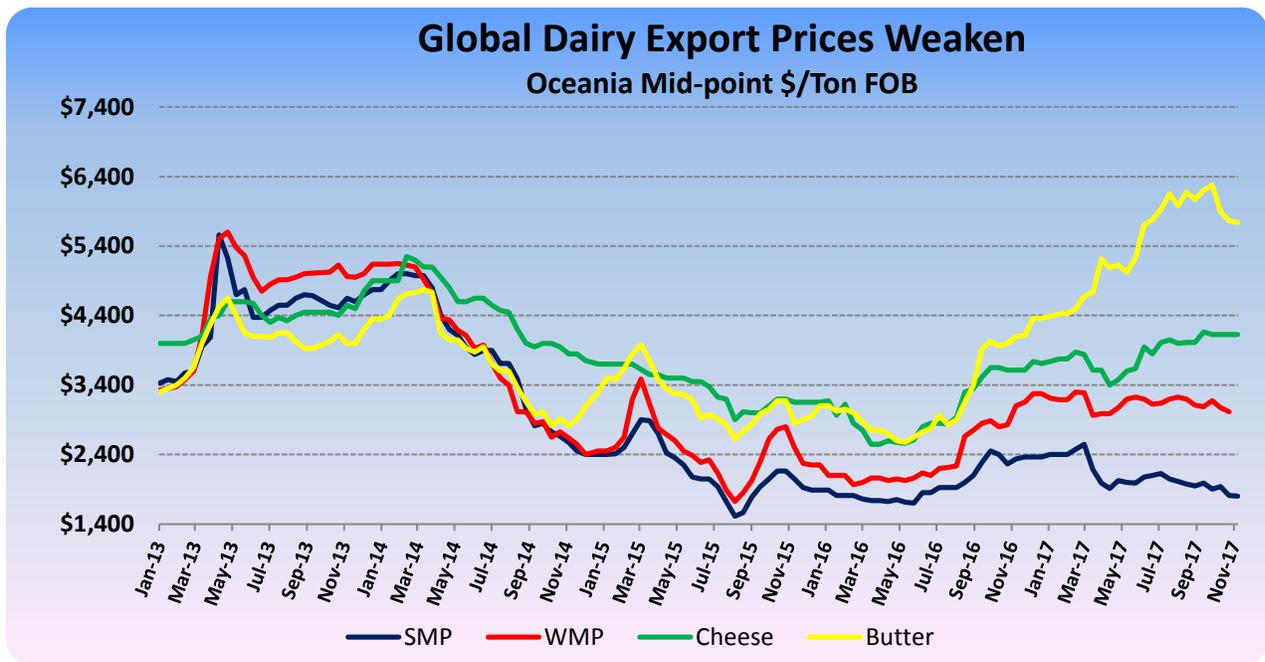


# Dairy: World Markets and Trade

December 2017

Since the start of the year (through November 2017) global dairy prices have diverged; butter and cheese prices posted gains while prices for whole milk powder (WMP) and skimmed milk powder (SMP) dropped by 12 percent and 28 percent, respectively. The stellar performer was butter with prices climbing by 40 percent to peak at \$6,275 per ton FOB Oceania in September. In the European Union, this rise was more spectacular with values peaking at \$8,140 per ton amid reports of shortages in countries such as France. What is particularly striking is the differential between butter and SMP underscoring the premium that milk fat now commands in response to changing consumer preferences. Cheese has been the steady performer with prices trending upwards standing 10 percent ahead of early January prices.



For 2018, the price outlook points to a continued sharp correction in butter prices although strong consumer demand should keep prices from dropping far below \$4,000/MT. Cheese and WMP will likely decline moderately while SMP prices will continue to struggle at prices below \$2,000/ton due to ample exportable supplies in the European Union and the United States.

For U.S. exporters, the SMP export market poses the greatest challenge, particularly on aggressive competition from the European Union. In 2017, EU shipments of SMP are estimated to have grown by nearly one third. In 2018, EU exports are forecast to expand by another 3 percent. U.S. SMP exports face particularly strong competition in such key Asian markets as Indonesia, Philippines, and Vietnam where shipments through September are lagging last year's pace.

# Dairy Production and Trade Developments

## Milk Production Summary for Major Exporters (Million Tons)

	2016	2017 Estimated	2018 Forecast	2017-2018 Change %
<b>Argentina</b>	10.2	10.1	10.7	<b>6%</b>
<b>Australia</b>	9.5	9.3	9.5	<b>2%</b>
<b>EU-28</b>	151.0	151.7	152.1	<b>0%</b>
<b>New Zealand</b>	21.2	21.5	21.9	<b>2%</b>
<b>United States</b>	96.3	97.8	99.5	<b>2%</b>
<b>Major Exporter Total</b>	288.2	290.4	293.7	<b>1%</b>

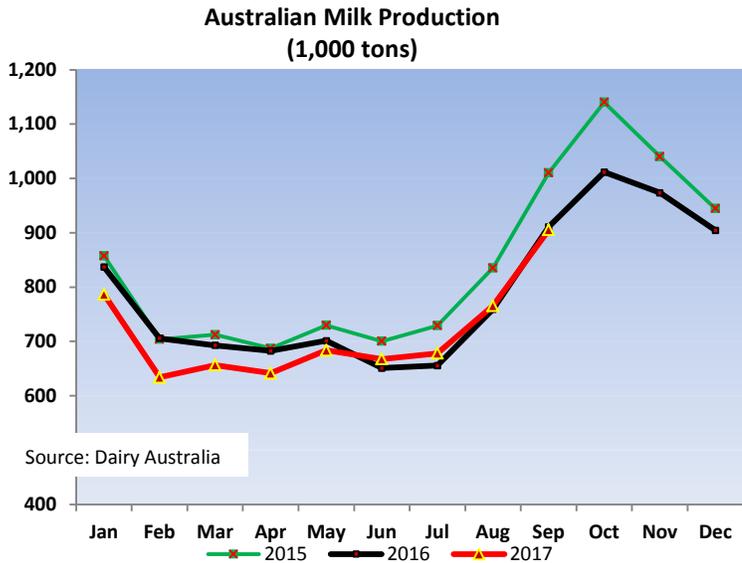
### Fluid Milk:

- Due to severe floods, milk production in **Argentina** for 2017 is revised down 3 percent to an estimated 10.1 million tons. This will be the second consecutive year of declines in milk output and represents a cut of nearly 14 percent since 2012 when milk production peaked at 11.7 million tons. In addition to the weather related problems, the dairy sector has been facing the challenge of high production costs, a weak infrastructure that is handicapping the distribution and efficiency of dairy operations, and the financial difficulties of the largest processor of fluid milk in Argentina. Sancor, Argentina's largest dairy cooperative with a processing capacity of up to 6 million liters annually, has significant debts some of which were incurred by sales of WMP to Venezuela. As a result of the financial pressure, four of the 16 processing plants it operates have been shut down.

