,770	22,726	24,208	24,208
Canada	8,443	8,437	8,773	9,100	9,450	9,450
China	34,300	37,250	37,550	36,020	35,000	35,500
European Union	140,100	146,500	150,200	151,000	152,500	151,300
India	57,500	60,500	64,000	68,000	72,000	72,000
Japan	7,508	7,334	7,379	7,420	7,400	7,400
Korea, South	2,093	2,214	2,169	2,126	2,083	2,083
Mexico	11,294	11,464	11,736	11,956	12,100	12,200
New Zealand	20,200	21,893	21,587	21,224	21,600	21,900
Russia	30,529	30,499	30,548	30,470	30,195	30,700
Taiwan	358	363	374	380	380	380
Ukraine	11,189	11,152	10,584	10,380	10,200	10,200
Others	19	20	13	14	15	15
Subtotal	375,351	390,846	398,079	397,497	404,481	404,091
United States	91,277	93,485	94,619	96,343	98,339	98,112
World Total	466,628	484,331	492,698	493,840	502,820	502,203
Fluid Use Dom. Consum.						
Argentina	2,065	2,044	2,084	1,708	1,779	1,744
Australia	2,494	2,600	2,700	2,800	2,725	2,725
Belarus	1,001	1,050	1,050	1,050	1,055	1,055
Brazil	9,036	9,660	10,925	10,141	10,948	10,948
Canada	2,982	2,946	2,923	2,945	2,960	2,960
China	14,350	15,150	15,360	14,600	14,700	14,700
European Union	33,800	34,066	33,800	33,600	33,400	33,550
India	54,400	57,000	59,750	62,750	65,200	65,200
Japan	3,975	3,911	3,935	3,965	3,955	3,955
Korea, South	1,587	1,540	1,529	1,488	1,458	1,458
Mexico	4,160	4,180	4,185	4,183	4,186	4,186
New Zealand	451	495	497	497	500	500
Russia	10,150	9,859	9,500	9,150	9,085	8,900
Taiwan	356	369	384	400	403	403
Ukraine	5,316	5,538	5,385	5,190	5,009	5,009
Others	58	62	54	58	61	61
Subtotal	146,181	150,470	154,061	154,525	157,424	157,354
United States	27,334	27,060	26,789	26,521	26,500	26,500
World Total	173,515	177,530	180,850	181,046	183,924	183,854

Fluid Milk - Cow Numbers: Summary For Selected Countries
1,000 Head

	2013	2014	2015	2016	2017 Dec	2017 Jul
Cows In Milk						
Argentina	2,100	1,826	1,786	1,715	1,630	1,630
Australia	1,650	1,700	1,705	1,690	1,670	1,660
Belarus	1,519	1,525	1,533	1,512	1,510	1,520
Brazil	16,599	16,825	17,426	17,430	17,850	17,850
Canada	961	955	954	959	960	960
China	8,350	8,400	8,400	8,000	7,500	7,500
European Union	23,193	23,468	23,559	23,595	23,475	23,548
India	48,250	50,500	52,500	54,500	56,500	56,500
Japan	798	773	750	752	750	750
Korea, South	206	208	197	194	190	190
Mexico	6,300	6,350	6,400	6,450	6,500	6,500
New Zealand	5,005	5,176	5,056	4,995	4,900	5,000
Philippines	16	18	10	11	12	12
Russia	8,250	8,050	7,750	7,550	7,320	7,320
Taiwan	60	60	62	62	62	62
Ukraine	2,554	2,509	2,322	2,226	2,150	2,150
Subtotal	125,811	128,343	130,410	131,641	132,979	133,152
United States	9,224	9,257	9,314	9,328	9,359	9,395
World Total	135,035	137,600	139,724	140,969	142,338	142,547

