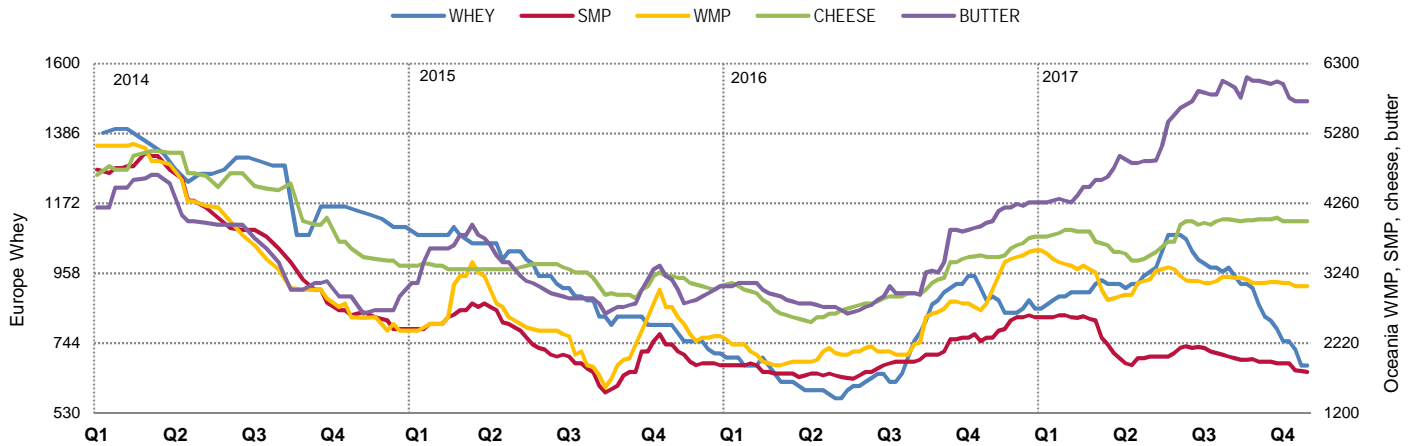


2014-17 PRICE TREND - SMP, WMP, CHEESE, BUTTER, WHEY*

(\$/MT)



*Indicative prices. Milk powder, cheese and butterfat are Oceania; whey is western Europe.

Source: USDEC and commercial sources.

EU supply weighing on global markets

By Alan Levitt and Marc Beck

Heavy European milk production and fresh concern about the European Commission's handling of burgeoning skim milk powder (SMP) stocks, plus the crash of the butter market from record-high prices, have turned market sentiment sour heading into the final stretch of 2017.

After a year of declining milk production among the five major exporters (EU, United States, New Zealand, Australia and Argentina), supply began to expand this summer. Output was up more than 2% in the June-August period, and is projected to run 2.0% to 2.5% higher in September-December. Output in the first half of 2018 is expected to be up near 2% as well.

For context, growth in global import demand can typically support exporter milk-production growth of about 1.5%, year-over-year. Faster expansion and the market usually has too much milk.

Increases across Europe are the big driver. EU milk production was up nearly 3% in Q3, and is expected to be up even more in Q4. Ireland and Poland have led the pack all year, and now Germany, France and the Netherlands are expanding as well.

Meanwhile, New Zealand initially had been set up for a very strong flush, with lower slaughter, record PKE imports, greater use of blended supplements and better-than-break-even milk checks. But a deluge of rain fell on the major milk sheds and took the top off the flush. Production in Q3 was down 1%.

Warmer weather the last couple weeks is drying out pastures and there is still plenty of time to recover. We still look for New Zealand output growth of +2-3% in 2017/18.

OCTOBER INDICATIVE PRICES - USDEC sources
\$/MT, FOB SHIP (with change from September)

	EUROPE	OCEANIA
SMP	1819 (-150)	1872 (-72)
WMP	3294 (-344)	3075 (-31)
Cheddar	4325 (+19)	4000 (-31)
Butter	7163 (-1094)	5825 (-203)
Dry whey	725 (-97)	
WPC-34%	1800 (-163)	
Lactose	750 (-150)	

Prices are monthly averages. Source: USDEC.

Continued on p. 2

From p. 1

U.S. producers are contributing to the gains, too. U.S. milk production was up nearly 2% in the first three-quarters of the year. Slower growth is expected in the months ahead, though probably not much lower than the historical annual growth rate of 1.6%.

And Australia has returned to modest growth after dropping to a 20-year low in the 2016/17 season. Output was up 1% in the June-September period; an increase of 1-3% is forecast for the full 2017/18.

In both Europe and New Zealand, processors are encouraging production with farmgate milk prices 30-40% more than what they paid the last three years. Product prices have softened, so eventually milk prices will come down. But lags in the transmission process mean farmers will keep getting the signal to push production for another 6-9 months.

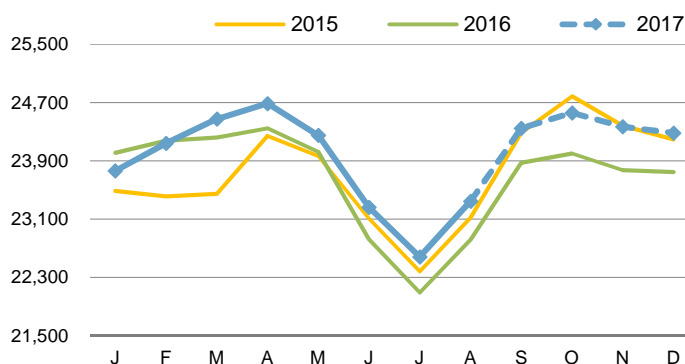
EU intervention

On top of this growing supply sits the long shadow of EU intervention stocks – now about 380,000 tons of aging SMP.

Intervention is closed until March, so the price floor (€1698/ton, or about \$2000/ton) is gone. European prices have already drifted \$200 to \$300 below that level. Last year the EU extended the intervention period and increased the volumes accepted. It would be very difficult to justify doing that this year with milk prices so much higher.

Now the big concern is the potential for additional selling into intervention when it re-opens in March. The regulations say the Commission is supposed to take 109,000 tons/year at the fixed price of €1698/ton. Earlier this month, however, Commissioner Hogan floated the idea of eliminating the fixed price and going to a tender system to avoid further build-up. Meanwhile, the EC

TOTAL MILK PRODUCTION FROM MAJOR EXPORTERS (000 MT)



Includes EU-28, U.S., New Zealand, Australia and Argentina. EU and Argentina are milk deliveries. 30-day months. September-December 2017 is USDEC forecast.

Source: USDA, EuroStat, DairyAustralia, DCANZ, Argentina Ministry of Agriculture.

recently accepted a small bid to sell product out of intervention for just €1440/ton (about \$1695/ton), an indication of the direction it’s likely to go.

In the past, intervention stock has trickled out into feed markets and into domestic donation programs. The prospect of this aging SMP hitting the feed sector this time around is depressing whey markets. WPC-34 has stayed closely tethered to SMP all year, but dry whey, which has been falling since Q2, still has to come down further to align with other ingredients on a price-per-pound-of-protein basis.

Increasing EU SMP production represents another challenge. Production was up 4% in June-August. As processors moved to produce more butter to meet the market-wide shortage, they’ve made more SMP too.

Record-high U.S. NDM inventories add to the glut. At the end of August, stocks were 140,000 tons. That puts combined EU and

Continued on p. 3

ABOUT THIS ISSUE

Global Dairy Market Outlook is written and distributed by the U.S. Dairy Export Council (USDEC), 2107 Wilson Blvd., Suite 600, Arlington, VA 22201, USA, (703) 528-3049, FAX (703) 528-3705, website www.usdec.org. Data is compiled and analyzed by Alan Levitt, vice president of communications and market analysis, and Marc Beck, executive vice president of strategy and insights. Analysis is supported by USDEC’s network of 10 international offices.

© Copyright 2017 U.S. Dairy Export Council. All rights reserved by copyright owners. Reproduction of all portions of this newsletter is permitted with proper credit to U.S. Dairy Export Council.