Normal weather and improved financial conditions are expected in 2018 and milk output is forecast to rebound by 6 percent to 10.7 million tons. Farm prices are expected higher and continued consolidation in the dairy sector is likely to result in increased efficiencies. Most of the additional fluid milk is expected to be used in the production of cheese and butter.

- Milk production in **Australia** through September is trailing last year's pace by 3 percent year-over-year but favorable year-end conditions are expected to improve output in the last quarter. The Australian Bureau of Meteorology is forecasting a wetter than normal summer season for the southeast. As a result, the 2017 milk production forecast is revised up by 2 percent to 9.3 million tons despite expectations that the herd will shrink by 2 percent. Key factors that have supported this upward adjustment have been the higher farm gate prices and improved pasture conditions that raised output per-cow. In the first

half of the year, farmers particularly benefitted from lower input costs for water and feed grains, although these have since risen. Nevertheless, the financial conditions during the



year have been challenging with an estimated 5 percent of the dairy farms ceasing operation in the first half of the year. In 2016, there were 6,100 dairy farms which dropped to 5,800 farms in mid-2017.

The Australian dairy industry appears to be recovering and milk production for 2018 is forecast to grow to 9.5 million tons. Pasture conditions, herd rebuilding, and higher farm-gate prices are expected to

underpin this increase.

Fluid milk exports have been expanding at a rapid pace climbing by 16 percent in 2016 and projected to grow by another 4 percent in 2017 to reach 200,000 tons. So far in 2017 through October, about one third of the milk has been shipped to China with most of the balance going to other Asian markets such as Singapore, Malaysia, and Hong Kong. This growth is expected to continue in 2018 with the export forecast pegged at 210,000 tons – 5 percent above 2017.

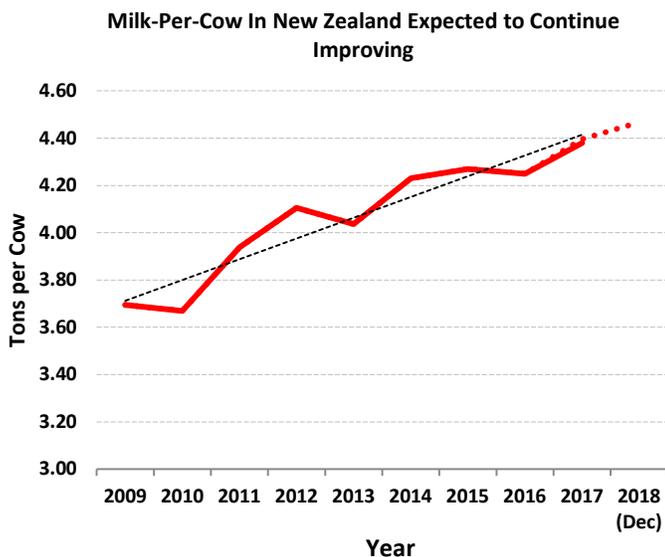
- Milk production in **Belarus** is forecast up nearly 2 percent in 2018, as the export market continues to drive processing demand higher. Growth in milk output is mostly attributed to rising per-cow productivity, as dairy cow numbers remain stable. The incentive to boost milk yields was strong during 2017 as returns were buoyed by a rise in global dairy product prices and the appreciation of the ruble. Belarus exports more than half of its butter, cheese, and milk powder production, mostly to Russia. Therefore, a stronger ruble had an outsized impact on prices received for Belarusian dairy products. Export demand is expected to remain firm during 2018, but growth may slow due to higher product stocks and higher milk production in Russia.
- Due to unfavorable weather conditions early in 2017, milk production in the **European Union** was down 1 percent the first half of the year versus 2016. However, a return to normal weather and higher milk prices coupled with lower feeds costs are expected to boost milk output in the second half. In July 2017, the average milk price was € 34 per 100 kg (\$17.80/cwt), up one third over the same month in 2016. By the end of September; however, cumulative EU milk production for the year was running nearly one-half of a percent ahead of last year over the comparable period. Current prices at €36.7 per 100 kg

(\$19.80/cwt) remain relatively strong and point to continued incentives to boost production through the end of the year. Consequently, the EU cow's milk output projection for 2017 is revised up by 400,000 tons to 151.7 million tons.

The outlook for 2018 reflects dairy commodity prices which are currently slipping and the pressure significant surplus stocks of SMP are expected to have on the market until the EU Commission can find a solution to dispose of these stocks. Nonetheless, the herd is projected to remain stable and due to improved genetics, milk-per-cow yields are likely to rise. As a result, the milk output forecast is set at 152.1 million tons or up three-tenths of a percent over 2017. Most of the additional milk will likely be used for the production of cheese estimated to use about two thirds of all the milk produced.

In 2016, exports of fluid milk –primarily in the form of Ultra-high temperature (UHT) milk surged by 26 percent to hit a record 893,000 tons. This year, shipments of UHT have slowed significantly as exports to China through September are down 19 percent year-over-year. In 2016, China accounted for nearly 40 percent of all EU UHT shipments. In addition, shipments of fluid milk to Belarus have virtually ceased; in 2016, exports were 103,000 tons. As a result, the 2017 forecast for milk exports is scaled back 11 percent to 800,000 tons, breaking a 7-year upward trend. Shipments of UHT in 2018 are expected to remain stable at 2017 levels.

- Milk output in **New Zealand** has been impacted by a cut in the herd size which is now estimated at 4.9 million head rather than the 5.0 million originally forecast in December 2016. However, this has been somewhat offset by higher productivity with the average cow producing 4.4 tons of milk – up 3.5 percent from the previous year. For the past 10 years, milk-per-cow yields have on average increased by 2 percent annually largely due to improved genetics. Consequently, although the 2017 milk output projection is revised down to 21.5 million tons this still represents an expansion of some 316,000 tons or 1.5 percent from the previous year.



