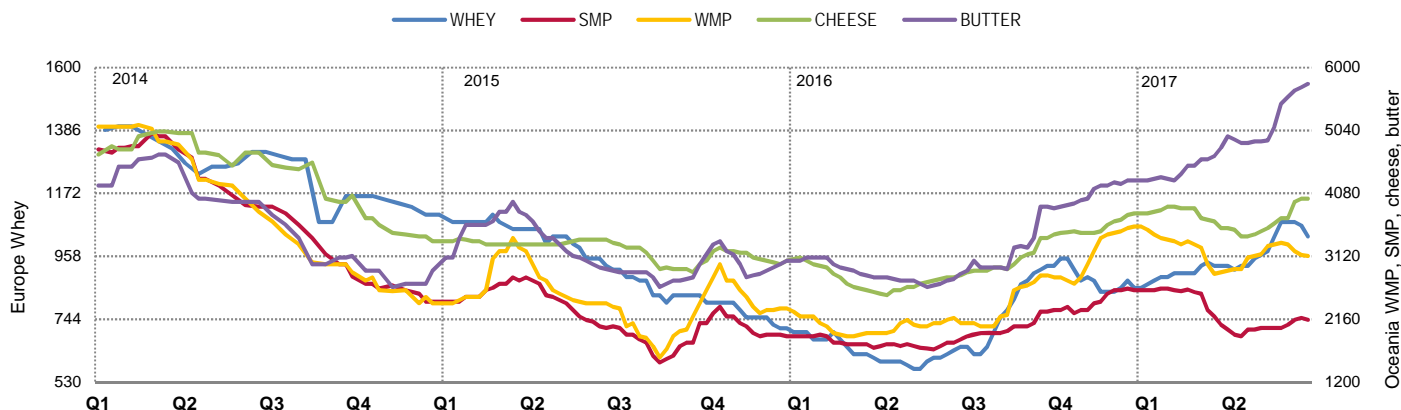


2014-17 PRICE TREND - SMP, WMP, CHEESE, BUTTER, WHEY*

(\$/MT)



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

Source: USDEC and commercial sources.

More milk coming, but fat rally persists

By Alan Levitt and Marc Beck

After nearly three years of oversupply and limited upside price risk, buyers have been lulled into a sense of supply security. Thus traders were caught by surprise by a global shortage of butterfat this spring, sending hand-to-mouth buyers into a panic to cover current and second-half needs.

Low SMP prices have incented processors to divert milk away from butter/powder. In Europe, where milk production has lagged year-ago levels and butterfat content is off as well, butter production in the first four months of the year was down 5%. Australian production was down 19% in the first 10 months of the season and U.S. butter production in the year ending April 2017 was off 2%. New Zealand butterfat exports August 2016-April 2017 were down 7% vs. prior year, suggesting lower butter production there too. We estimate production among the four suppliers is down 15,000-20,000 tons per month – while global butterfat demand, particularly from the bakery sector, remains very good and inventories outside of the United States are non-existent.

Global butter prices have increased \$900-\$1300/ton in the last six weeks, rising to record highs. In Europe, butter topped \$6100/ton for the first time. Where can we go from here?

The “cure” for high prices is high prices, but in the U.S./EU summer months there’s little scope to increase butter production. Further, history tells us not to expect a break for a while. This is the fourth time EU butter has traded above \$5500/ton. In the previous three run-ups, the average price six months after crossing the \$5500 threshold was still nearly 90% of the peak price.

Intuitively, one would expect to see price resistance from end users. But while wholesale butterfat prices have doubled in the last year, retailers and ingredient users have been reluctant to pass along the full, higher cost to consumers. This lag stalls a demand response in the marketplace.

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

	EUROPE	OCEANIA
SMP	2213 (+175)	2158 (+123)
WMP	3354 (+212)	3154 (-116)
Cheddar	3758 (+153)	3983 (+368)
Butter	6258 (+893)	5700 (+528)
Dry whey	1054 (+32)	
WPC-34%	2250 (+125)	
Lactose	1150 (NC)	

Source: USDEC.

Continued on p. 2

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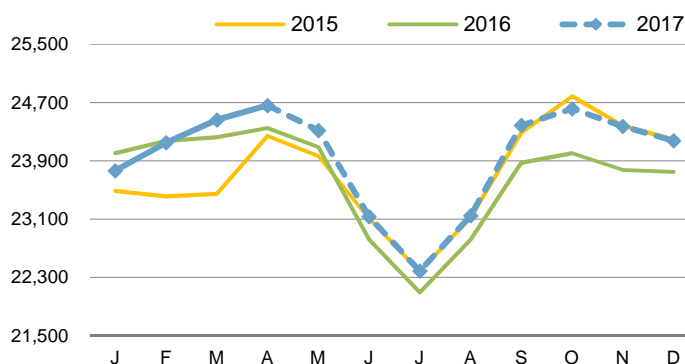
Still, record butter prices are rationing the existing supply among the buyers who can afford to pay the most. In the case of Europe and the United States, that's generally the domestic market, leaving less available for export. To wit: butterfat shipments to the Middle East/North Africa region were down 42% in the first four months of the year and overall global butterfat trade from the major suppliers was down 17%.

The butter wake-up call has brought buyers of other commodities off the sidelines as well. With scarce supply in the off season, Oceania cheddar prices saw bids that approached three-year highs. European whey prices are the highest in more than two years and European WMP hasn't topped these levels since August 2014. Even European SMP, intervention stocks notwithstanding, is up more than 20% in the last two months.

Milk powder orders have been lackluster over the last year. In the 12 months to April 2017, SMP trade was down about 1% and WMP trade was down about 3% from the prior year, including double-digit losses in April. WMP sales to Southeast Asia were off 8% over the last year, and exports to Venezuela dwindled to almost nothing after averaging 12,500 tons per month from 2009 to 2014. In contrast, Algeria went on a buying spree to compensate for a shortfall in domestic milk production. WMP and SMP imports were up 71% in the six months to April 2017, an increase of nearly 100,000 tons over the prior year, though purchases have recently slowed.

Global cheese demand remains good. In the 12 months to April 2017, exports from the major suppliers were up 6%, with a boost in buying from South Korea (+11% in the year to May 2017), China (+25% year to April), Southeast Asia (+12% year to March) and South America (+42% year to March).

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. May-December 2017 is USDEC forecast.

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

Demand for whey products is exceptional, running 10% higher in the year to April 2017. China imports in the year to April were up 11%, while Southeast Asia imports were up 10%.

But, the second half looks a little different.

Milk production from the five major suppliers was down 1.6% in the nine-month stretch from June 2016 to February 2017 – an unprecedented period of contraction going back 20 years. Note that production posted a negative number in only two years over the previous two decades. It speaks to how severely the world was oversupplied that production pulled back so dramatically and yet the market is still looking for firm footing.

Now production is back in expansion mode.

In March and April, production from the top five was up 1.1%

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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.

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

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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

year-over-year, on top of 1.9% growth last year. What’s more, farmer confidence is relatively high, weather has been decent in the world’s supply regions and input costs promise to remain low – setting up a scenario of strong supply growth in the second half of the year.

Initial payout forecasts for the 2017/18 season in New Zealand are NZ\$6.50-6.75/kg MS, 60% better than the 2014/15 and 2015/16 payouts. Pastures are in good shape and imports of supplemental feed (PKE, soybean meal) are up significantly this year. After two years of declines, we look for production to increase 2-3% in the second half of 2017.

Payouts are better for beleaguered Australian dairy farmers as well and the El Niño threat has been rescinded. After heavy culling pushed production down 9% in the second half of 2016, we expect a 2-3% gain in the second half of 2017.