This issue of Global Dairy Market Outlook covers conditions in late October 2017. **For up-to-date market data and commentary, visit the USDEC website at www.usdec.org/research-and-data/market-data.**

USDEC uses sources believed to be reliable but cannot warrant the accuracy of the information herein. Global Dairy Market Outlook is solely for information purposes and is not to be construed as commercial trading advice.

The U.S. Dairy Export Council, primarily funded by Dairy Management Inc. through the producer checkoff, works closely with its member processors, trading companies and others to build global demand for U.S. dairy products.

From p. 2

U.S. holdings, both government and commercial, at about 600,000 tons, more than triple the normal working level.

Canada’s new export push compounds the problems of excess powder supply on the world market. For years, Canada exported about 1,000 tons a month. Now they’re shipping 8,000 to 10,000 tons of SMP per month. This is not incidental volume; it’s equivalent to about 5% of world trade.

They’ve accomplished this with very aggressive pricing. Average export unit values are about \$1850/ton this year, \$200-\$300 less than offerings from the United States, Europe or New Zealand. This, too, puts downward pressure on the global market.

Butter

The European butter market crashed hard after topping \$8000/ton this summer. Prices fell near \$2000/ton in a matter of weeks, an indication that buyers were sufficiently covered for near-term needs. Price-sensitive buyers balked when prices nearly doubled from February to August and they still haven’t come back. Meanwhile, production has improved slightly; output was up 1% in July-August, after running a 10,500-ton-per-month deficit in the first half of the year.

But the fat market isn’t in all-out free-fall. It’s just correcting from the summer spike. The price could lose another \$500 or so and then the market should stabilize. Product-stream valuations favor cheese production vs. butter/powder, so supplies will still be fundamentally limited in 2018.

Demand

On the demand side, it’s telling that Global Dairy Trade prices fell in October despite declining production in New Zealand. That suggests demand may face more headwinds than previously thought.

In our view, healthy demand growth numbers this spring/summer reflected some forward buying that allowed importers to move to the sidelines when the market started declining in Q3. Without seeing much upside for price in the near-term, no one wants to “catch the falling knife” – opting to hold off to see how far prices will tumble.

The summer buying binge was led by China. After a slow start in 2017, China imports (milk equivalent) in June-September were up 30%, year-over-year, led by a 79% gain in purchases of milk powder.

Mexico’s appetite also remains strong. Imports were up 11% in the first seven months of the year, including record purchases (+24%) of SMP/NDM. Gains are driven by low commodity prices and a

stronger peso this year, which improves Mexico’s purchasing power. In recent years, Mexico has bought more powder when U.S. NDM prices are below 38,000 pesos/ton. NDM is currently trading at about 34,000 pesos/ton, which bodes well for continued import strength.

Keep an eye on shifts in supply lines, though. Last year, the United States supplied 94% of Mexico’s SMP/NDM imports. In May-July 2017, the United States’ share of imports was just 77%, while Mexico bought more from Europe and Canada.

Imports by South Korea, Japan and parts of Southeast Asia also are higher this year. The main outlier in recent months is Indonesia, where imports of milk powder and whey products were down 12% in May-July.

Despite the potential slowdown in trade volumes in Q4, global trade this year is on track to post its strongest growth since 2014. SMP and cheese are the headliners. In the first eight months of the year, SMP exports from the top suppliers, an indicator of global trade volumes, were up 14% from last year. Cheese exports were up 7%. Improved SMP shipments are a function of low prices and the EU selling to overseas customers instead of intervention warehouses, as they did last year. Improved cheese shipments reflect ongoing robust demand, which is translating into steady/firm global prices.

These trade-volume gains have been achieved without much help from the large Middle East/North Africa (MENA) region. MENA imports were down 14% in the first seven months of the year, with significantly lower purchases from Saudi Arabia, Egypt, UAE and Oman. Lower commodity prices could unlock some demand growth over the next year in this price-sensitive region, but oil prices don’t show any sign of breaking out of the \$50-\$60/barrel range.

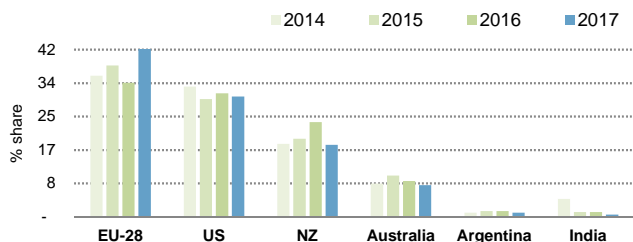
Outlook

Looking ahead, we expect the markets to remain oversupplied through the first half of 2018. Conditions should move toward balance in the second half of next year, but we may still be dealing with an overhang from earlier excesses.

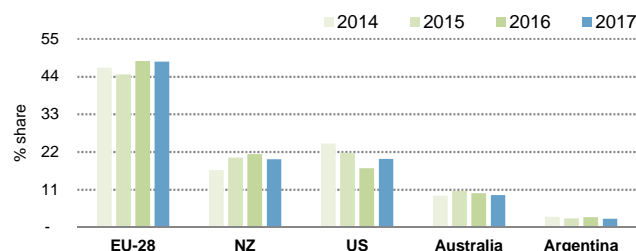
Lower prices should drive trade volume in 2018. In other words, we expect good volumes, albeit at lower prices.

With production growth and a slowdown in domestic consumption, the United States will have product to sell into the world market. However, Europe will, too. The EU has increased its exports for four straight years. Incremental milk production growth will go into cheese, and Europe will need to continue to be aggressive in that market. Likewise, they’ll continue to have an imbalance in powder supply, and need to clear that as well. ♦

SMP/NDM EXPORTS - SHARE OF SELECTED 6 (JAN-AUG)



CHEESE EXPORTS - SHARE OF SELECTED 5 (JAN-AUG)



World Dairy Exports

SMP EXPORTS

	LATEST MONTH		AUGUST (VOLUME, MT)	
	2015	2016	2017	% CHG
EU-28	53,879	37,291	66,998	+80
U.S. *	42,779	53,612	49,046	-9
NZ	17,605	18,598	7,890	-58
Australia	13,374	8,066	8,042	-0
Argentina	666	470	-	-100
TOTAL OF 5	128,303	118,037	131,976	+12

	YEAR-TO-DATE			
	JANUARY-AUGUST (VOLUME, MT)			
	2015	2016	2017	% CHG
EU-28	477,900	390,915	560,077	+43
U.S. *	372,185	360,219	400,454	+11
NZ	246,247	276,008	239,376	-13
Australia	130,396	104,045	104,781	+1
Argentina	14,351	13,519	7,150	-47
TOTAL OF 5	1,241,079	1,144,706	1,311,838	+15

WMP EXPORTS

	LATEST MONTH		AUGUST (VOLUME, MT)	
	2015	2016	2017	% CHG
NZ	54,464	45,250	35,492	-22
EU-28	31,504	33,701	36,054	+7
Argentina	8,589	8,841	6,219	-30
Australia	3,542	5,792	4,353	-25
U.S. *	2,894	1,868	2,741	+47
TOTAL OF 5	100,993	95,452	84,859	-11

	YEAR-TO-DATE			
	JANUARY-AUGUST (VOLUME, MT)			
	2015	2016	2017	% CHG
NZ	858,288	814,510	825,693	+1
EU-28	274,578	275,454	280,643	+2
Argentina	78,279	73,480	38,634	-47
Australia	42,963	45,285	35,815	-21
U.S. *	26,090	17,826	15,327	-14
TOTAL OF 5	1,280,198	1,226,555	1,196,112	-2

CHEESE EXPORTS

	LATEST MONTH		AUGUST (VOLUME, MT)	
	2015	2016	2017	% CHG
EU-28	57,404	68,350	71,143	+4
NZ	19,791	20,387	15,875	-22
U.S.	22,687	22,453	30,370	+35
Australia	13,239	9,723	11,486	+18
Argentina	4,837	4,556	3,762	-17
TOTAL OF 5	117,958	125,469	132,636	+6

	YEAR-TO-DATE			
	JANUARY-AUGUST (VOLUME, MT)			
	2015	2016	2017	% CHG
EU-28	460,085	523,632	559,451	+7
NZ	209,606	230,514	229,521	-0
U.S.	223,653	186,383	230,613	+24
Australia	109,816	107,647	109,130	+1
Argentina	26,981	31,461	29,053	-8
TOTAL OF 5	1,030,141	1,079,637	1,157,768	+7

BUTTERFAT EXPORTS

	LATEST MONTH		AUGUST (VOLUME, MT)	
	2015	2016	2017	% CHG
NZ	30,256	25,251	12,129	-52
EU-28	12,629	17,372	12,169	-30
U.S.	2,314	957	2,652	+177
Australia	1,612	1,385	802	-42
Argentina	726	370	178	-52
TOTAL OF 5	47,537	45,335	27,930	-38

	YEAR-TO-DATE			
	JANUARY-AUGUST (VOLUME, MT)			
	2015	2016	2017	% CHG
NZ	303,626	315,767	280,063	-11
EU-28	111,031	153,103	123,382	-19
U.S.	17,011	14,910	16,690	+12
Australia	23,214	21,075	10,335	-51
Argentina	6,227	3,610	2,207	-39
TOTAL OF 5	461,109	508,465	432,677	-15

* USDA data for U.S. 2016-17 for NDM/SMP and WMP adjusted to reflect shipments to Mexico misclassified as WMP.