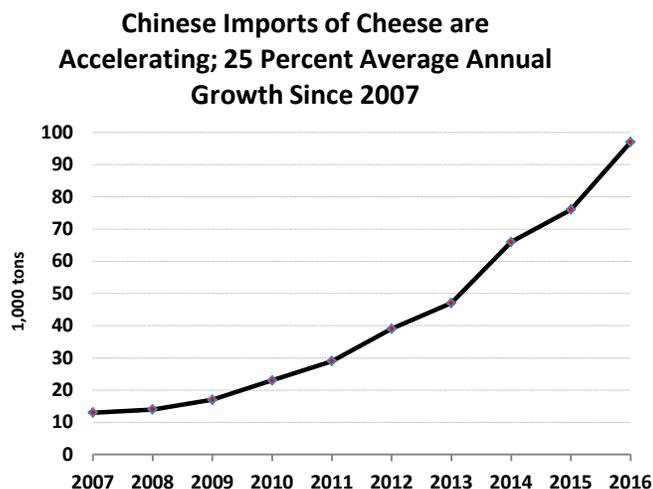
The forecast for 2018 points to growth in the dairy herd and a rise in milk production of 1 percent to 22.0 million tons largely due to higher milk per cow yields. There is also greater confidence in the future as prices announced by Fonterra for the 2017/2018 season are forecast at NZ\$6.40/kg milk solids (MS) – up 5 percent from the estimated 2016/17 average of NZ \$6.10/kg MS. Although this is not a substantial increase, it is estimated that the breakeven point for most

dairy farms is around NZ\$5.00 – 5.50/kg MS. After several years of decline in the herd size, these stronger prices are likely to encourage farmers to expand herds albeit at a modest rate. In the future, environmental restrictions and increased costs of complying with these new limits are expected to restrain expansion.

- **Russia's** milk production is forecast marginally lower in 2018, as gains at commercial dairies are completely offset by lower output from backyard farms. Returns accelerated during 2017 due to growth in global dairy product prices, especially for butter. A stronger ruble also lowered the cost of imported inputs for dairy farmers. These factors are expected to drive milk production during 2018. However, total output will continue to fall as profitability at backyard farms remains low due to higher costs and lower efficiency compared to commercial farms.
- **Ukraine's** milk production is forecast to decline modestly in 2018, as growth in milk yields is more than offset by continued contraction of the dairy herd. Milk prices strengthened during 2017, but remain relatively low. Economic growth in Ukraine is expected to pick up during 2018 and coupled with higher global dairy prices during 2017, stimulate milk production growth among commercial dairies. However, smallholder producers are likely to continue culling herds due to low profitability. Demand in the processing sector remains weak as few alternative export markets have emerged after the loss of its major cheese export market – Russia – in 2014.

## Cheese:

- The **New Zealand** 2017 export forecast for cheese at 350,000 tons remains unchanged from the previous forecast. Although sales to a number of destinations through October



Source: GTIS

are ahead of last year, shipments of cheese to the U.S. market are down by half. Most of the cheese exported to the United States appears to comprise primarily of Colby and Cheddar. In 2016, sales of cheese to the U.S. market totaled nearly 17,000 tons.

Cheese output in New Zealand is expected to grow in 2018 and exports are forecast to rise by 3 percent to 360,000 tons. While Australia and Japan have

traditionally been leading markets, China is rapidly becoming the prime destination. Over the past 10 years, China's imports of cheese have been growing rapidly and imports through October are currently up 19 percent over last year's comparable period, reaching 93,000 tons. New Zealand has supplied about half of the volume. Given the current pace China's imports will likely breach the 100,000 tons mark this year.

- The 2017 cheese production forecast for **European Union** is revised up slightly to 9.96 million tons reflecting the steady growth in domestic consumption. Cheese consumption in the European Union has been growing at an average pace of 1 percent since 2009 and is projected to continue at this rate in 2017 and 2018. Although exports thus far in 2017 have been slower than anticipated and the export forecast is trimmed to 830,000 tons this is still about 4 percent ahead of last year and remains a record. About one quarter of its total sales this year have been to the United States and Japan. This is not expected to change significantly in the future.

Cheese production in 2018 is anticipated to surpass the 10 million-ton mark and shipments are set to expand by 6 percent to reach 880,000 tons. Although there were some stocks under the EU's Private Storage Aid in 2017, these are expected to be drawn down during the year and no carry-in stocks are expected in 2018.

- **United States** exports of cheese in 2017 are rebounding following 2 years of disappointing results when shipments declined by nearly a quarter. Sales through October are up 22 percent over the comparable period in 2016. Exports to such key markets as Mexico, South Korea and Japan are all up over 10 percent over the same period. Although the export forecast has been trimmed slightly to 339,000 tons, this would still represent an impressive year-over-year gain of over 18 percent.

**U.S. Cheese Exports Forecast to Resume Growth**



This momentum is expected to carry through 2018 as exports are anticipated to grow by 5 percent to reach 357,000 tons. U.S. exporters have faced strong competition primarily from the European Union. However, the recent strengthening of the euro vis-à-vis the U.S. dollar will likely boost U.S. cheese competitiveness.

On the import side, after 3 years of rising cheese imports reaching 165,000 tons in 2016,

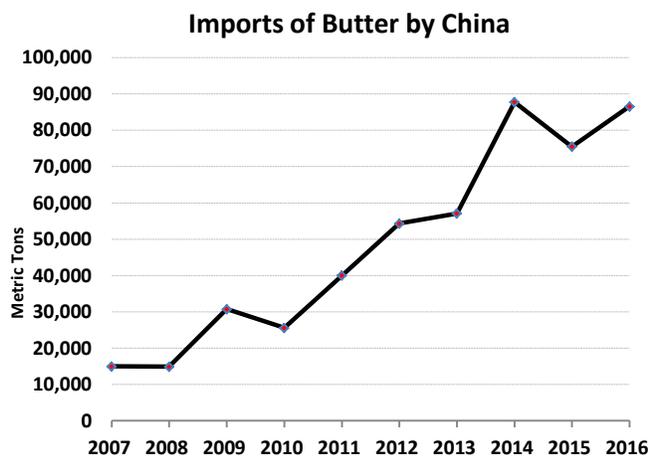
U.S. 2017 imports are expected to reverse course and drop down by 16 percent to an

estimated 139,000 tons. So far this year through October, year-over-year imports from the European Union are down 6 percent while imports from New Zealand have fallen by half. This trend is forecast to continue in 2018 as imports are slated to drop by another 5 percent to 132,000 tons. The U.S. cheese market has become more price-competitive and, anecdotally, it appears that there is a greater variety of U.S. cheeses available to consumers.