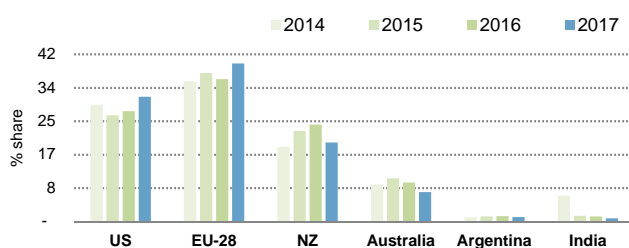
Argentina, Uruguay and Brazil have been non-factors in the world market over the last year; the exit of major customer Venezuela was offset by significantly lower milk production by the exporters in 2016 (-7% in H2). This year, while Venezuela is still out of the market, production is shaping up to be better. Here, too, we look for a 2-3% production increase by the major suppliers over the last half of the year, potentially leaving excess milk in the region.

In Europe, higher commodity prices have brought higher farmgate milk prices this summer. Production growth among the exporting countries is mixed: higher in Ireland and Poland, flat in the Netherlands and Denmark, and down in France and Germany. Still, after the deep contraction in the second half of 2016, we look for EU milk production to be up 1.5% to 2% in H2-2017. The major caveat on this projection is whether the heat wave now blanketing Europe has a more lasting impact on the farm.

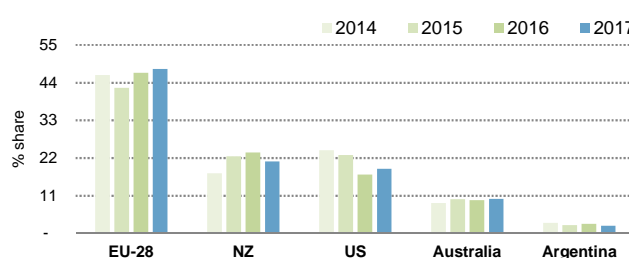
In the United States, where cow numbers have increased almost 200,000 head since November 2013, production is forecast to grow 1.5% in the July-December period. Meanwhile, domestic consumption is significantly lower this year than in recent years, leaving a greater exportable surplus.

Put them together, and milk production from the major suppliers could increase close to 2% in the second half of the year. We estimate this 2% growth over six months would generate close to 200,000 tons of product for the export market. World import demand would have to increase 5 or 6 percent, year-over-year, to absorb that volume – an ambitious task. This

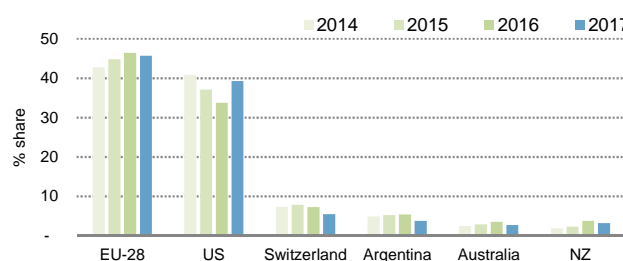
SMP/NDM EXPORTS - SHARE OF SELECTED 6 (JAN-APR)



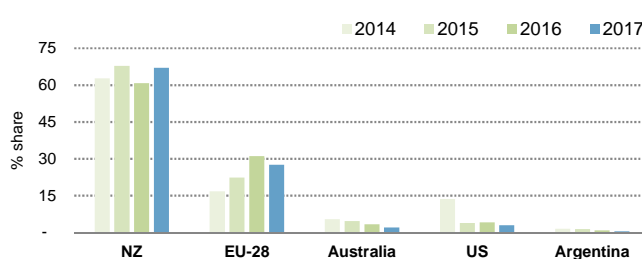
CHEESE EXPORTS - SHARE OF SELECTED 5 (JAN-APR)



WHEY PRODUCTS EXPORTS - SHARE OF SELECTED 6 (JAN-APR)



BUTTERFAT EXPORTS - SHARE OF SELECTED 5 (JAN-APR)



doesn’t even take into consideration the 352,000 tons of SMP still sitting in EU intervention stores, which could limit further SMP price moves despite its increasing age, or the growing export supply available out of Canada and Turkey.

Continued on p. 4

From p. 3

Demand growth is fragile.

Import growth, as always, depends on China, where purchases have been just moderate in 2017.

Milk production in China was estimated to be down 2-3% in the first half of the year and powder inventories are in line. But in the first four months of the year, China imports (milk equivalent) were up just 4% and milk powder imports were down fractionally. We still believe China dairy import growth could reach 10% this year, but it'll take 14% growth in the last eight months of the year to achieve that mark.

Other importers have picked up some of the slack.

Mexico (+11% year ending March 2017), Algeria (+18% year ending April), the Philippines (+31% year ending March), Indonesia (+15% year ending February) and South Korea (+13% year ending May) have increased purchases over the last year. Facing a shortage of local milk, Japan will expand SMP import tenders by 21,000 tons over the next nine months. Even Russia's imports outside of Belarus have improved, up 49% in the year to April. However, this has been offset by reduced trade with Venezuela and parts of the Middle East (such as Saudi Arabia and United Arab Emirates), Southeast Asia (Malaysia, Singapore and Thailand), and Sub-Saharan Africa.

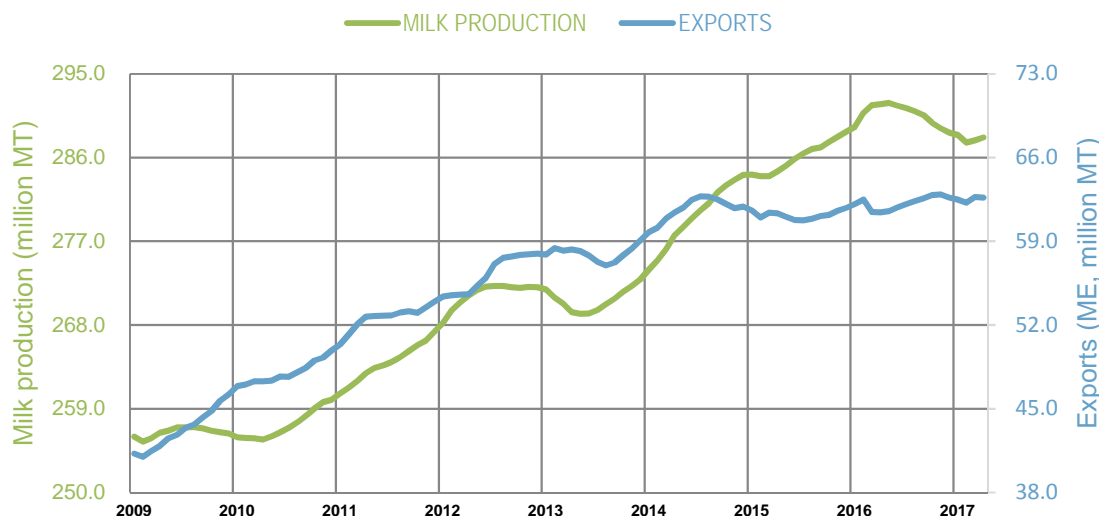
With little prospect for stronger oil prices anytime soon, buying appetite in the Middle East could be subdued.

The indicators suggest a supply recovery on top of fragile demand growth, combining to pressure the market in the second half of the year. We expect the market to pull back by August or September as the New Zealand flush starts to come on. The weaker U.S. dollar since December has made imports more affordable, but higher commodity values make dairy relatively expensive in the price-sensitive regions of the world.

With record butterfat prices and softening WMP prices, returns are now more favorable to produce butter/powder. Likewise in the United States the economics suggest more milk should move to the butter churn vs. the cheese vat. We expect more butter production in Europe, the United States and Oceania in H2. That may alleviate some of the butter shortage, but it also could create problems in disposing of the extra skim that's produced along the way.

In the meantime, U.S. pricing is favorable relative to benchmark prices from Oceania and Europe, setting up U.S. suppliers to expand sales in the months ahead. ♦

MILK PRODUCTION VS. EXPORTS (ME) FROM TOP 5 SUPPLIERS ROLLING 12 MONTHS



Exports from the Top 5 suppliers (shown here as a indicator of global trade) have stagnated since mid-2014. Milk production has contracted since mid-2016, but has begun to expand again.