Source: Global Trade Atlas and USDA.

World Dairy Exports

WHEY PRODUCTS EXPORTS

	LATEST MONTH		AUGUST (VOLUME, MT)		% CHG
	2015	2016	2017		
EU-28	41,781	54,444	52,438		-4
U.S.	32,975	47,959	47,992		+0
Switzerland	6,697	5,810	6,103		+5
Argentina	4,658	6,891	5,830		-15
NZ	1,756	1,648	1,835		+11
Australia	1,147	1,950	2,732		+40
TOTAL OF 6	89,014	118,702	116,930		-1

	YEAR-TO-DATE				JANUARY-AUGUST (VOLUME, MT)			
	2015	2016	2017	% CHG	2015	2016	2017	% CHG
EU-28	371,247	399,734	401,587	+0				
U.S.	307,827	322,504	350,302	+9				
Switzerland	61,525	55,975	51,088	-9				
Argentina	38,920	46,838	35,539	-24				
NZ	18,267	29,480	29,641	+1				
Australia	21,509	34,895	25,665	-26				
TOTAL OF 6	819,295	889,426	893,822	+0				

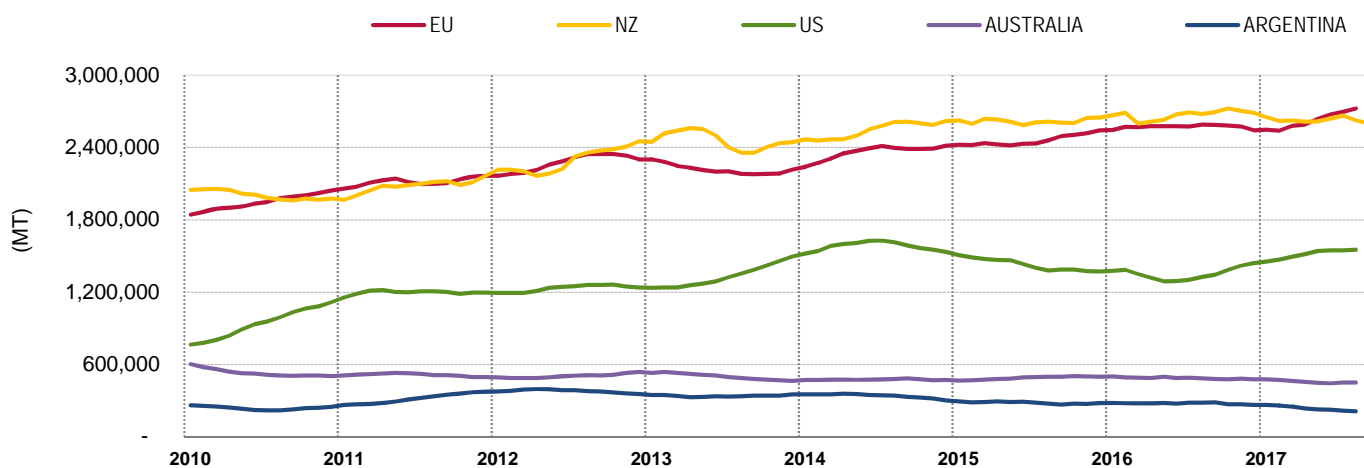
LACTOSE EXPORTS

	LATEST MONTH		AUGUST (VOLUME, MT)		% CHG
	2015	2016	2017		
U.S.	29,440	33,059	29,906		-10
EU-28	13,779	16,955	15,982		-6
NZ	1,846	2,295	1,353		-41
TOTAL OF 3	45,065	52,309	47,241		-10

	YEAR-TO-DATE				JANUARY-AUGUST (VOLUME, MT)			
	2015	2016	2017	% CHG	2015	2016	2017	% CHG
U.S.	239,213	237,816	232,496	-2				
EU-28	116,143	112,792	140,702	+25				
NZ	14,487	15,886	14,337	-10				
TOTAL OF 3	369,843	366,494	387,535	+6				

AGGREGATE EXPORT VOLUME - MAJOR SUPPLIERS - ROLLING 12 MONTHS

SMP, WMP, CHEESE, BUTTERFAT, WHEY



Source: Global Trade Atlas and USDA.

ACCESS TRADE DATA ONLINE

Visit usdec.org/research-and-data/market-data/trade-flows

World Dairy Imports

SMP IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
Mexico	Jul 17	24,933	28,520	+14
China	Sep 17	9,166	16,367	+79
Philippines	Jul 17	13,259	16,432	+24
Indonesia	Jul 17	7,222	12,782	+77
Algeria	Aug 17	12,442	19,439	+56
Malaysia	Jul 17	13,918	13,861	-0

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
Mexico	Jul	154,858	192,267	+24
China	Sep	152,055	201,043	+32
Philippines	Jul	105,491	95,018	-10
Indonesia	Jul	81,034	89,554	+11
Algeria	Aug	77,333	113,401	+47
Malaysia	Jul	79,344	77,456	-2

WMP IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Sep 17	7,214	24,641	+242
Algeria	Aug 17	22,237	22,941	+3
Brazil	Sep 17	14,875	2,824	-81
Sri Lanka	Sep 17	7,000	6,662	-5
Singapore	Sep 17	3,958	3,562	-10
Hong Kong	Sep 17	6,997	8,985	+28

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Sep	344,690	398,093	+15
Algeria	Aug	148,653	192,014	+29
Brazil	Sep	97,882	64,816	-34
Sri Lanka	Sep	60,442	60,245	-0
Singapore	Sep	52,960	53,767	+2
Hong Kong	Sep	63,241	61,818	-2

CHEESE IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
Japan	Aug 17	20,217	21,423	+6
U.S.	Aug 17	16,123	15,167	-6
So. Korea	Sep 17	8,169	11,261	+38
Mexico	Jul 17	8,894	8,882	-0
China	Sep 17	6,358	5,779	-9
Russia	Aug 17	2,656	3,258	+23

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
Japan	Aug	172,732	178,157	+3
U.S.	Aug	131,697	116,836	-11
So. Korea	Sep	81,465	99,336	+22
Mexico	Jul	72,595	73,556	+1
China	Sep	70,401	84,786	+20
Russia	Aug	19,123	22,834	+19

BUTTERFAT IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Sep 17	5,015	3,846	-23
Egypt	Jun 17	8,212	757	-91
Mexico	Jul 17	5,366	2,005	-63
Russia	Aug 17	1,782	1,142	-36
Iran	Jun 17	5,022	3,629	-28
Morocco	Aug 17	2,463	1,413	-43

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Sep	64,641	74,645	+15
Egypt	Jun	36,613	12,160	-67
Mexico	Jul	29,882	28,547	-4
Russia	Aug	12,268	23,978	+95
Iran	Jun	17,601	17,973	+2
Morocco	Aug	18,191	12,352	-32

Russia excludes imports from Belarus. Source: Global Trade Atlas and USDA.