**Russia's** cheese production is forecast higher in 2018, driven by growth in consumer demand and improved producer margins compared to butter. Demand for locally-produced cheese will edge higher due to growth in consumer purchasing power as economic growth ticks up. Imports are forecast moderately higher as a stronger ruble boosts demand for higher-quality imported cheese. While the import ban continues to restrict supplies from the European Union and United States, shipments are on the rise from countries unaffected by the ban, including Switzerland and Chile. However, Belarus will remain the top supplier to Russia with imports from other countries remaining fairly small.

## **Butter:**

- Although international butter prices have hit record levels - over \$8,000 per ton in the European Union – shipments from major suppliers such as **New Zealand** and the European Union have not been able to take advantage of the situation and ramp up exports. New Zealand exports trail last year's pace and the forecast is revised down by 19 percent to 470,000 tons. Given the dismal outlook for the SMP market it appears that processors are unwilling to churn more butter at the risk of carrying burdensome supplies of co-products (SMP or skim solids). In New Zealand, butter output in 2017 is projected to drop by 5 percent relative to last year. In 2018, exports are set to expand by 7 percent supported by higher carry-in stocks and increased production. Shipments to key markets such as the European Union, Mexico, and Egypt have declined this year, but these have been offset to some extent by increasing sales to the rapidly growing Chinese market. In China, rising incomes are encouraging consumption of butter while the processing sector, particularly the bakery



Source: GTIS. Note this includes butter and butteroil/AMF

industry, is starting to adopt butter as an ingredient.

- **European Union** butter production is trending lower this year in comparison to last year despite strong domestic demand and high prices. It appears that processors are limiting the production of butter given the difficulty in finding a market for the skim solids that are a coproduct of the butter making process. Given the current slow pace of shipments, the export forecast is revised down by 3 percent to 170,000 tons or 22 percent below last year's level.

In 2018, EU butter output is expected to rise marginally but overhanging supplies of SMP may limit the price incentives to expand butter production. The additional butter volumes will likely be channeled into the domestic market where demand is anticipated to remain strong. Without any significant stock accumulation, exportable supplies of butter will be limited and exports are expected to drop by 15 percent to 145,000 tons.

- **Belarus** butter production is forecast up in 2018 due to relatively strong global prices and steady export demand. With Russia extending its import ban on EU and U.S. dairy products and economic growth picking up across Former Soviet Union countries, Belarus's exports are forecast 4 percent higher. The country exports nearly two-thirds of its production and holds an 80-percent market share in Russia. Consumption is also expected to grow, but remains well below previous levels due to the strong export market.
- **Russia's** butter production is forecast lower in 2018 due to record high stocks. Strong global butter prices pushed up producer margins and drove a near 7-percent rise in butter output during 2017. Supply growth outstripped demand growth and caused stocks to accumulate by the end of the year. High stocks will weigh on the market during 2018, with production expected to fall marginally and imports to stabilize. However, butter demand continues to gain with consumption expected to reach pre-recession (2014) levels in 2018. An improved economic outlook is driving up consumer demand for butter; food processors are increasing the use of milkfat in manufacturing, reversing the trend of substituting lower-cost vegetable oils.

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### **Skimmed Milk Powder:**

- Exports of SMP from the **European Union** are booming and are projected to reach a record 759,000 tons for the year – a near one-third increase in volume over 2016. While 20 percent of the shipped amount this year has been destined to North African and Middle Eastern markets such as Algeria, Egypt, and Saudi Arabia, a significant portion has been flowing to Mexico and Asian markets. As a result, U.S. exports of SMP have faced strong market competition and erosion of market share. For Mexico, EU shipments of SMP

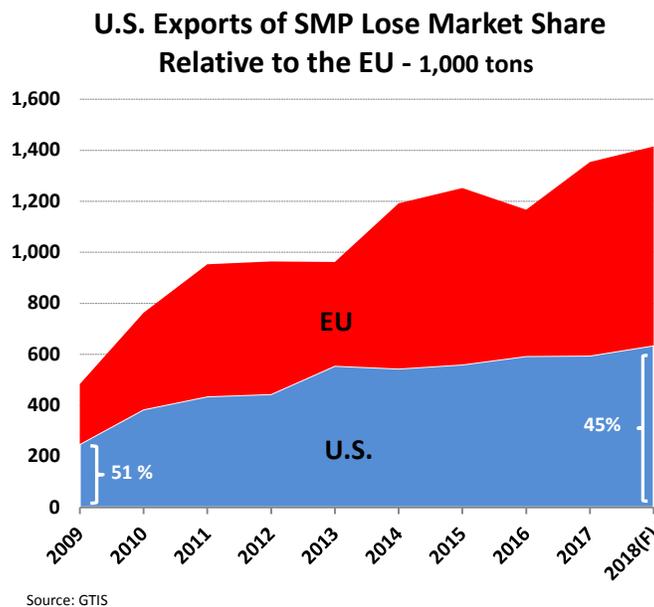
through September total 37,000 tons or over 4 times the volume exported in 2016 for the comparable period.

In 2018, EU shipments of SMP are forecast to continue growing at a more moderate pace to reach 780,000 tons – up 3 percent from 2017. Despite this growth, the European Union is expected to carry-over substantial intervention stocks which will continue to weigh on global SMP markets. At the end of October, intervention stocks totaled 376,000 tons plus there was an additional 6,000 tons in the Private Storage Aid scheme. Due to the high volumes in intervention, the EU Commission is considering implementing a tendering process that would give the Commission the flexibility of controlling the flow of surplus SMP into intervention. No assumption is made concerning a change in policy and until the EU can resolve the issue of these stocks, the prospect for any price recovery of SMP will be dim.

- Following the implementation of the new ingredient Class 7 on February 1, 2017 in **Canada**, exports of SMP have accelerated to reach 61,000 tons by October, a growth rate of 214 percent year-over-year. Consequently, the 2017 export forecast is revised up by nearly 70 percent to 75,000 tons. Most of the SMP has so far been shipped to Mexico and the EU dominant markets of Egypt and Algeria.