Exports include SMP, WMP, cheese, butterfat and whey. Source: USDEC, Global Trade Atlas, USDA and other government agencies.

World Dairy Exports

SMP EXPORTS

	LATEST MONTH		APRIL (VOLUME, MT)			YEAR-TO-DATE		JANUARY-APRIL (VOLUME, MT)		
	2015	2016	2017	% CHG		2015	2016	2017	% CHG	
EU-28	65,213	56,155	73,790	+31	EU-28	253,463	228,037	258,383	+13	
U.S. *	55,089	41,180	48,389	+18	U.S. *	181,551	176,556	204,264	+16	
NZ	40,694	29,311	26,568	-9	NZ	154,709	155,066	129,268	-17	
Australia	18,006	16,342	9,477	-42	Australia	73,426	62,294	48,183	-23	
Argentina	4,109	2,309	638	-72	Argentina	9,427	7,804	4,803	-38	
TOTAL OF 5	183,111	145,297	158,862	+9	TOTAL OF 5	672,576	629,757	644,901	+2	

WMP EXPORTS

	LATEST MONTH		APRIL (VOLUME, MT)			YEAR-TO-DATE		JANUARY-APRIL (VOLUME, MT)		
	2015	2016	2017	% CHG		2015	2016	2017	% CHG	
NZ	159,052	94,063	108,051	+15	NZ	511,446	468,189	445,144	-5	
EU-28	36,816	30,951	39,960	+29	EU-28	134,479	129,999	137,376	+6	
Argentina	12,146	10,838	6,387	-41	Argentina	43,637	39,410	21,082	-47	
Australia	5,532	6,015	4,508	-25	Australia	22,356	21,319	18,987	-11	
U.S. *	3,852	1,886	2,898	+54	U.S. *	15,803	8,493	8,158	-4	
TOTAL OF 5	217,398	143,753	161,804	+13	TOTAL OF 5	727,721	667,410	630,747	-5	

CHEESE EXPORTS

	LATEST MONTH		APRIL (VOLUME, MT)			YEAR-TO-DATE		JANUARY-APRIL (VOLUME, MT)		
	2015	2016	2017	% CHG		2015	2016	2017	% CHG	
EU-28	59,368	68,853	76,544	+11	EU-28	222,732	254,047	272,842	+7	
NZ	35,380	31,594	29,153	-8	NZ	117,795	127,840	119,098	-7	
U.S.	34,657	25,488	31,146	+22	U.S.	119,768	92,999	107,039	+15	
Australia	14,647	13,300	15,525	+17	Australia	52,079	52,631	56,942	+8	
Argentina	3,161	4,016	3,088	-23	Argentina	12,389	14,976	12,415	-17	
TOTAL OF 5	147,213	143,251	155,456	+9	TOTAL OF 5	524,763	542,493	568,336	+5	

BUTTERFAT EXPORTS

	LATEST MONTH		APRIL (VOLUME, MT)			YEAR-TO-DATE		JANUARY-APRIL (VOLUME, MT)		
	2015	2016	2017	% CHG		2015	2016	2017	% CHG	
NZ	48,617	37,760	35,253	-7	NZ	173,177	165,066	150,843	-9	
EU-28	15,594	20,161	19,504	-3	EU-28	56,962	84,467	61,967	-27	
U.S.	2,565	3,217	1,329	-59	U.S.	9,895	11,069	6,681	-40	
Australia	2,955	1,829	986	-46	Australia	11,766	9,160	4,706	-49	
Argentina	1,686	393	348	-11	Argentina	3,609	2,221	1,104	-50	
TOTAL OF 5	71,417	63,360	57,420	-9	TOTAL OF 5	255,409	271,983	225,301	-17	

* USDA data for U.S. 2016 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		APRIL (VOLUME, MT)	
	2015	2016	2017	% CHG
EU-28	48,322	48,395	55,476	+15
U.S.	41,358	32,747	44,426	+36
Switzerland	8,046	7,890	6,774	-14
Argentina	4,557	5,724	3,258	-43
NZ	1,747	3,217	3,847	+20
Australia	2,957	3,216	3,047	-5
TOTAL OF 6	106,987	101,189	116,828	+15

	YEAR-TO-DATE			
	JANUARY-APRIL (VOLUME, MT)			
	2015	2016	2017	% CHG
EU-28	181,693	193,494	200,698	+4
U.S.	150,366	140,657	172,248	+22
Switzerland	31,743	30,203	23,862	-21
Argentina	21,246	22,331	16,326	-27
NZ	9,165	15,562	14,111	-9
Australia	11,577	14,482	11,928	-18
TOTAL OF 6	405,790	416,729	439,173	+5

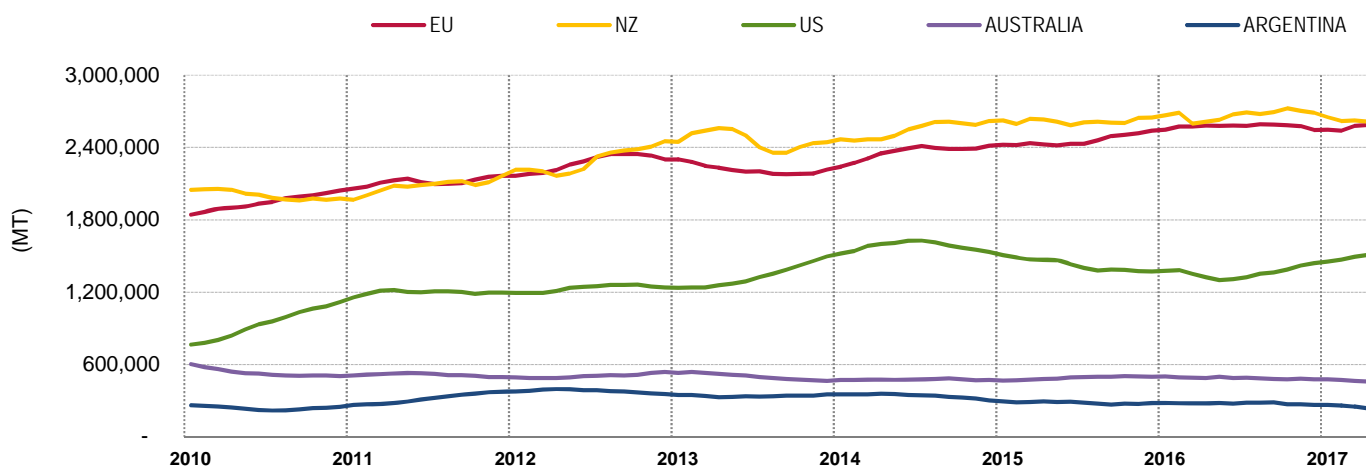
LACTOSE EXPORTS

	LATEST MONTH		APRIL (VOLUME, MT)	
	2015	2016	2017	% CHG
U.S.	35,369	28,855	31,930	+11
EU-28	17,584	14,170	21,287	+50
NZ	1,609	2,106	2,639	+25
TOTAL OF 3	54,562	45,131	55,856	+24

	YEAR-TO-DATE			
	JANUARY-APRIL (VOLUME, MT)			
	2015	2016	2017	% CHG
U.S.	117,476	113,110	117,915	+4
EU-28	58,860	53,312	73,915	+39
NZ	5,114	6,914	8,074	+17
TOTAL OF 3	181,450	173,336	199,904	+15

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	Mar 17	20,775	27,591	+33
China	Apr 17	13,316	17,857	+34
Philippines	Mar 17	20,179	14,139	-30
Indonesia	Feb 17	13,872	16,429	+18
Algeria	Apr 17	7,027	10,797	+54
Malaysia	Mar 17	10,085	13,460	+33

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
Mexico	Mar	61,278	74,743	+22
China	Apr	85,694	92,200	+8
Philippines	Mar	47,085	42,288	-10
Indonesia	Feb	21,296	30,671	+44
Algeria	Apr	34,639	52,493	+52
Malaysia	Mar	35,343	33,966	-4