Cheese Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Production						
Algeria	0	0	0	0	0	0
Argentina	556	564	548	515	545	535
Australia	320	320	324	324	330	320
Belarus	182	226	241	275	275	273
Brazil	722	736	754	745	772	760
Canada	388	396	419	427	435	435
European Union	9,368	9,560	9,740	9,810	9,875	9,910
Japan	49	46	46	45	45	45
Korea, South	22	24	23	24	24	24
Mexico	270	275	280	285	293	300
New Zealand	311	325	355	360	355	370
Philippines	2	2	2	2	2	2
Russia	713	760	861	865	840	865
Taiwan	0	0	0	0	0	0
Ukraine	247	203	190	200	206	206
Total Foreign	13,150	13,437	13,783	13,877	13,997	14,045
United States	5,036	5,222	5,367	5,514	5,545	5,590
Total	18,186	18,659	19,150	19,391	19,542	19,635
Total Dom. Consumption						
Algeria	0	0	0	0	0	0
Argentina	507	510	506	465	490	496
Australia	220	239	243	246	254	254
Belarus	65	67	69	71	71	73
Brazil	750	754	773	785	799	795
Canada	403	407	418	439	438	444
European Union	8,656	8,883	9,087	9,093	9,125	9,140
Japan	285	278	295	303	305	320
Korea, South	107	118	137	134	144	144
Mexico	368	370	391	403	418	425
New Zealand	39	40	35	35	40	35
Philippines	16	20	21	23	25	25
Russia	1,140	1,072	1,052	1,076	1,060	1,079
Taiwan	25	26	29	32	34	35
Ukraine	198	197	184	195	204	209
Total Foreign	12,779	12,981	13,240	13,300	13,407	13,474
United States	4,839	4,977	5,149	5,369	5,440	5,384
Total	17,618	17,958	18,389	18,669	18,847	18,858

Cheese Trade: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Total Exports						
Argentina	51	56	43	53	70	50
Australia	163	151	171	167	170	190
Belarus	140	167	183	204	210	202
European Union	787	721	719	800	825	855
New Zealand	277	278	327	355	340	350
Others	107	68	56	55	58	54
Total Foreign	1,525	1,441	1,499	1,634	1,673	1,701
United States	316	368	317	287	286	349
Total	1,841	1,809	1,816	1,921	1,959	2,050
Total Imports						
Australia	69	80	89	99	110	120
Japan	236	232	249	258	260	275
Korea, South	85	97	112	110	120	120
Mexico	103	99	116	123	130	130
Russia	463	349	220	230	235	235
Others	205	201	181	221	206	223
Total Foreign	1,161	1,058	967	1,041	1,061	1,103
United States	113	127	157	165	166	140
Total	1,274	1,185	1,124	1,206	1,227	1,243

Butter Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Production						
Algeria	0	0	0	0	0	0
Argentina	60	52	50	47	50	51
Australia	117	125	120	90	112	95
Belarus	99	107	113	120	125	115
Brazil	83	85	83	82	84	84
Canada	95	88	91	95	100	100
European Union	2,100	2,250	2,335	2,345	2,365	2,335
India	4,745	4,887	5,035	5,200	5,400	5,400
Japan	68	61	65	67	65	65
Mexico	190	192	195	205	210	210
New Zealand	535	580	604	584	575	610
Russia	219	252	260	246	245	250
Taiwan	0	0	0	0	0	0
Ukraine	93	115	103	105	106	106
Total Foreign	8,404	8,794	9,054	9,186	9,437	9,421
United States	845	842	839	834	890	845
Total	9,249	9,636	9,893	10,020	10,327	10,266
Domestic Consumption						
Algeria	0	0	0	0	0	0
Argentina	41	38	41	41	42	44
Australia	85	89	95	100	104	107
Belarus	49	53	43	44	49	45
Brazil	87	80	84	89	90	91
Canada	102	99	106	116	115	127
European Union	2,031	2,162	2,150	2,176	2,150	2,190
India	4,735	4,876	5,032	5,196	5,395	5,400
Japan	72	75	77	77	77	77
Mexico	234	221	228	255	252	262
New Zealand	22	22	24	28	25	30
Russia	357	376	350	347	332	363
Taiwan	19	22	25	24	22	25
Ukraine	100	116	97	97	96	97
Total Foreign	7,934	8,229	8,352	8,590	8,749	8,858
United States	782	794	831	853	940	875
Total	8,716	9,023	9,183	9,443	9,689	9,733