World Dairy Imports

WHEY PRODUCTS IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Sep 17	48,586	44,280	-9
Indonesia	Jul 17	6,366	9,772	+54
Japan	Aug 17	5,534	5,949	+7
Thailand	Sep 17	4,980	6,477	+30
Malaysia	Jul 17	5,698	10,189	+79
Mexico	Jul 17	3,791	5,648	+49

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Sep	387,370	413,321	+7
Indonesia	Jul	63,460	69,456	+9
Japan	Aug	42,933	47,766	+11
Thailand	Sep	47,002	49,243	+5
Malaysia	Jul	43,280	40,832	-6
Mexico	Jul	26,178	28,897	+10

LACTOSE IMPORTS

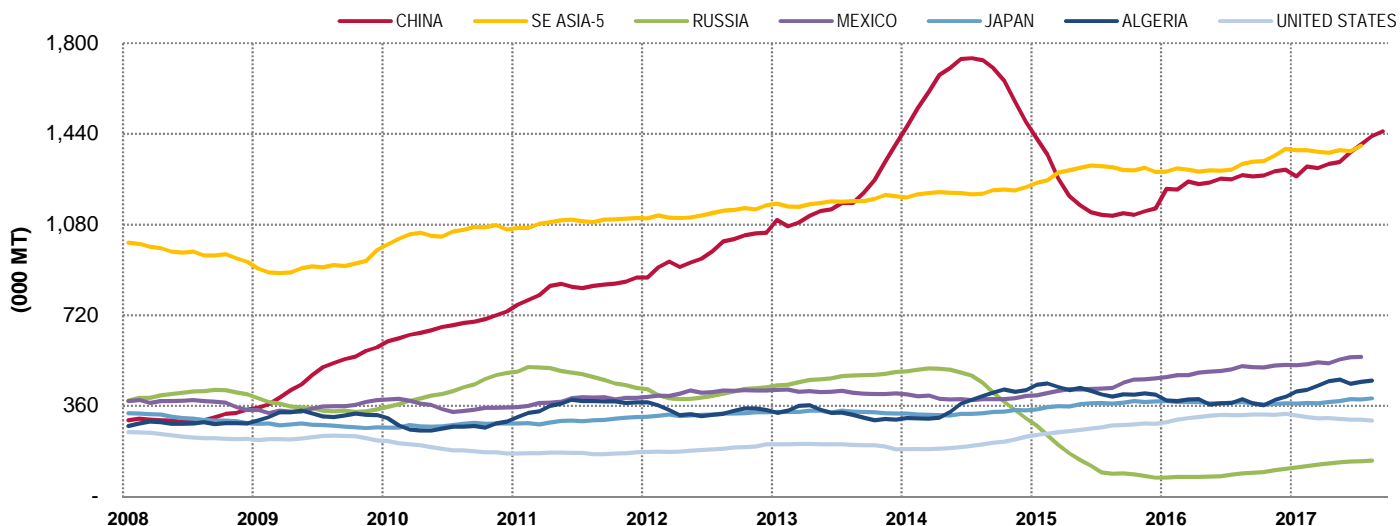
(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Sep 17	6,620	6,715	+1
NZ	Sep 17	5,980	7,010	+17
Japan	Aug 17	6,377	6,557	+3

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Sep	66,175	67,639	+2
NZ	Sep	53,582	69,810	+30
Japan	Aug	48,784	53,209	+9

AGGREGATE IMPORT VOLUME - MAJOR BUYERS - ROLLING 12 MONTHS

SMP, WMP, CHEESE, BUTTERFAT, WHEY



SE Asia-5 includes Indonesia, Malaysia, Philippines, Singapore and Thailand. Russia excludes imports from Belarus.

Source: Global Trade Atlas and USDA.

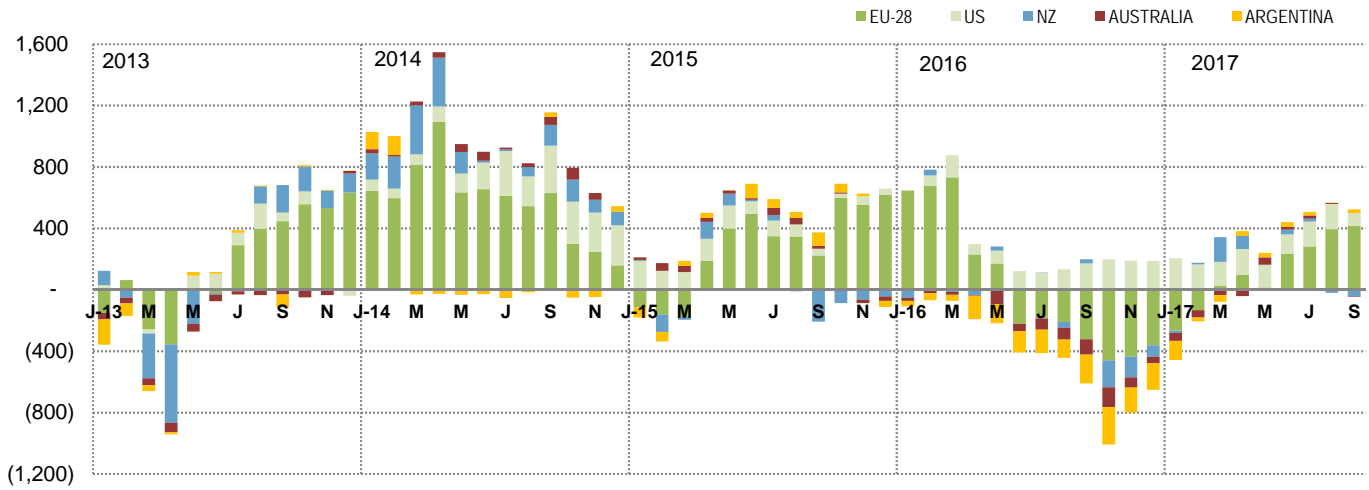
ACCESS TRADE DATA ONLINE

Visit usdec.org/research-and-data/market-data/trade-flows

Global Milk Production

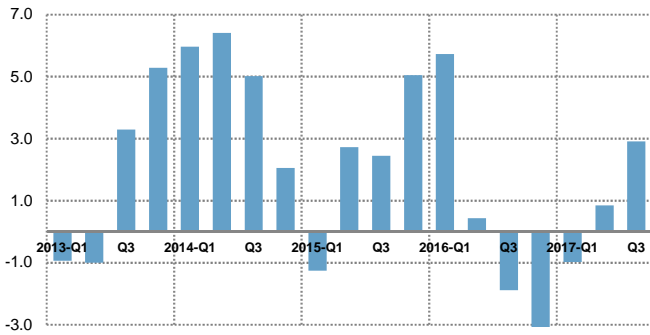
MILK PRODUCTION - CHANGE FROM PRIOR YEAR

(000 MT)

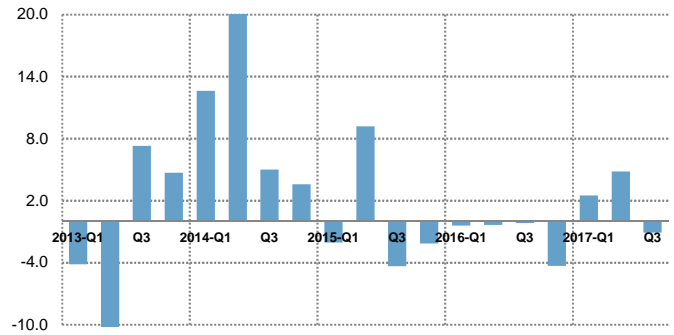


* Feb 2012 and 2016 adjusted for leap day.