WMP IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Apr 17	29,902	30,816	+3
Algeria	Apr 17	13,172	24,513	+86
Sri Lanka	Apr 17	5,333	6,384	+20
Singapore	Apr 17	5,626	5,389	-4
Hong Kong	Apr 17	7,140	6,275	-12
Venezuela	Dec 16	-	5,942	NA

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Apr	234,056	226,922	-3
Algeria	Apr	64,785	111,442	+72
Sri Lanka	Apr	24,420	30,177	+24
Singapore	Apr	20,946	24,268	+16
Hong Kong	Apr	28,651	23,420	-18
Venezuela	Dec	57,345	57,745	+1

CHEESE IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
Japan	Apr 17	19,500	22,316	+14
U.S.	Apr 17	14,140	15,185	+7
So. Korea	May 17	9,745	11,331	+16
Mexico	Mar 17	12,498	13,532	+8
Russia	Apr 17	2,127	3,188	+50

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
Japan	Apr	86,133	86,939	+1
U.S.	Apr	68,267	57,517	-16
So. Korea	May	44,940	55,201	+23
Mexico	Mar	33,390	31,580	-5
Russia	Apr	9,730	9,005	-7

BUTTERFAT IMPORTS

(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Apr 17	4,853	6,494	+34
Mexico	Mar 17	4,232	3,928	-7
Russia	Apr 17	953	3,166	+232
Iran	Apr 17	1,376	2,647	+92
Morocco	Mar 17	3,731	1,462	-61

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Apr	33,137	30,505	-8
Mexico	Mar	15,733	15,475	-2
Russia	Apr	6,393	14,025	+119
Iran	Apr	9,735	10,029	+3
Morocco	Mar	7,853	5,115	-35

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	Apr 17	34,813	42,952	+23
Indonesia	Feb 17	9,812	8,772	-11
Japan	Apr 17	1,357	1,878	+38
Thailand	Apr 17	4,256	4,756	+12
Malaysia	Mar 17	6,049	5,563	-8
Mexico	Mar 17	3,165	4,513	+43

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Apr	150,518	171,665	+14
Indonesia	Feb	15,908	16,142	+1
Japan	Apr	21,360	23,440	+10
Thailand	Apr	19,864	19,608	-1
Malaysia	Mar	18,959	15,381	-19
Mexico	Mar	10,346	11,648	+13

LACTOSE IMPORTS

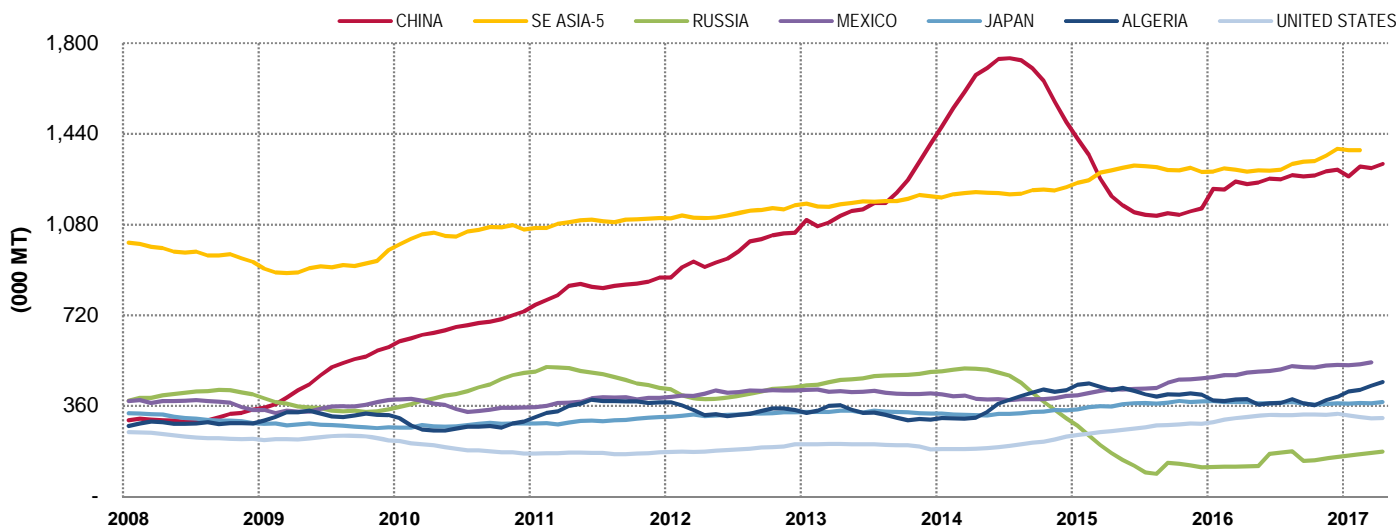
(VOLUME, MT)

	LATEST MONTH	Prev Yr	Latest Mo	% CHG
China	Apr 17	7,457	8,786	+18
NZ	Apr 17	5,385	6,547	+22
Japan	Apr 17	4,978	7,627	+53

	YEAR-TO-DATE	Prev Yr	Latest Yr	% CHG
China	Apr	27,754	32,565	+17
NZ	Apr	27,886	29,985	+8
Japan	Apr	22,980	26,885	+17

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.

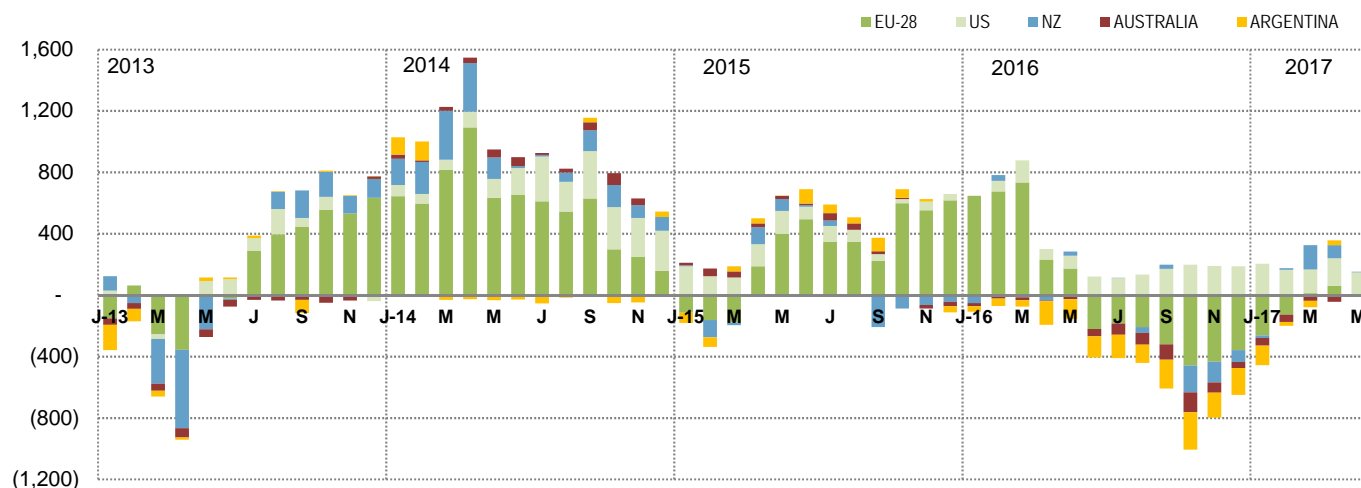
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Global Milk Production

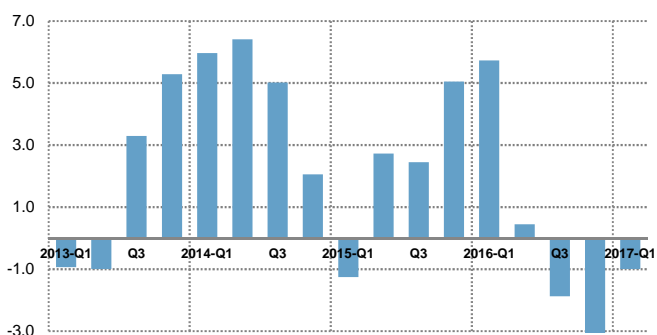
MILK PRODUCTION - CHANGE FROM PRIOR YEAR

(000 MT)

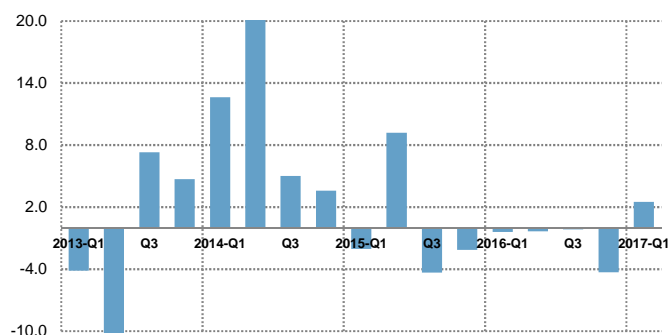


* Feb 2012 and 2016 adjusted for leap day.