Butter Trade: Summary For Selected Countries
1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Total Imports						
Russia	140	137	90	100	90	115
Mexico	50	37	43	65	62	62
Australia	21	23	23	30	25	35
Canada	7	11	17	27	18	30
Taiwan	19	22	25	24	22	25
Japan	4	11	16	13	12	12
European Union	44	52	27	23	20	10
India	1	1	6	6	5	10
Brazil	5	1	2	7	6	8
New Zealand	1	1	1	2	1	2
Ukraine	14	11	1	1	1	1
Algeria	0	0	0	0	0	0
Argentina	1	0	0	0	0	0
Belarus	0	1	0	0	0	0
Total Foreign	307	308	251	298	262	310
United States	12	22	38	50	50	52
Total	319	330	289	348	312	362
Total Exports						
New Zealand	508	560	552	554	570	582
European Union	122	142	183	218	240	175
Belarus	50	55	70	76	76	70
Australia	50	44	35	30	45	35
Ukraine	3	5	11	9	12	12
India	10	10	9	9	10	10
Mexico	6	8	10	15	20	10
Argentina	19	14	9	6	8	7
Russia	2	4	3	4	3	3
Brazil	1	6	1	0	0	1
Canada	4	2	1	1	1	1
Algeria	0	0	0	0	0	0
Japan	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Total Foreign	775	850	884	922	985	906
United States	93	74	23	26	21	20
Total	868	924	907	948	1,006	926

Nonfat Dry Milk Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Production						
Australia	215	205	266	238	240	240
Brazil	151	154	155	153	157	157
European Union	1,250	1,550	1,715	1,785	1,700	1,675
India	490	520	540	540	570	570
New Zealand	404	415	410	414	410	420
Others	585	621	658	648	652	646
Total Foreign	3,095	3,465	3,744	3,778	3,729	3,708
United States	956	1,047	1,029	1,049	1,050	1,085
Total	4,051	4,512	4,773	4,827	4,779	4,793
Total Dom. Consumption						
China	289	300	244	223	220	265
European Union	848	887	981	865	978	1,014
India	400	446	492	531	560	575
Indonesia	222	215	202	204	209	209
Mexico	253	258	314	338	344	350
Others	1,052	1,028	1,064	1,113	1,142	1,178
Total Foreign	3,064	3,134	3,297	3,274	3,453	3,591
United States	424	458	487	448	457	435
Total	3,488	3,592	3,784	3,722	3,910	4,026