For 2018, the Canadian Dairy Corporation (CDC) will likely raise milk production quota limits to satisfy strong domestic demand for milkfat. Increased domestic production would likely limit imports of butter and cream from the United States and New Zealand. This action is expected to raise SMP production and exports are forecast to grow by 13 percent to 85,000 tons.

- The **United States** SMP export forecast for 2017 is cut by 7 percent to 595,000 tons which is marginally higher than 2016 export levels. U.S. SMP exporters have been facing intense



competition from the European Union particularly in Asian markets. Nearly 50 percent of U.S. SMP shipments are destined to Mexico. While the volume of sales through October has been steady, the United States has lost market share in a growing Mexican import market to the European Union and, to a lesser extent, Canada. In the Asian markets, sales of U.S. SMP are lagging in such major markets as the Philippines, Indonesia, and Vietnam. However, in sharp contrast, sales of U.S. SMP to the fast growing China dairy market are

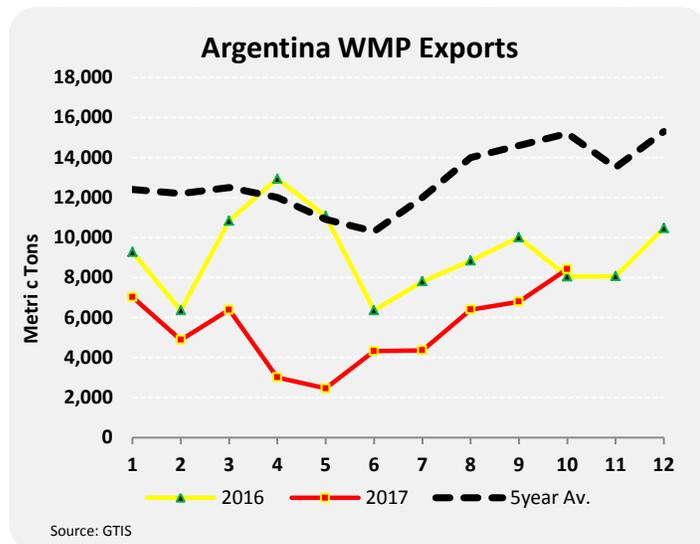
nearly double last year's pace which bodes well for the future.

For 2018, the export forecast is raised by 7 percent to 635,000 tons as the recently weakening U.S. dollar and growing world import demand are expected to boost sales. In addition, beginning SMP stocks are expected to total 160,000 tons - up 57 percent relative to 2017 - providing ample exportable supplies.

- Imports of SMP by **Mexico** are set to grow by 8 percent to 310,000 tons in 2017. While domestic milk production is expected to expand by 1 percent in 2018, the growing demand by the processing sector for factory use milk will likely be met by imports of SMP. Consequently, the 2018 import forecast is pegged at 330,000 tons - up about 7 percent. The United States should remain the dominant supplier despite inroads made by the European Union and Canada in 2017.

## Whole Milk Powder:

- As a result of lower milk availability and lower export demand for WMP for **Argentina**, the WMP production forecast for 2017 is revised down by 21 percent to 146,000 tons – a decline of 7 percent from the previous year. The most evident impact of this has been in the pace of exports which so far this year through October are down 41 percent in



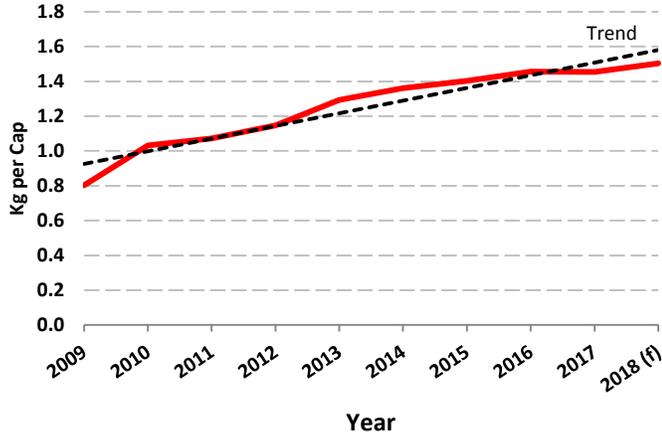
comparison to last year. Most of the WMP has been shipped to Brazil and Algeria while shipments to Venezuela which averaged around 55,000 tons annually between 2012 and 2016 have plunged to 3,000 tons.

Prospects for 2018 are expected to be brighter as shipments of WMP are expected to rebound by 10 percent to reach 160,000 tons. This will be the first time in 7 years that shipments reverse from trend and grow.

- After a sluggish first half of 2017, imports of WMP by **China** have accelerated since June and are now projected to reach 500,000 tons – a 25 percent upward revision from the original forecast. Part of the reason for raising imports appears to be due to a decline in domestic fluid milk production which is expected to drop by 1 percent in 2017 over the

previous year. China has a strong dependence on WMP specifically during months when

**WMP Per Capita Consumption in China  
Continues to Grow**



domestic milk supplies cannot meet demand. This is particularly evident from July through September when consumption tends to peak.

For next year, imports of WMP are set at 600,000 tons as the per capita consumption of WMP is expected to continue growing due to greater urbanization and higher disposable income levels.

- The **New Zealand** 2017 export forecast for WMP remains virtually unchanged from the previous forecast. At 1.3 million tons, it is roughly at the same level as last year. Although sales to China through October are up nearly 25 percent year-over-year, accounting for nearly a third of shipments so far, this has been offset by a loss of shipments to such major markets as Algeria and Saudi Arabia. For 2018, exports of WMP are expected to grow slightly to reach 1.4 million tons and China will likely remain the key customer.