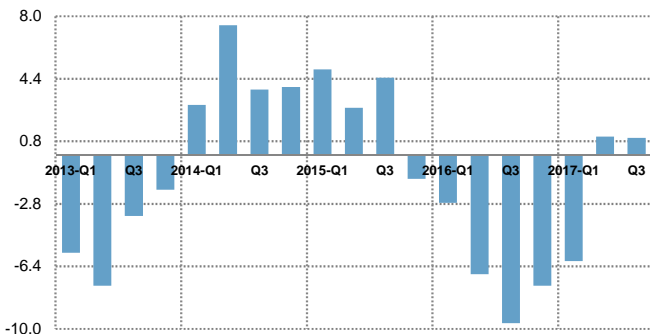
EUROPEAN UNION MILK DELIVERIES (% CHG VS. PRIOR YEAR)



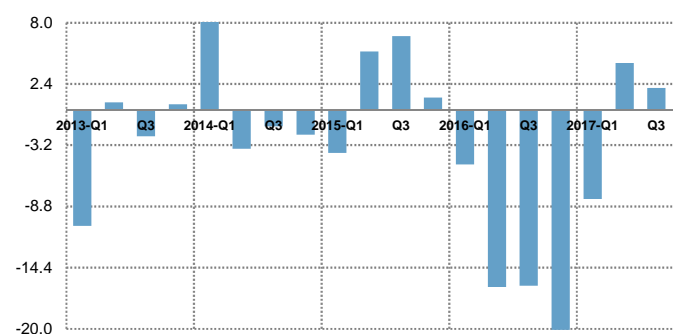
NEW ZEALAND MILK PRODUCTION (% CHG VS. PRIOR YEAR)



AUSTRALIA MILK PRODUCTION (% CHG VS. PRIOR YEAR)



ARGENTINA MILK DELIVERIES (% CHG VS. PRIOR YEAR)



ACCESS MILK PRODUCTION DATA ONLINE

Visit usdec.org/research-and-data/market-data/milk-production

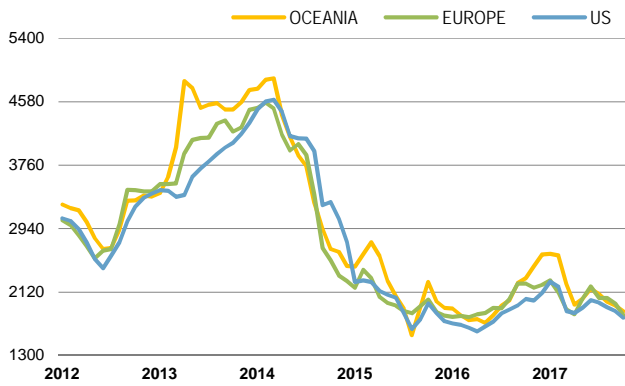
Q1-2012 and Q1-2016 adjusted for leap day.

Latest month may include USDEC estimates.

Source: USDA, EuroStat, DairyAustralia, DCANZ, Argentina Ministry of Agriculture.

World Prices

SMP PRICES (\$/MT)



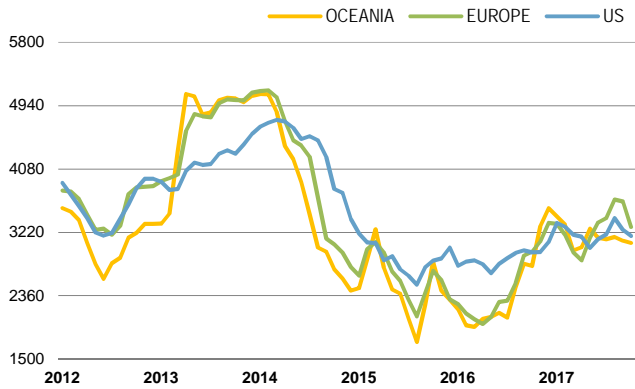
Prices vs. a year ago

	Oceania	Europe	U.S.
SMP	-19%	-18%	-12%
WMP	+11%	+11%	+8%
Cheddar	+15%	+11%	+9%
Butter	+49%	+55%	+27%
Whey		-21%	+16%

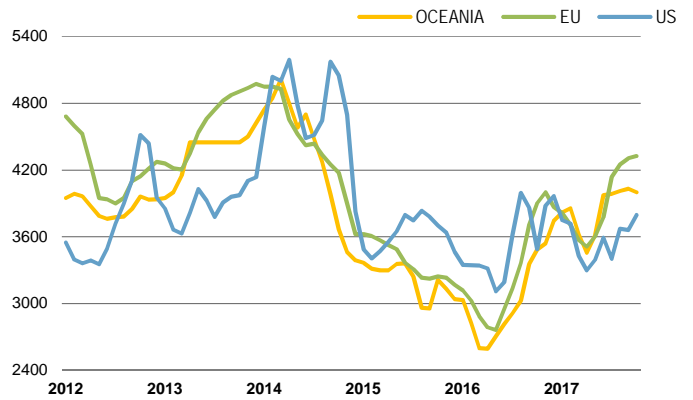
ACCESS PRICING DATA ONLINE

Visit usdec.org/research-and-data/market-data/prices

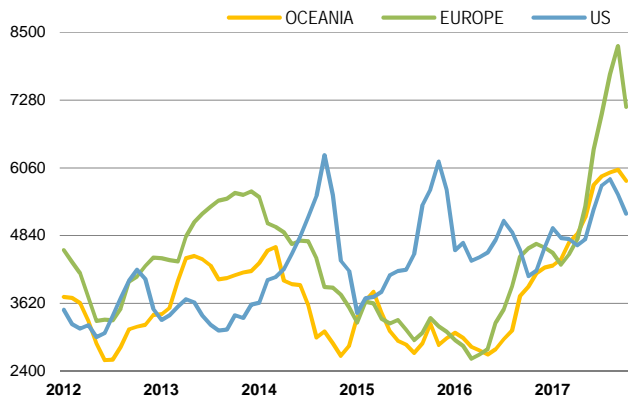
WMP PRICES (\$/MT)



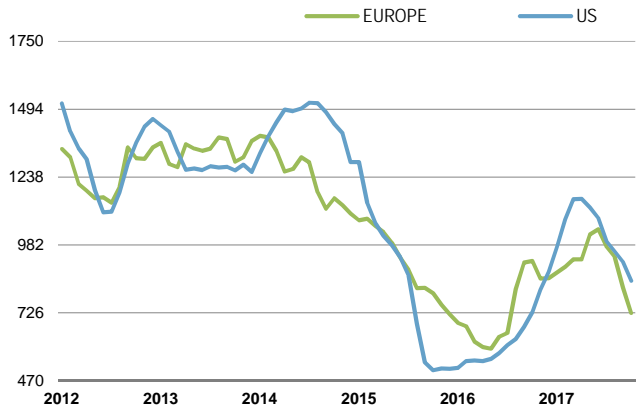
CHEDDAR PRICES (\$/MT)



BUTTER PRICES (\$/MT)



DRY WHEY PRICES (\$/MT)

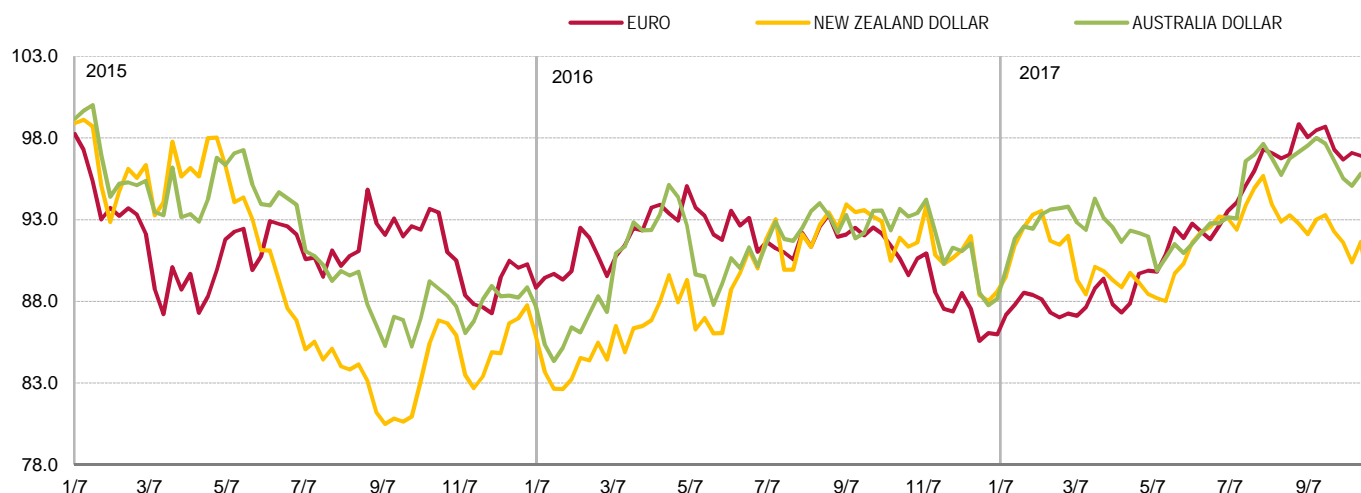


Source: USDEC and commercial sources.