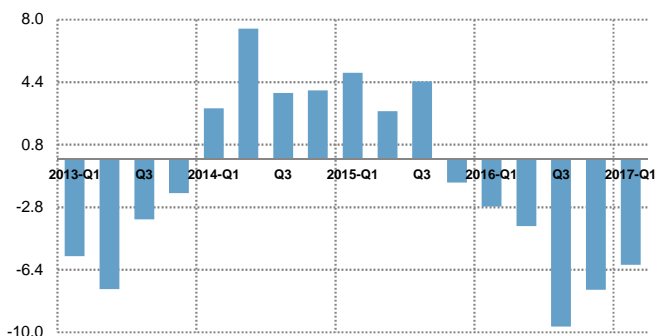
EUROPEAN UNION MILK DELIVERIES (% CHG VS. PRIOR YEAR)



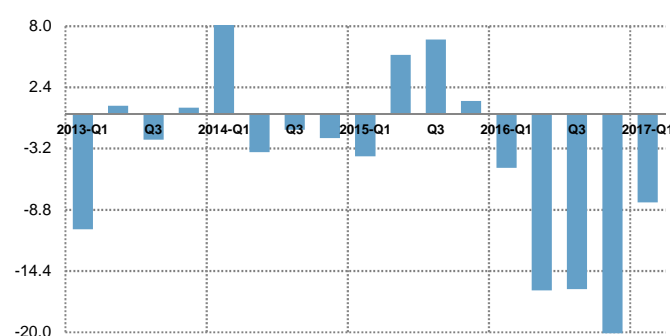
NEW ZEALAND MILK PRODUCTION (% CHG VS. PRIOR YEAR)



AUSTRALIA MILK PRODUCTION (% CHG VS. PRIOR YEAR)



ARGENTINA MILK DELIVERIES (% CHG VS. PRIOR YEAR)



ACCESS MILK PRODUCTION DATA ONLINE

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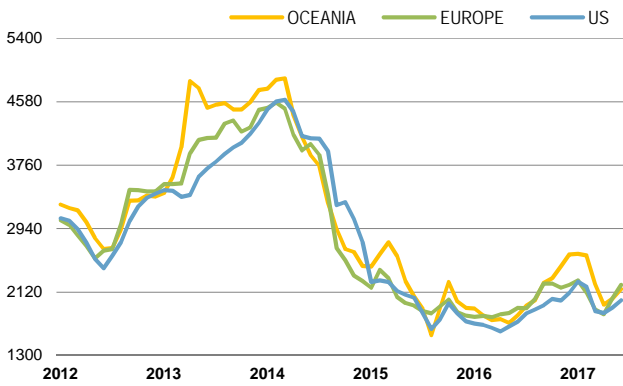
Q1-2012 and Q1-2016 adjusted for leap day.

Latest month may include USDEC estimates.

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

World Prices

SMP PRICES (\$/MT)



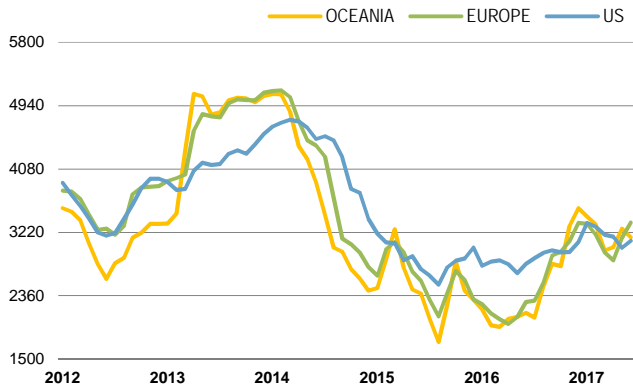
Prices vs. a year ago

	Oceania	Europe	U.S.
SMP	+19%	+16%	+16%
WMP	+48%	+47%	+11%
Cheddar	+42%	+27%	+12%
Butter	+104%	+91%	+13%
Whey		+66%	+89%

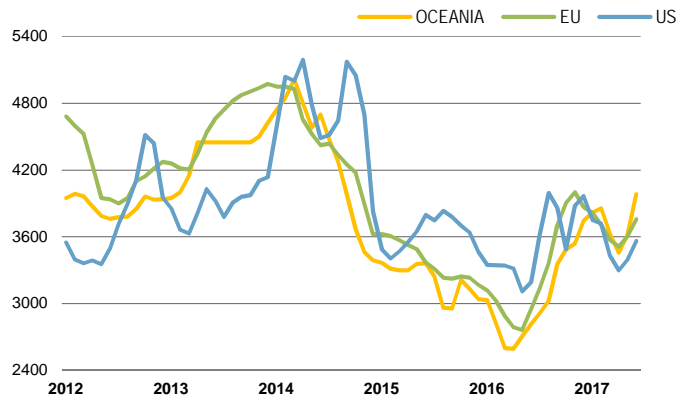
ACCESS PRICING DATA ONLINE

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

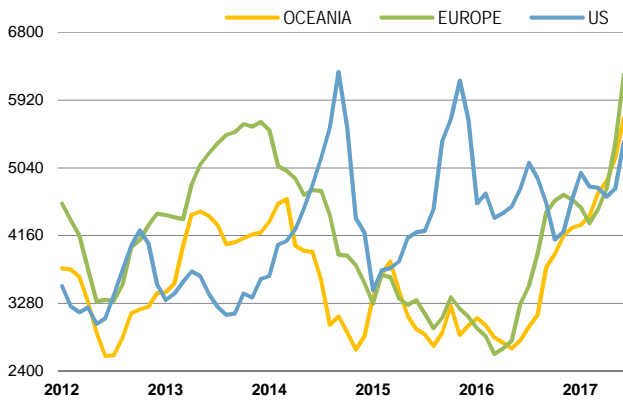
WMP PRICES (\$/MT)



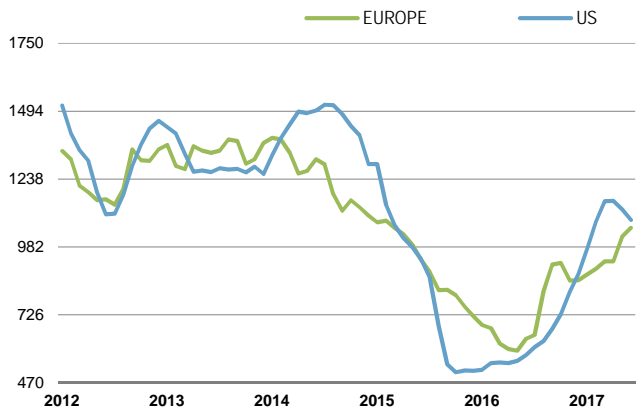
CHEDDAR PRICES (\$/MT)



BUTTER PRICES (\$/MT)