## U.S. Dairy Export Forecasts:

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

	2017 (For)	Milk Equivalent (Bil. Lbs.)		2018 (For)	Milk Equivalent (Bil. Lbs)	
		Fat	Skims		Fat	Skims
NON-FAT DRY AND SKIM MILK PWDR	594,688 MT	0.3	14.0	635,000 MT	0.3	15.0
MILK POWDER > 1.5% MILK FAT	25,820 MT	0.4	0.4	24,000 MT	0.3	0.4
BUTTER/MILKFAT/SPREADS	27,475 MT	1.4	0.0	27,400 MT	1.3	0.0
CHEESE AND CURD	339,225 MT	5.3	2.7	356,700 MT	5.6	3.0
FLUID PRODUCTS 4/	143,002 Liters	0.5	0.3	146,100 Liters	0.5	0.3
DRIED WHEY PRODUCTS	530,372 MT	0.7	12.3	548,500 MT	0.7	12.7
LACTOSE	354,396 MT	0.0	8.7	355,000 MT	0.0	8.7
OTHER DAIRY PRODUCTS	178,214 MT	0.6	1.7	179,750 MT	0.6	1.7
<b>TOTAL - Billion Pounds</b>		<b>9.1</b>	<b>40.1</b>		<b>9.4</b>	<b>41.8</b>

Note: 1) CY 2017 includes actual exports through October 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

**Additional Resources:**

For additional information, please contact Paul Kiendl at 202-720-8870 or [Paul.Kiendl@fas.usda.gov](mailto:Paul.Kiendl@fas.usda.gov) or Lindsay Kuberka at 202-644-4650 or [Lindsay.Kuberka@fas.usda.gov](mailto:Lindsay.Kuberka@fas.usda.gov)

Subscription services for FAS circulars can be obtained at:  
<https://public.govdelivery.com/accounts/USDAFAS/subscriber/new>

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 July 2018.

## Cows Milk Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017	2018 Dec
<b>Cows Milk Production</b>						
Argentina	11,519	11,326	11,552	10,191	10,090	10,700
Australia	9,315	9,658	10,091	9,486	9,300	9,530
Belarus	6,640	6,705	7,044	7,140	7,300	7,425
Brazil	24,259	25,489	24,770	22,726	23,550	23,980
Canada	8,443	8,437	8,773	9,081	9,450	9,800
China	34,300	37,250	37,550	36,020	35,500	36,500
European Union	140,100	146,500	150,200	151,000	151,700	152,100
India	57,500	60,500	64,000	68,000	72,000	76,000
Japan	7,508	7,334	7,379	7,394	7,280	7,240
Korea, South	2,093	2,214	2,169	2,070	2,081	2,091
Mexico	11,294	11,464	11,736	11,956	12,100	12,230
New Zealand	20,200	21,893	21,587	21,224	21,540	21,850
Russia	30,529	30,499	30,548	30,510	30,600	30,550
Taiwan	358	363	374	380	380	375
Ukraine	11,189	11,152	10,584	10,375	10,300	10,250
Others	19	20	13	14	15	0
<b>Subtotal</b>	375,266	390,804	398,370	397,567	403,186	410,621
<b>United States</b>	91,277	93,485	94,619	96,343	97,840	99,473
<b>World Total</b>	466,543	484,289	492,989	493,910	501,026	510,094
<b>Fluid Use Dom. Consum.</b>						
Argentina	2,065	2,044	2,084	1,850	1,840	1,925
Australia	2,494	2,600	2,700	2,550	2,530	2,550
Belarus	1,010	1,054	1,065	1,050	1,050	1,050
Brazil	9,036	9,660	9,573	9,600	10,000	10,010
Canada	2,982	2,946	2,923	2,917	2,900	2,950
China	14,350	15,150	15,360	14,600	14,792	14,880
European Union	33,800	34,066	33,800	33,600	33,550	33,500
India	54,400	57,000	59,750	62,750	65,200	66,800
Japan	3,975	3,911	3,935	3,992	3,970	3,950
Korea, South	1,587	1,540	1,529	1,500	1,540	1,568
Mexico	4,160	4,180	4,185	4,183	4,184	4,185
New Zealand	451	495	497	497	500	500
Russia	10,150	9,859	9,500	8,960	8,600	8,300
Taiwan	356	369	384	397	408	408
Ukraine	5,316	5,538	5,385	5,241	5,199	5,150
Others	58	62	54	58	61	0
<b>Subtotal</b>	146,190	150,474	152,724	153,745	156,324	157,726
<b>United States</b>	27,334	27,060	26,668	26,487	26,320	26,200
<b>World Total</b>	173,524	177,534	179,392	180,232	182,644	183,926

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

	2013	2014	2015	2016	2017	2018 Dec
<b>Cows In Milk</b>						
Argentina	2,100	1,826	1,786	1,720	1,672	1,683
Australia	1,650	1,700	1,705	1,690	1,660	1,670
Belarus	1,519	1,525	1,533	1,512	1,520	1,525
Brazil	16,599	16,825	17,426	17,430	17,650	17,950
Canada	961	955	954	945	945	945
China	8,350	8,400	8,400	8,000	7,500	7,500
European Union	23,193	23,468	23,559	23,595	23,507	23,500
India	48,250	50,500	52,500	54,500	56,500	58,500
Japan	798	773	750	752	735	730
Korea, South	206	208	197	194	190	191
Mexico	6,300	6,350	6,400	6,450	6,500	6,550
New Zealand	5,005	5,176	5,056	4,995	4,900	4,925
Philippines	16	18	10	11	12	0
Russia	8,250	8,050	7,750	7,235	7,000	6,800
Taiwan	60	60	62	61	61	60
Ukraine	2,554	2,509	2,322	2,226	2,172	2,100
<b>Subtotal</b>	125,811	128,343	130,410	131,316	132,524	134,629
<b>United States</b>	9,224	9,257	9,314	9,328	9,394	9,434
<b>World Total</b>	135,035	137,600	139,724	140,644	141,918	144,063

## Cheese Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017 Dec	2017 Jul
<b>Production</b>						
Algeria	0	0	0	0	0	nr
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	nr
Mexico	270	275	280	285	293	300
New Zealand	311	325	355	360	355	370
Philippines	2	2	2	2	2	nr
Russia	713	760	861	865	840	865
Taiwan	0	0	0	0	0	0
Ukraine	247	203	190	200	206	206
<b>Total Foreign</b>	13,150	13,437	13,783	13,877	13,971	14,045
<b>United States</b>	5,036	5,222	5,367	5,514	5,545	5,590
<b>Total</b>	18,186	18,659	19,150	19,391	19,516	19,635
<b>Total Dom. Consumption</b>						
Algeria	0	0	0	0	0	nr
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	nr
Mexico	368	370	391	403	418	425
New Zealand	39	40	35	35	40	35
Philippines	16	20	21	23	25	nr
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
<b>Total Foreign</b>	12,779	12,981	13,240	13,300	13,238	13,474
<b>United States</b>	4,839	4,977	5,149	5,369	5,440	5,384
<b>Total</b>	17,618	17,958	18,389	18,669	18,678	18,858