Nonfat Dry Milk Trade: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Total Imports						
Mexico	198	203	259	286	290	300
China	235	253	200	184	180	225
Indonesia	225	215	205	205	210	210
Philippines	113	95	100	185	180	170
Algeria	120	168	136	119	120	130
Russia	131	103	120	128	120	130
Japan	32	43	53	34	32	36
Brazil	24	23	35	35	35	35
Taiwan	21	23	25	23	26	29
Korea, South	20	21	21	21	20	25
Chile	7	5	10	14	10	15
Australia	5	6	10	6	0	5
New Zealand	5	4	5	3	5	4
Canada	3	6	3	4	5	2
European Union	5	2	3	4	3	2
Belarus	1	3	0	1	0	1
Argentina	0	0	0	0	0	0
India	0	1	0	0	0	0
Ukraine	2	1	0	0	0	0
Total Foreign	1,147	1,175	1,185	1,252	1,236	1,319
United States	1	3	2	1	0	1
Total	1,148	1,178	1,187	1,253	1,236	1,320
Total Exports						
European Union	407	648	692	574	675	675
New Zealand	392	383	411	444	425	410
Australia	119	164	201	163	180	165
Belarus	96	92	122	111	108	105
Canada	13	13	14	24	40	45
Ukraine	12	28	35	34	38	35
Argentina	25	22	24	26	26	22
India	130	61	18	19	25	10
Mexico	0	0	0	3	1	5
Chile	0	2	1	2	2	2
Indonesia	1	1	2	1	1	1
Russia	3	3	2	1	2	1
Algeria	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
China	0	2	1	1	0	0
Japan	0	0	0	0	0	0
Korea, South	0	0	0	0	0	0
Philippines	6	5	0	0	0	0
Taiwan	0	0	0	0	0	0
Total Foreign	1,204	1,424	1,523	1,403	1,523	1,476
United States	555	544	560	593	604	638
Total	1,759	1,968	2,083	1,996	2,127	2,114

Whole Milk Powder Production And Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Production						
Argentina	277	258	252	180	222	185
Brazil	549	612	610	545	595	585
China	1,200	1,350	1,617	1,375	1,400	1,400
European Union	667	720	710	710	720	695
New Zealand	1,300	1,460	1,380	1,330	1,360	1,370
Others	555	545	494	460	467	448
Total Foreign	4,548	4,945	5,063	4,600	4,764	4,683
United States	33	47	49	45	45	46
Total	4,581	4,992	5,112	4,645	4,809	4,729
Total Dom. Consumption						
Algeria	170	180	214	222	219	280
Brazil	600	603	628	657	629	664
China	1,746	1,845	1,910	1,992	1,977	1,898
European Union	296	331	314	326	316	318
Mexico	156	151	151	148	150	148
Others	674	648	703	541	508	517
Total Foreign	3,642	3,758	3,920	3,886	3,799	3,825
United States	24	28	49	40	38	38
Total	3,666	3,786	3,969	3,926	3,837	3,863

Whole Milk Powder Trade: Summary For Selected Countries
1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
Total Imports						
Afghanistan	0	0	0	0	0	0
Algeria	142	204	224	224	210	285
Argentina	0	0	0	0	0	0
Australia	8	9	11	16	20	25
Brazil	54	30	59	126	55	100
Chile	8	4	7	7	7	10
China	619	671	347	420	450	400
European Union	3	1	4	6	6	3
Indonesia	51	50	44	52	55	50
Mexico	11	7	7	12	13	13
New Zealand	1	1	7	4	5	4
Philippines	29	20	17	22	25	20
Russia	44	36	38	48	44	50
Taiwan	31	33	34	30	32	35
Venezuela	170	134	195	58	25	25
Others	1	0	0	0	0	0
Total Foreign	1,172	1,200	994	1,025	947	1,020
United States	7	7	9	15	10	19
Total	1,179	1,207	1,003	1,040	957	1,039
Total Exports						
Afghanistan	0	0	0	0	0	0
Algeria	0	0	0	0	0	0
Argentina	182	144	138	110	132	80
Australia	96	81	65	70	70	55
Belarus	46	31	38	29	27	26
Brazil	3	39	41	14	21	21
Chile	19	21	6	7	6	4
China	3	6	4	3	2	2
European Union	374	390	400	390	410	380
Indonesia	0	0	0	0	0	0
Mexico	5	6	11	20	20	22
New Zealand	1,291	1,423	1,380	1,344	1,380	1,356
Philippines	13	8	21	27	19	5
Russia	1	1	2	1	2	1
Ukraine	1	2	2	2	2	4
Others	0	0	0	0	0	0
Total Foreign	2,034	2,152	2,108	2,017	2,091	1,956
United States	16	18	15	19	16	25
Total	2,050	2,170	2,123	2,036	2,107	1,981