DRY WHEY PRICES (\$/MT)

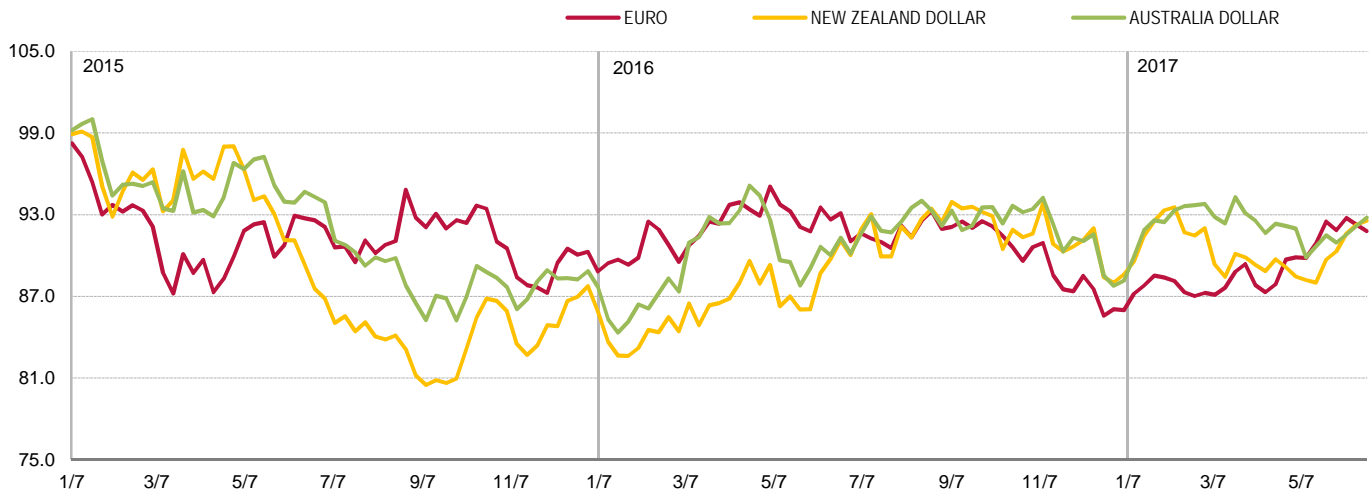


Source: USDEC and commercial sources.

Currency Exchange Rates

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

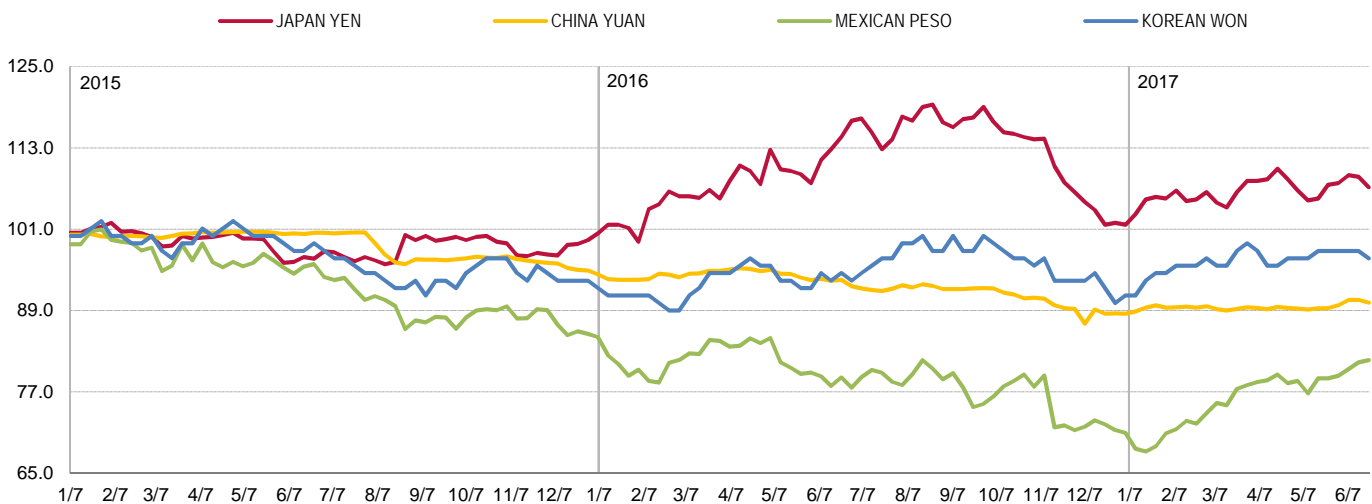
INDEXED TO JAN. 1, 2015



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

U.S. exporters continue to gain share in April

In April, U.S. dairy export volumes topped year-ago levels for the 11th straight month, with gains in most product categories and to most major destinations.

Exporters shipped 162,441 tons of milk powder, cheese, butterfat, whey and lactose, up 12 percent from last April. Overseas sales were valued at \$461 million, up 23 percent.

Sales to Mexico were valued at \$103 million in April, up 9 percent from last year. Among other top markets, sales to China (+91 percent), Southeast Asia (+23 percent) improved, while shipments to Japan were the highest in 21 months.

In the first four months of 2017, U.S. exports of NDM/SMP, whey products and lactose were running at record levels.

Exporters shipped 55,555 tons of **NDM/SMP** in April, up 9 percent year-over-year. Sales to our two largest markets – Mexico and Southeast Asia – were below year-ago levels, but this was offset by increased shipments to China (+2,447 tons) and Peru (+1,875 tons). In addition, exports to Japan (1,431 tons) were a five-year high.

Cheese exports in April reached 26,876 tons, up 27 percent from last April's depressed volume. Shippers posted increased sales to South Korea (+1,778 tons), Australia (+1,701 tons), Mexico (+1,455 tons), Japan (+610 tons) and Southeast Asia (+593 tons). At current trends, Australia will pass Japan in the upcoming months as the United States' third-largest cheese market.

Exports of **whey** products totaled 43,294 tons in April, 11 percent greater than last year. Shipments to China were 20,169 tons, up 51 percent (+6,835 tons), led by a large jump (+5,312 tons) in sales of dry whey. Meanwhile, whey exports to Southeast Asia were off 19 percent (-1,824 tons), with loss of sales of WPC to Malaysia and Vietnam. Whey exports to Canada, Mexico and South Korea also trailed year-ago levels in April.

Lactose exports were up 9 percent from last year, led by a 44 percent (+1,333 tons) increase in sales to Japan.

On a total milk solids basis, U.S. exports were equivalent to 14.6 percent of U.S. milk production in April. Imports were equivalent to 3.3 percent of production.

U.S. Exports

	LATEST MONTH				APRIL (VOLUME, MT)					YEAR-TO-DATE				JANUARY - APRIL (VOLUME, MT)			
	2015	2016	2017	% CHG	2015	2016	2017	% CHG		2015	2016	2017	% CHG	2015	2016	2017	% CHG
NDM/SMP*	57,998	51,131	55,555	+9	NDM/SMP*	181,551	176,556	204,264	+16								
WMP*	4,181	1,904	2,181	+15	WMP*	15,803	8,493	8,158	-4								
Cheese	31,873	21,171	26,876	+27	Cheese	119,768	92,999	107,039	+15								
Butterfat	2,355	1,314	1,706	+30	Butterfat	9,895	11,069	6,681	-40								
Total Whey	45,059	39,086	43,294	+11	Total Whey	150,366	140,657	172,248	+22								
-Dry whey	17,650	12,699	16,956	+34	-Dry whey	62,763	50,312	64,630	+28								
-WPC	9,690	12,759	10,575	-17	-WPC	30,248	38,452	47,087	+22								
-Modified whey	12,872	10,761	12,897	+20	-Modified whey	42,287	41,121	49,030	+19								
-WPI	4,847	2,867	2,866	-0	-WPI	15,068	10,772	11,501	+7								
Lactose	35,933	28,180	30,854	+9	Lactose	117,476	113,110	117,915	+4								
MPC	3,482	2,083	1,975	-5	MPC	13,295	7,698	8,034	+4								
Aggregate volume**	180,881	144,868	162,441	+12	Aggregate volume**	608,154	550,582	624,339	+13								
milk/cream (000 liters)	10,419	7,218	8,519	+18	milk/cream (000 liters)	34,712	29,910	34,121	+14								
Total Value (millions)**	\$ 549.1	\$ 374.5	\$ 460.7	+23	Total Value (millions)**	\$ 1,966.2	\$ 1,516.5	\$ 1,792.5	+18								