## Cheese Trade: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017	2018 Dec
<b>Total Exports</b>						
Argentina	51	56	43	53	45	50
Australia	163	151	171	167	170	180
Belarus	140	167	183	205	187	185
European Union	787	721	719	800	830	880
New Zealand	277	278	327	355	350	360
Others	107	68	55	55	55	52
<b>Total Foreign</b>	1,525	1,441	1,498	1,635	1,637	1,707
<b>United States</b>	316	368	317	287	339	357
<b>Total</b>	1,841	1,809	1,815	1,922	1,976	2,064
<b>Total Imports</b>						
Australia	69	80	89	99	120	120
Japan	236	232	249	258	265	270
Korea, South	85	97	112	110	125	125
Mexico	103	99	116	126	129	135
Russia	463	349	220	230	230	235
Others	205	201	181	221	207	195
<b>Total Foreign</b>	1,161	1,058	967	1,044	1,076	1,080
<b>United States</b>	113	127	157	165	139	132
<b>Total</b>	1,274	1,185	1,124	1,209	1,215	1,212

## Butter Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017	2018 Dec
<b>Production</b>						
Algeria	0	0	0	0	0	0
Argentina	60	52	50	34	32	37
Australia	117	125	120	110	103	105
Belarus	99	107	113	120	125	130
Brazil	83	85	83	82	84	85
Canada	95	88	91	93	120	127
European Union	2,100	2,250	2,335	2,345	2,310	2,320
India	4,745	4,887	5,035	5,200	5,400	5,600
Japan	68	61	65	66	59	57
Mexico	195	207	216	217	218	220
New Zealand	535	580	594	564	535	540
Russia	219	252	260	246	262	260
Taiwan	0	0	0	0	0	0
Ukraine	93	115	103	103	107	104
<b>Total Foreign</b>	<b>8,409</b>	<b>8,809</b>	<b>9,065</b>	<b>9,180</b>	<b>9,355</b>	<b>9,585</b>
<b>United States</b>	<b>845</b>	<b>842</b>	<b>839</b>	<b>834</b>	<b>838</b>	<b>850</b>
<b>Total</b>	<b>9,254</b>	<b>9,651</b>	<b>9,904</b>	<b>10,014</b>	<b>10,193</b>	<b>10,435</b>
<b>Domestic Consumption</b>						
Algeria	0	0	0	0	0	0
Argentina	41	38	41	29	30	31
Australia	85	89	95	102	111	115
Belarus	49	53	43	43	45	47
Brazil	87	80	84	89	91	92
Canada	102	99	106	117	124	133
European Union	2,031	2,162	2,150	2,181	2,185	2,190
India	4,735	4,876	5,032	5,196	5,392	5,603
Japan	72	75	77	72	66	68
Mexico	239	236	249	267	265	272
New Zealand	22	22	24	28	30	32
Russia	357	376	350	350	365	377
Taiwan	19	22	25	24	23	26
Ukraine	100	116	97	93	86	91
<b>Total Foreign</b>	<b>7,939</b>	<b>8,244</b>	<b>8,373</b>	<b>8,591</b>	<b>8,813</b>	<b>9,077</b>
<b>United States</b>	<b>782</b>	<b>794</b>	<b>831</b>	<b>852</b>	<b>857</b>	<b>873</b>
<b>Total</b>	<b>8,721</b>	<b>9,038</b>	<b>9,204</b>	<b>9,443</b>	<b>9,670</b>	<b>9,950</b>

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

	2013	2014	2015	2016	2017	2018 Dec
<b>Total Imports</b>						
Russia	140	137	90	103	115	115
Mexico	50	37	43	65	55	60
Taiwan	19	22	25	24	23	26
Australia	21	23	23	30	33	25
Canada	7	11	17	27	23	15
European Union	44	52	27	23	20	15
Japan	4	11	16	12	8	10
Brazil	5	1	2	7	7	7
India	1	1	6	6	4	4
New Zealand	1	1	1	2	2	1
Algeria	0	0	0	0	0	0
Argentina	1	0	0	0	1	0
Belarus	0	1	0	0	0	0
Ukraine	14	11	1	1	0	0
<b>Total Foreign</b>	307	308	251	300	291	278
<b>United States</b>	12	22	38	50	45	48
<b>Total</b>	319	330	289	350	336	326
<b>Total Exports</b>						
New Zealand	508	560	552	554	470	505
European Union	122	142	183	213	170	145
Belarus	50	55	70	77	80	83
Australia	50	44	35	30	20	30
Ukraine	3	5	11	9	22	13
India	10	10	9	9	12	10
Mexico	6	8	10	15	8	8
Argentina	19	14	9	6	5	5
Russia	2	4	3	4	3	3
Canada	4	2	1	1	1	1
Algeria	0	0	0	0	0	0
Brazil	1	6	1	0	0	0
Japan	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
<b>Total Foreign</b>	775	850	884	918	791	803
<b>United States</b>	93	74	23	27	28	28
<b>Total</b>	868	924	907	945	819	831

## Nonfat Dry Milk Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017	2018 Dec
<b>Production</b>						
Australia	208	228	266	238	224	228
Brazil	151	154	155	153	157	162
European Union	1,250	1,550	1,715	1,735	1,660	1,685
India	490	520	540	540	570	600
New Zealand	404	415	410	414	375	395
Others	582	610	645	620	638	660
<b>Total Foreign</b>	<b>3,085</b>	<b>3,477</b>	<b>3,731</b>	<b>3,700</b>	<b>3,624</b>	<b>3,730</b>
<b>United States</b>	<b>956</b>	<b>1,047</b>	<b>1,029</b>	<b>1,049</b>	<b>1,065</b>	<b>1,080</b>
<b>Total</b>	<b>4,041</b>	<b>4,524</b>	<b>4,760</b>	<b>4,749</b>	<b>4,689</b>	<b>4,810</b>
<b>Total Dom. Consumption</b>						
China	289	300	244	223	290	315
European Union	848	887	981	809	936	937
India	400	446	492	531	574	601
Mexico	250	247	301	325	335	358
Russia	185	181	186	191	193	193
Others	1,089	1,062	1,080	1,103	1,131	1,007
<b>Total Foreign</b>	<b>3,061</b>	<b>3,123</b>	<b>3,284</b>	<b>3,182</b>	<b>3,459</b>	<b>3,411</b>
<b>United States</b>	<b>424</b>	<b>458</b>	<b>487</b>	<b>448</b>	<b>413</b>	<b>476</b>
<b>Total</b>	<b>3,485</b>	<b>3,581</b>	<b>3,771</b>	<b>3,630</b>	<b>3,872</b>	<b>3,887</b>