Currency Exchange Rates

EXCHANGE RATES RELATIVE TO U.S. DOLLAR, EXPORTING COUNTRIES

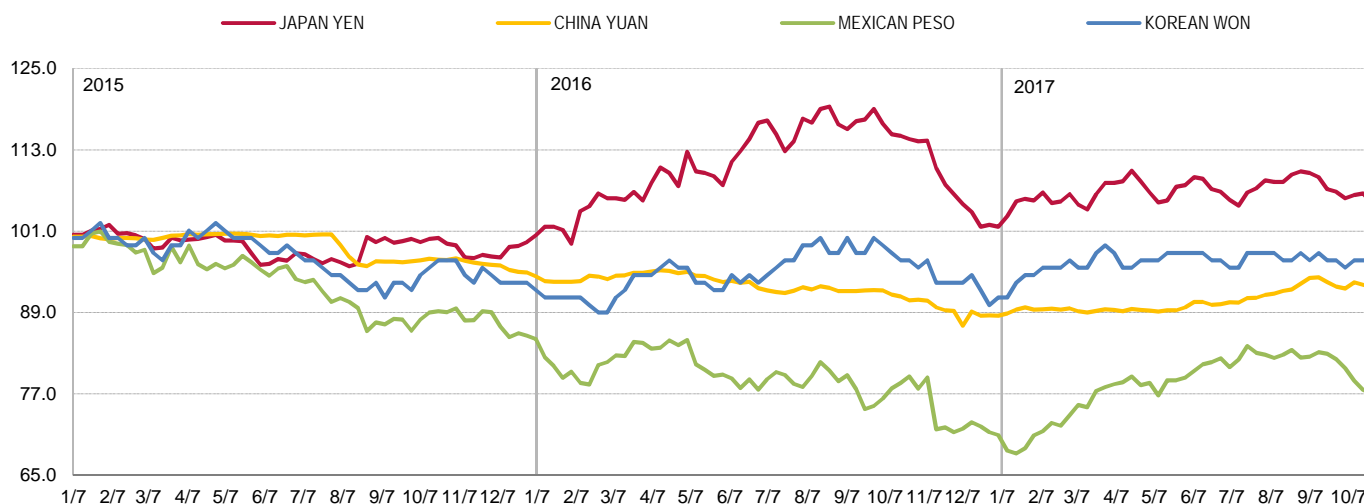
INDEXED TO JAN. 1, 2015



Top chart: If line is trending up, currency is strengthening vs. U.S. dollar (U.S. dollar is weakening). This is favorable for U.S. competitiveness. If line is trending down, currency is weakening vs. U.S. dollar (U.S. dollar is strengthening). This is unfavorable for U.S. competitiveness.

EXCHANGE RATES RELATIVE TO U.S. DOLLAR, IMPORTING COUNTRIES

INDEXED TO JAN. 1, 2015



Bottom chart: If line is trending up, currency is strengthening vs. U.S. dollar (U.S. dollar is weakening). This is favorable for exports, because it increases import purchasing power. If line is trending down, currency is weakening vs. U.S. dollar (U.S. dollar is strengthening). This is unfavorable for exports, because it decreases import purchasing power.

Source: Oanda.com.

U.S. Exports

Cheese sales lift August export volumes

U.S. dairy exports improved in August, posting the second-highest volume in the last 10 months. Cheese led the way and butterfat shipments picked up, offsetting a slowdown in sales of nonfat dry milk/skim milk powder (NDM/SMP), whey products and lactose.

Suppliers shipped 164,279 tons of milk powder, cheese, butterfat, whey and lactose during the month, up 2 percent from last year. U.S. exports were valued at \$469 million, up 17 percent, and slightly above the monthly average since last October. Though export volumes to most destinations were above year-earlier levels, suppliers continue to see slower ingredient sales to Southeast Asia. Shipments of NDM/SMP, whey and lactose were down 21 percent in August. Meanwhile, exports to Mexico were flat, with stronger cheese and whey sales offset by lower milk powder shipments.

Cheese exports in August were 30,370 tons, exceeding last year's volume by 35 percent. For the first time, Australia was the number-two destination for U.S. cheese, taking 3,900 tons, nearly triple the volume of a year ago. Exports to Mexico (+32 percent, +2,047 tons, year-over-year) and Japan (+113 percent, +1,552 tons) were higher as well, and sales to the Middle East/North Africa region (2,075 tons) were the most since December 2015.

Exports of **NDM/SMP** were 49,046 tons (-9 percent) in August, down for the second straight month. Sales to the top two markets were lower; Mexico was down -18 percent (-4,845 tons) and Southeast Asia was down -26 percent (-4,489 tons). (*Note: these calculations reflect adjustments we've made to the USDA data to reflect shipments misclassified as WMP.*)

Whey exports were flat for the second straight month. Total shipments were 47,992 tons, with gains in whey protein concentrate (WPC) and modified whey offsetting double-digit declines in dry whey and whey protein isolate (WPI). August WPC exports were the most in more than a year, while WPI sales were the lowest in nearly two years (on a daily average basis).

Suppliers have seen a slowdown in whey sales to China in recent months. In the June-August period, shipments were down 7 percent from last year. Meanwhile, whey exports to Mexico were up 60 percent (+2,629 tons) in August.

In the June-August period, U.S. suppliers exported 8,219 tons of **butterfat**, up 158 percent from last year. Canada has been the major customer, taking 4,187 tons in three months, more than triple year-earlier purchases.

U.S. Exports

	LATEST MONTH				AUGUST (VOLUME, MT)					YEAR-TO-DATE				JANUARY - AUGUST (VOLUME, MT)				
	2015	2016	2017	% CHG	2015	2016	2017	% CHG		2015	2016	2017	% CHG	2015	2016	2017	% CHG	
NDM/SMP*	42,779	53,612	49,046	-9	372,185	360,219	400,454	+11	NDM/SMP*	372,185	360,219	400,454	+11					
WMP*	2,894	1,868	2,741	+47	WMP*	26,090	17,826	15,327	-14	WMP*	26,090	17,826	15,327	-14				
Cheese	22,687	22,453	30,370	+35	Cheese	223,653	186,383	230,613	+24	Cheese	223,653	186,383	230,613	+24				
Butterfat	2,314	957	2,652	+177	Butterfat	17,011	14,910	16,690	+12	Butterfat	17,011	14,910	16,690	+12				
Total Whey	32,975	47,959	47,992	+0	Total Whey	307,827	322,504	350,302	+9	Total Whey	307,827	322,504	350,302	+9				
-Dry whey	13,963	20,141	18,218	-10	-Dry whey	131,167	120,758	135,265	+12	-Dry whey	131,167	120,758	135,265	+12				
-WPC	8,827	13,122	14,337	+9	-WPC	63,805	92,849	93,641	+1	-WPC	63,805	92,849	93,641	+1				
-Modified whey	7,765	11,743	13,021	+11	-Modified whey	85,858	86,834	98,205	+13	-Modified whey	85,858	86,834	98,205	+13				
-WPI	2,420	2,953	2,415	-18	-WPI	26,997	22,064	23,189	+5	-WPI	26,997	22,064	23,189	+5				
Lactose	29,440	33,059	29,906	-10	Lactose	239,213	237,816	232,496	-2	Lactose	239,213	237,816	232,496	-2				
MPC	2,463	1,379	1,573	+14	MPC	21,076	13,899	16,107	+16	MPC	21,076	13,899	16,107	+16				
Aggregate volume**	135,552	161,287	164,279	+2	Aggregate volume**	1,207,054	1,153,558	1,261,989	+9	Aggregate volume**	1,207,054	1,153,558	1,261,989	+9				
milk/cream (000 liters)	8,950	10,598	10,151	-4	milk/cream (000 liters)	72,664	68,730	71,245	+4	milk/cream (000 liters)	72,664	68,730	71,245	+4				
Total Value (millions)**	\$ 401.9	\$ 401.0	\$ 468.5	+17	Total Value (millions)**	\$ 3,754.6	\$ 3,034.5	\$ 3,655.2	+20	Total Value (millions)**	\$ 3,754.6	\$ 3,034.5	\$ 3,655.2	+20				

* USDA data for NDM/SMP and WMP for June 2016-March 2017 adjusted to reflect shipments to Mexico misclassified as WMP.