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

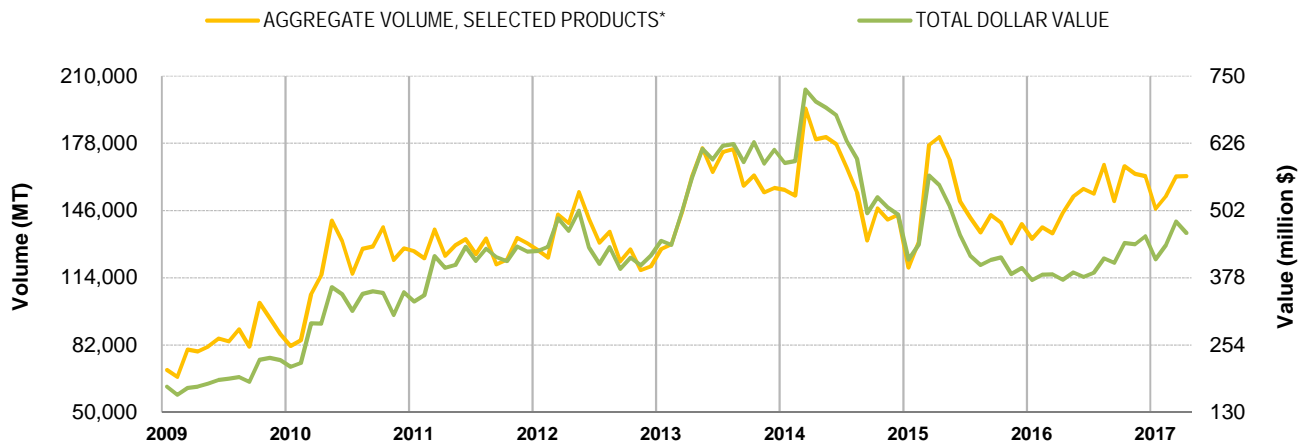
** Aggregate volume includes the products listed above, except fluid milk. Total value includes other products in addition to the ones listed here.

Source: USDA, USDEC.

U.S. Exports

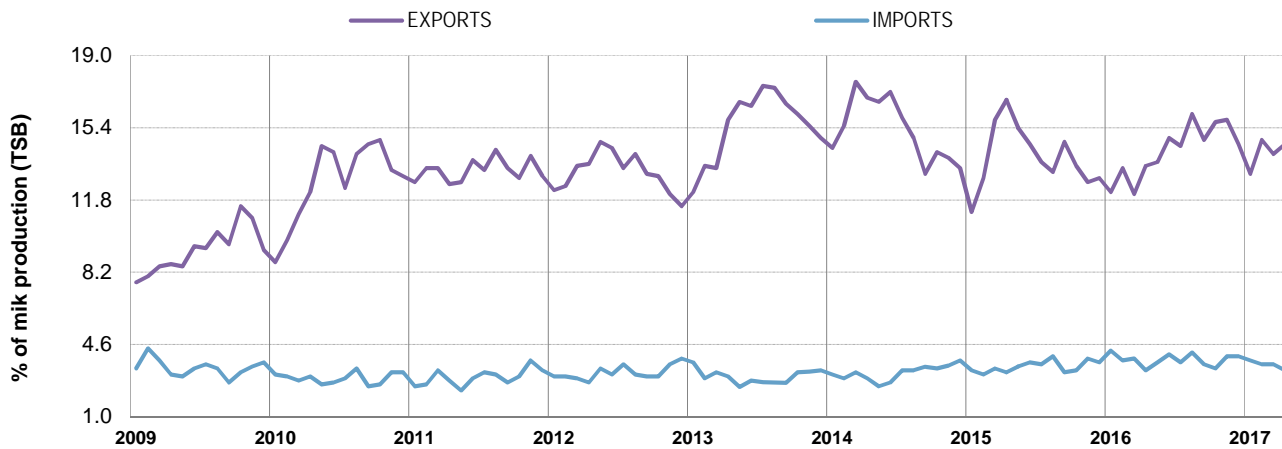
U.S. EXPORTS

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 \$)	Apr 17	vs. yr ago
Mexico	\$ 103.2	+9%
Southeast Asia	68.3	+23%
Canada	53.1	+2%
China	47.7	+91%
South America	25.7	+43%
So. Korea	25.4	+59%
Japan	23.5	+69%
Oceania	19.7	+84%
Caribbean	18.4	-3%
Middle East/North Africa	18.1	-16%

U.S. EXPORTS AS % OF PRODUCTION

	April	yr ago	Jan-Apr 17	yr ago
NDM/SMP	55%	48%	55%	49%
Total cheese	5.7%	4.7%	5.8%	5.1%
Butterfat	2.3%	1.7%	2.2%	3.6%
Dry sweet whey	44%	34%	43%	34%
Lactose	70%	68%	70%	70%
Total milk solids	14.6%	13.5%	14.1%	12.8%

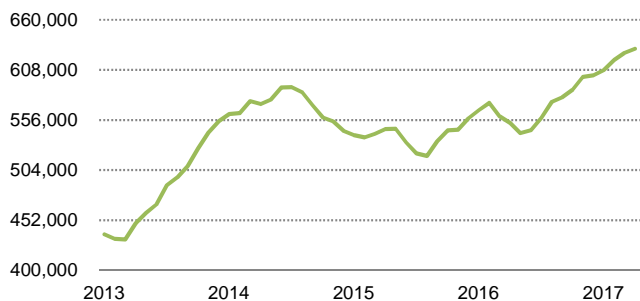
ACCESS U.S. EXPORT DATA ONLINE

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

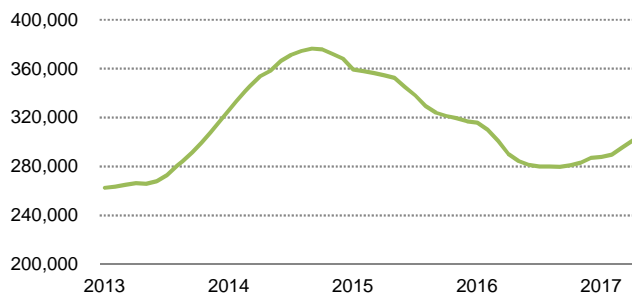
Source: USDA, USDEC, National Milk Producers Federation.