## Nonfat Dry Milk Trade: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017	2018 Dec
<b>Total Imports</b>						
Mexico	198	203	259	286	310	330
China	235	253	200	184	255	275
Indonesia	225	215	205	173	165	170
Algeria	120	168	136	119	170	160
Russia	131	103	120	129	125	125
Japan	32	43	53	34	55	55
Korea, South	20	21	21	20	26	35
Brazil	24	23	35	35	30	28
Taiwan	21	23	25	23	25	26
Chile	7	5	10	12	17	18
Australia	5	6	10	6	8	5
Canada	3	6	3	4	4	4
European Union	5	2	3	4	2	2
India	0	1	0	0	1	1
New Zealand	5	4	5	3	1	1
Argentina	0	0	0	0	0	0
Belarus	1	3	0	1	0	0
Philippines	113	95	100	185	170	0
Ukraine	2	1	0	0	0	0
<b>Total Foreign</b>	<b>1,147</b>	<b>1,175</b>	<b>1,185</b>	<b>1,218</b>	<b>1,364</b>	<b>1,235</b>
<b>United States</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Total</b>	<b>1,148</b>	<b>1,178</b>	<b>1,187</b>	<b>1,219</b>	<b>1,365</b>	<b>1,236</b>
<b>Total Exports</b>						
European Union	407	648	692	574	759	780
New Zealand	392	383	411	444	400	405
Australia	119	164	201	163	165	170
Belarus	96	92	122	111	115	115
Canada	13	13	14	24	75	85
Ukraine	12	28	35	34	32	35
Argentina	25	22	24	26	21	23
Mexico	0	0	0	3	20	22
India	130	61	18	19	12	15
Russia	3	3	2	1	1	2
Indonesia	1	1	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
Chile	0	2	1	2	1	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
<b>Total Foreign</b>	<b>1,204</b>	<b>1,424</b>	<b>1,523</b>	<b>1,403</b>	<b>1,603</b>	<b>1,653</b>
<b>United States</b>	<b>555</b>	<b>544</b>	<b>560</b>	<b>593</b>	<b>595</b>	<b>635</b>
<b>Total</b>	<b>1,759</b>	<b>1,968</b>	<b>2,083</b>	<b>1,996</b>	<b>2,198</b>	<b>2,288</b>

## Whole Milk Powder Production And Consumption: Summary For Selected Countries

1,000 Metric Tons

	2013	2014	2015	2016	2017	2018 Dec
<b>Production</b>						
Argentina	277	258	252	157	146	160
Brazil	549	612	610	550	598	610
China	1,200	1,350	1,617	1,375	1,400	1,450
European Union	667	720	710	720	725	740
New Zealand	1,300	1,460	1,380	1,330	1,380	1,390
Others	542	514	479	436	491	500
<b>Total Foreign</b>	4,535	4,914	5,048	4,568	4,740	4,850
<b>United States</b>	33	47	49	45	55	55
<b>Total</b>	4,568	4,961	5,097	4,613	4,795	4,905
<b>Total Dom. Consumption</b>						
Algeria	170	180	214	222	245	280
Brazil	600	603	628	662	664	666
China	1,746	1,845	1,910	1,992	1,998	2,073
European Union	296	331	314	345	336	343
Indonesia	121	123	116	122	127	130
Others	691	653	718	529	527	520
<b>Total Foreign</b>	3,624	3,735	3,900	3,872	3,897	4,012
<b>United States</b>	24	28	49	40	57	63
<b>Total</b>	3,648	3,763	3,949	3,912	3,954	4,075

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

	2013	2014	2015	2016	2017	2018 Dec
<b>Total Imports</b>						
Afghanistan	0	0	0	0	0	0
Algeria	142	204	224	224	285	275
Argentina	0	0	0	0	0	0
Australia	8	9	11	16	25	30
Belarus	0	0	0	0	0	0
Brazil	54	30	59	126	70	60
Chile	8	4	7	7	10	10
China	619	671	347	420	500	600
European Union	3	1	4	6	1	3
Indonesia	51	50	44	52	45	50
Mexico	11	7	7	12	4	4
New Zealand	1	1	7	4	4	4
Russia	44	36	38	48	52	50
Taiwan	31	33	34	30	30	31
Venezuela	170	134	195	58	20	20
Others	30	20	17	22	20	0
<b>Total Foreign</b>	<b>1,172</b>	<b>1,200</b>	<b>994</b>	<b>1,025</b>	<b>1,066</b>	<b>1,137</b>
<b>United States</b>	<b>7</b>	<b>7</b>	<b>9</b>	<b>15</b>	<b>24</b>	<b>25</b>
<b>Total</b>	<b>1,179</b>	<b>1,207</b>	<b>1,003</b>	<b>1,040</b>	<b>1,090</b>	<b>1,162</b>
<b>Total Exports</b>						
Afghanistan	0	0	0	0	0	0
Algeria	0	0	0	0	0	0
Argentina	182	144	138	110	73	80
Australia	96	81	65	70	55	65
Belarus	46	31	38	29	30	30
Brazil	3	39	41	14	4	4
Chile	19	21	6	7	4	5
China	3	6	4	3	2	2
European Union	374	390	400	381	390	400
Indonesia	0	0	0	0	0	0
Mexico	5	6	11	20	32	35
New Zealand	1,291	1,423	1,380	1,344	1,340	1,380
Philippines	13	8	21	27	5	0
Russia	1	1	2	1	1	2
Ukraine	1	2	2	2	4	3
Others	0	0	0	0	0	0
<b>Total Foreign</b>	<b>2,034</b>	<b>2,152</b>	<b>2,108</b>	<b>2,008</b>	<b>1,940</b>	<b>2,006</b>
<b>United States</b>	<b>16</b>	<b>18</b>	<b>15</b>	<b>19</b>	<b>17</b>	<b>20</b>
<b>Total</b>	<b>2,050</b>	<b>2,170</b>	<b>2,123</b>	<b>2,027</b>	<b>1,957</b>	<b>2,026</b>