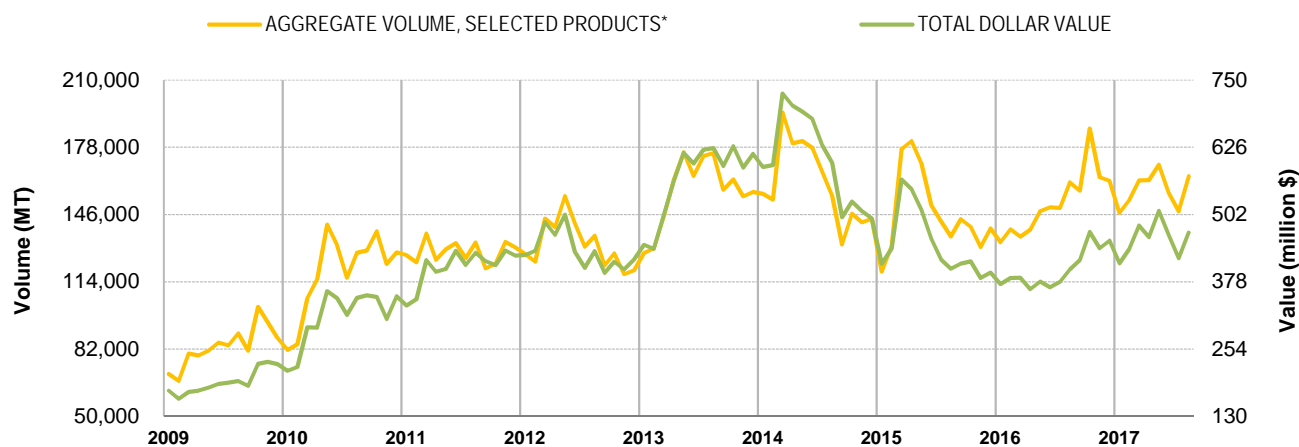
** Aggregate volume includes the products listed above, except fluid milk. Total value includes other products in addition to the ones listed here.

Source: USDA, USDEC.

U.S. Exports

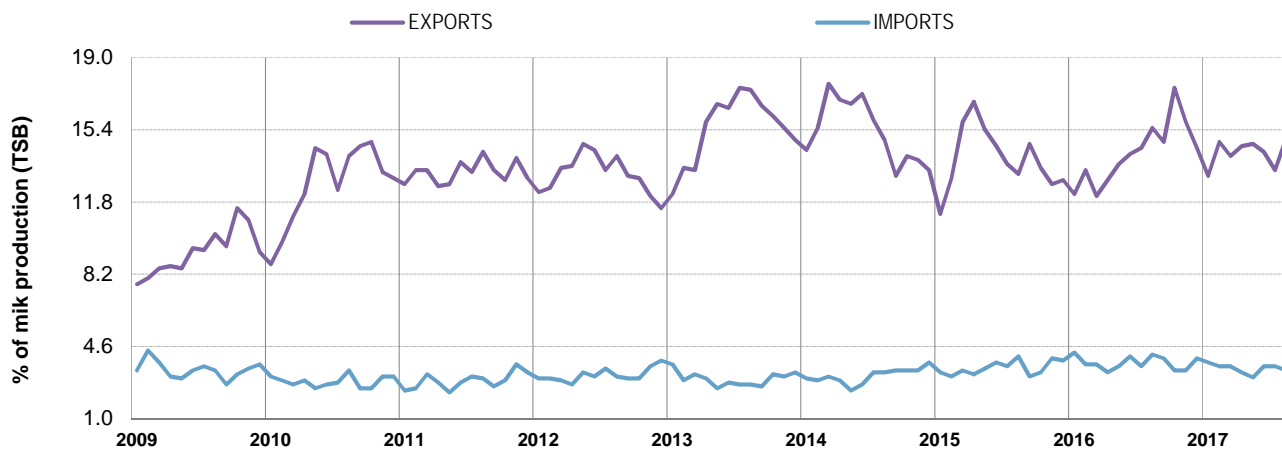
U.S. EXPORTS

VOLUME AND VALUE



* Volume includes SMP, WMP, MPC, whey, cheese, butterfat, lactose

U.S. EXPORTS AND IMPORTS AS A PERCENT OF MILK PRODUCTION



U.S. DAIRY EXPORTS, TOP 10 MARKETS

(million \$)	August 17	vs. yr ago
Mexico	\$ 112.3	+4%
Canada	56.2	+20%
Southeast Asia	54.2	+0%
China	51.2	+52%
Japan	28.3	+89%
Oceania	27.7	+65%
South America	22.8	-2%
Caribbean	21.4	+26%
So. Korea	19.0	+7%
Middle East/North Africa	17.6	+17%

U.S. EXPORTS AS % OF PRODUCTION

	August	yr ago	Jan-Aug 17	yr ago
NDM/SMP	59%	70%	54%	50%
Total cheese	6.5%	4.9%	6.2%	5.1%
Butterfat	4.5%	1.7%	2.9%	2.6%
Dry sweet whey	42%	58%	43%	41%
Lactose	67%	79%	67%	71%
Total milk solids	15.0%	15.5%	14.2%	13.6%

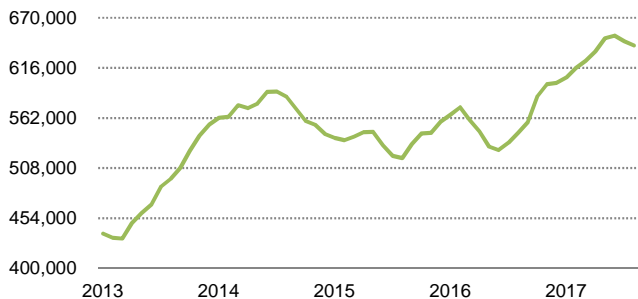
ACCESS U.S. EXPORT DATA ONLINE

Visit usdec.org/research-and-data/market-data/us-export-data

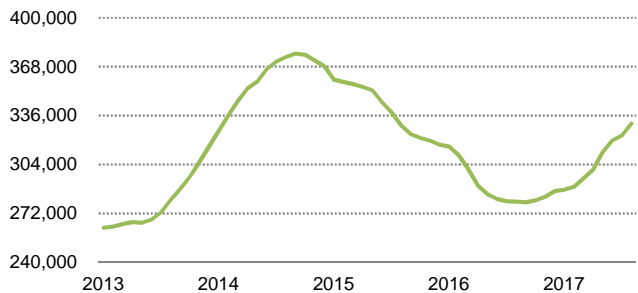
Source: USDA, USDEC, National Milk Producers Federation.