U.S. Exports: Rolling 12-Month Volume

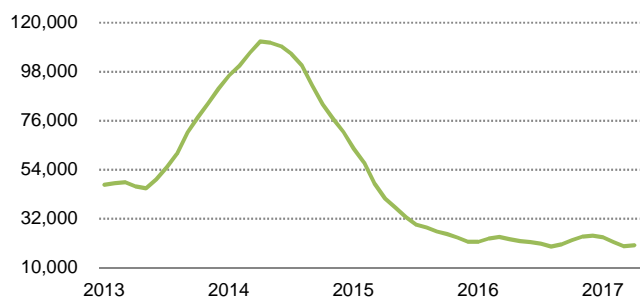
U.S. NDM/SMP EXPORTS (MT)



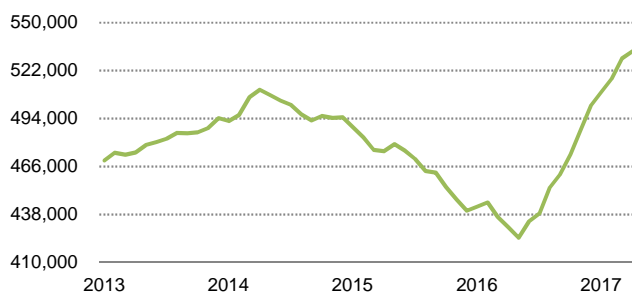
U.S. CHEESE EXPORTS (MT)



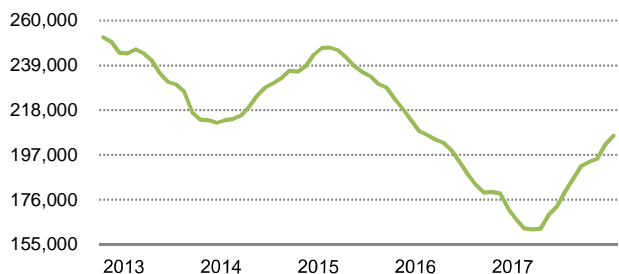
U.S. BUTTERFAT EXPORTS (MT)



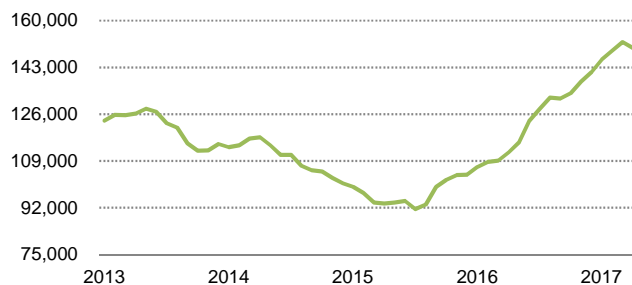
U.S. TOTAL WHEY* EXPORTS (MT)



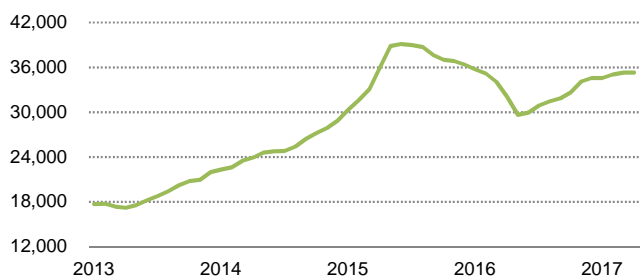
U.S. DRY WHEY EXPORTS (MT)



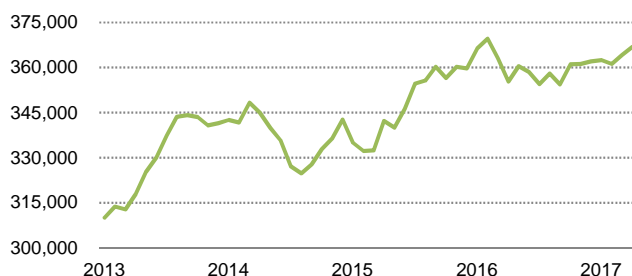
U.S. WPC EXPORTS (MT)



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

Butter remains tight while cheese market softens

As in the rest of the world, the U.S. butter market is very firm. Buyers are under-covered for the second half of the year. On June 23, butter closed at \$5710/ton on the CME, down \$254 from a week earlier, but still up \$1014 since May 13. In the first four months of the year, domestic use was up 3.7% (all percentages adjusted for leap day), while production was flat relative to a year ago. Butter inventories at the end of May were 142,000 tons, 2.5% below last year and mostly committed.

A record spring flush has kept cheese vats full. Weak fluid milk sales also have made more milk available for manufacturing. In the first five months of the year, U.S. milk production was up 2.1% from last year. Cow numbers totaled 9.39 million in May, a 71,000-head increase over the last year, and the most since the mid-1990s.

This has led to an oversupply of cheese, with stocks building and cheddar barrels falling to their lowest in more than a year, dragging blocks down in the process. On June 23, the benchmark CME cheddar block price settled at \$3395/ton, down \$452 since the end of May. Inventories remain heavy: total cheese stocks at the end of May were a record high 608,000 tons, up 10% from

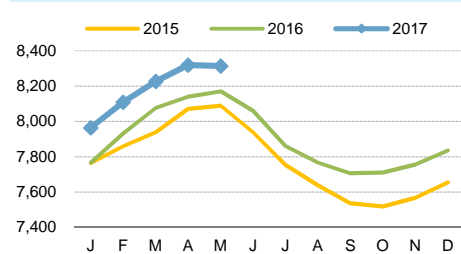
the prior year. Cheese production in the first four months of the year was up 2.9%, while domestic consumption was down 0.3%.

The NDM market pulled back slightly in June after increasing about \$275/ton throughout April and May. Product is mostly trading between \$1925/ton and \$2025/ton, though the CME spot price is below this range. Combined NDM/SMP production was up 3.9% in the first four months of the year. NDM stocks at the end of April were 120,800 tons, up 5.6% from a year ago.

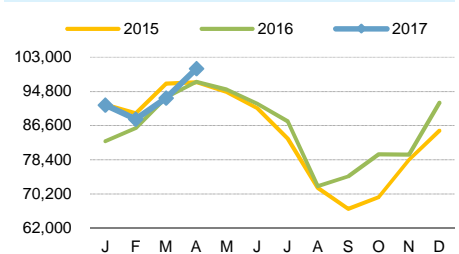
The whey market has softened since early May. Dry whey is mostly trading between \$975/ton and \$1025/ton, down about \$125 in the last seven weeks. Likewise, WPC prices are down about \$225 in the last four months. In the first four months of the year, dry whey production was up 3.5% to a five-year high. Stocks climbed to 38,500 tons, the most ever for end of April. WPC production, on the other hand, was down 1.8% and stocks had fallen to a three-year low for that date.

Lactose prices have started to soften (to about \$875/ton) after more than doubling from November 2015 to April 2017. Production was up 4.9% in the first four months of

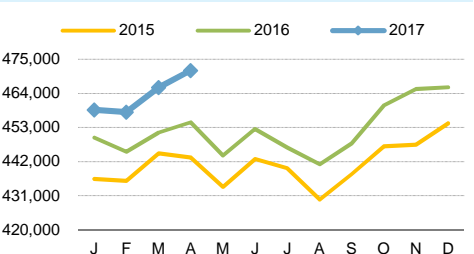
U.S. MILK PRODUCTION (000 MT; 30-DAY MOS.)



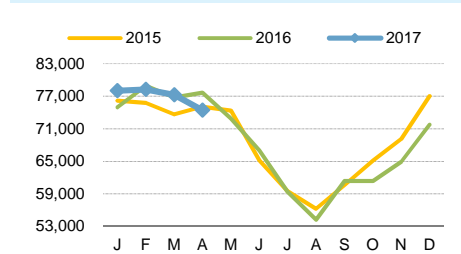
U.S. NDM/SMP PROD. (MT; 30-DAY MOS.)



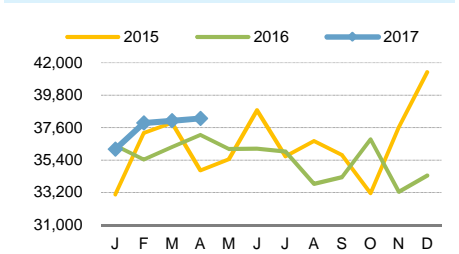
U.S. CHEESE PRODUCTION (MT; 30-DAY MOS.)



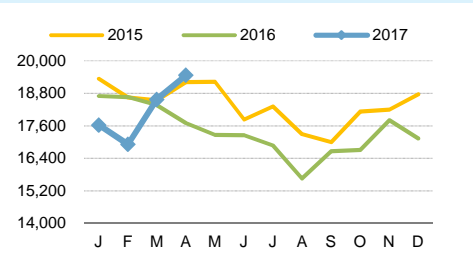
U.S. BUTTER PRODUCTION (MT; 30-DAY MOS.)



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



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



Source: USDA, USDEC.