U.S. Exports: Rolling 12-Month Volume

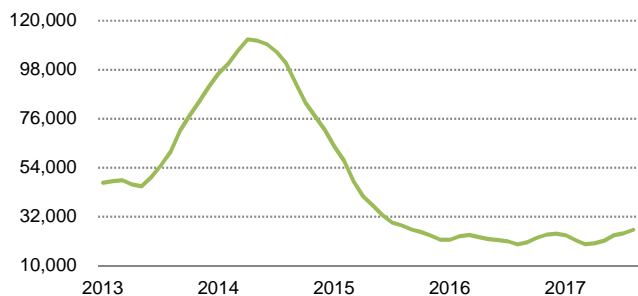
U.S. NDM/SMP EXPORTS (MT)



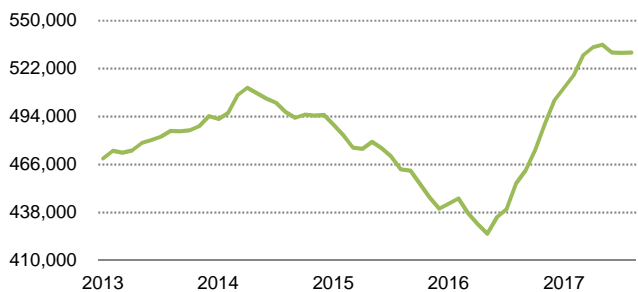
U.S. CHEESE EXPORTS (MT)



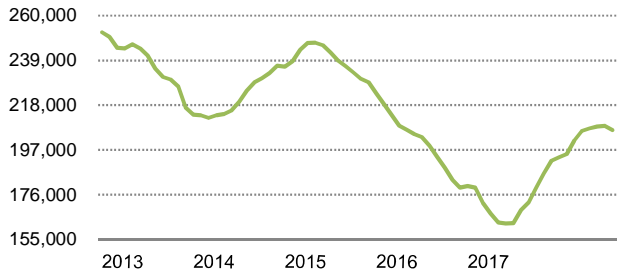
U.S. BUTTERFAT EXPORTS (MT)



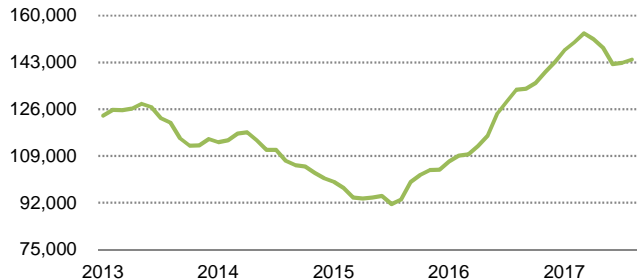
U.S. TOTAL WHEY* EXPORTS (MT)



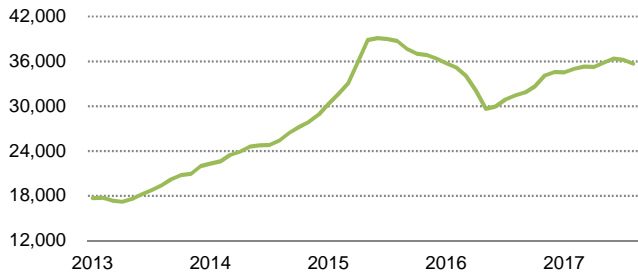
U.S. DRY WHEY EXPORTS (MT)



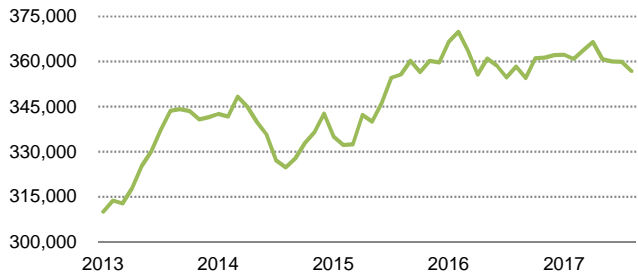
U.S. WPC EXPORTS (MT)



U.S. WPI EXPORTS (MT)



U.S. LACTOSE EXPORTS (MT)



* Total whey includes dry whey, WPC, modified whey products and WPI.

Source: USDA, USDEC.

U.S. Market Situation

Cheese steady but butter and ingredients weaker

Cheese and butter demand is seasonally strong, and improved exports are helping balance current production. But while the cheese market is steady, the butter and dry ingredients markets are softer. Weaker global markets are an influence.

Cheddar blocks have traded mostly within a range of \$3750/ton to \$3880/ton at the CME over the last month. On Oct. 27, the benchmark block price settled at \$3847/ton.

Cheese production is heavy, resulting in record-high inventory build-up this fall. In the first eight months of the year, total cheese production was up 3.0% (all figures adjusted for leap day), while domestic use was up just 0.3%. At the end of September, U.S. commercial cheese inventories were 592,200 tons, nearly 32,000 tons greater than a year ago.

The butter market has trended lower since peaking over \$6000/ton in early August. The CME price fell to a 5-month low this week, settling at \$5076/ton on Oct. 27. Production is increasing seasonally. Output was up more than 3% in July-August as manufacturers responded to higher prices this summer. Domestic use is up almost 4% this year, so inventories have moved slightly below year-ago levels.

Dry ingredient markets remain under pressure.

The NDM/SMP market has moved lower in recent months, in line with the global trend. Prices have fallen to \$1650-

\$1775/ton. Production was up a whopping 11% in August, and inventories swelled to a record 139,600 tons.

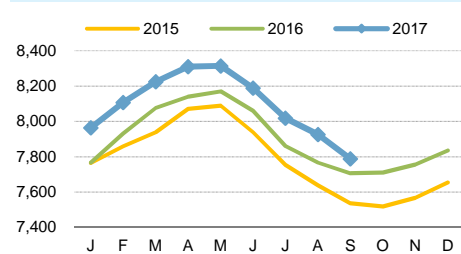
The whey market has plunged over the last six months, with dry whey prices falling to \$725-\$775/ton. Dry whey production was up 19% in the June-August period, sending inventories to a record-high 45,200 tons, 70% more than a year ago. WPC-34 prices have continued to fall as well, dropping \$450 since February to about \$1750/ton.

Lactose prices have fallen to a 16-month low of about \$575/ton, down \$325 since mid-June. Production was up 4% in the first eight months of the year and inventories are very heavy.

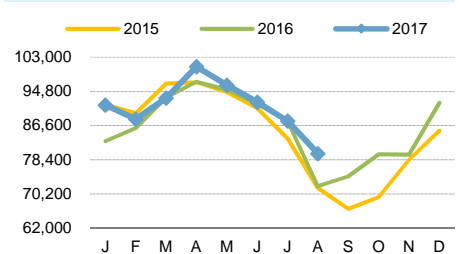
Fluid milk consumption was down 1.8% in the first eight months of the year, the eighth straight year of decline, making more milk available for manufacturing.

Milk production growth slowed in September due to weather issues in various parts of the country, especially extreme heat on the west coast. Production for the month was up just 1.1% from a year ago, bringing the year-to-date increase to 1.9%. Cow numbers totaled 9.40 million in September, 69,000 head more than last year. ♦

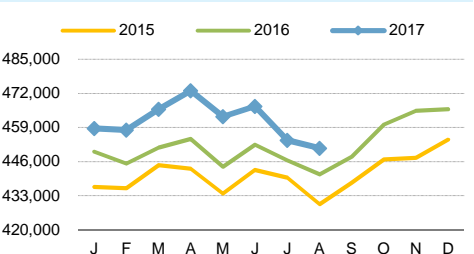
U.S. MILK PRODUCTION (000 MT; 30-DAY MOS.)



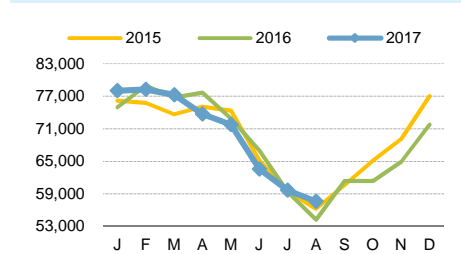
U.S. NDM/SMP PROD. (MT; 30-DAY MOS.)



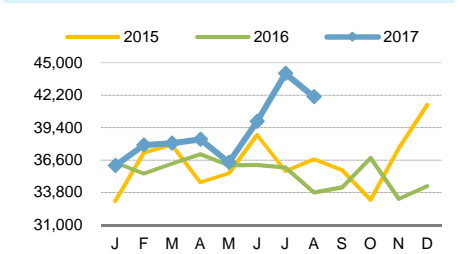
U.S. CHEESE PRODUCTION (MT; 30-DAY MOS.)



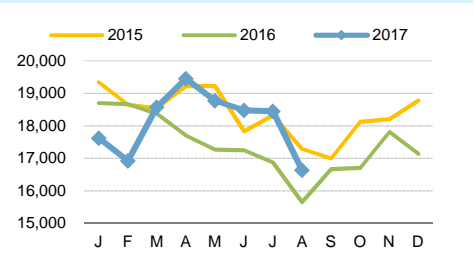
U.S. BUTTER PRODUCTION (MT; 30-DAY MOS.)



U.S. DRY WHEY PROD. (MT; 30-DAY MOS.)



U.S. WPC PRODUCTION (MT; 30-DAY MOS.)



Source: USDA, USDEC.