

## Overview

The dominant feature of the U.S. dairy landscape in the early months of 2014 is clearly the record price levels for milk and some key dairy products that determine the milk price. The basic driver of the extraordinary current price situation, which is global, not just domestic, is the normal working out of the forces of supply and demand. Demand for dairy products grew strongly in 2013, particularly in the dairy importing countries in east and Southeast Asia, led by China. At the same time, total milk production by the world's major dairy-exporting countries, including the United States, was hardly up at all.

International dairy product demand growth will likely be more moderate this year compared with last, but the key to this year's outlook will remain the rate at which milk production will increase in the world's largest exporting countries.

## Milk Production

This chart supplies much of the explanation for the current very tight global dairy situation. It shows annual milk production for 2012-2014 in the five largest dairy-exporting countries, with the 28-member European Union considered as a single milk production source. Total milk production in these five, which supply over 80 percent of total world dairy exports as well as their domestic consumption, was virtually flat in 2013, due to weather issues and high feed costs. Strong international growth in dairy product demand last year in the face of this relatively constant supply has produced the record high milk prices currently being received by farmers internationally. Better weather conditions in most areas and lower feed costs are projected for 2014. The combination of these factors will both improve pastures as well as encourage more supplemental feeding in the Southern Hemisphere countries, and result in more intensive feeding in Northern Hemisphere milk production areas. Milk production is currently projected to grow by approximately two percent in 2014 in response to the current favorable price, cost and weather situations in these five key areas.

	EU-28	U.S.	New Zealand	Argentina	Australia	Total
<b>Milk Production (million metric tons)</b>						
<b>2012</b>	139.0	91.0	20.6	11.7	9.8	<b>272.0</b>
<b>2013 (p)</b>	139.1	91.3	19.7	11.8	9.6	<b>271.4</b>
<b>2014 (f)</b>	140.0	93.3	20.6	12.2	9.9	<b>276.0</b>
<b>Growth (percent)</b>						
<b>2013/12*</b>	0.3%	0.6%	-4.1%	1.3%	-2.2%	<b>0.1%</b>
<b>2014/13</b>	0.6%	2.2%	4.5%	3.5%	3.2%	<b>1.7%</b>

USDA estimates and forecasts, Dec. 2013 (U.S., Mar. 2014). \*Adjusted for leap year

USDA is currently predicting that milk production in the United States, which accounts for one-third of milk volumes shown in the table above, will grow by 2.2 percent in 2014, largely on increases in production per cow. USDA's forecasts also imply that the U.S. will increase its milk output this year by a larger total volume than any of the other four major dairy product exporters. Preliminary USDA numbers show U.S. milk production rose about one percent year-over-year in January, while milk cow numbers were flat. It is anticipated that the current high domestic milk

prices and continued moderation of feed prices will lead more quickly to increased average production per cow rather than expansion of total cow numbers.

## U.S. Dairy Trade

U.S. dairy export growth was exceptionally strong in 2013. Last year, U.S. dairy exporters added more volume over the previous year, measured in total milk solids exported, than in any other year except 2010, when dairy exports recovered strongly from the depressed levels of 2009. The United States exported 15.5 percent of its total milk solids production in 2013, the highest level by this measure, as well as by absolute milk solids volume. The previous records were in 2011 and 2012, when about 13.2 percent of U.S. solids production was exported.

Export growth was strong in virtually all product categories in 2013, including the major categories of skim milk powder/nonfat dry milk, dry whey and lactose. Butter exports almost doubled. It is estimated that the Cooperatives Working Together ([cwt](#)) program provided export assistance to approximately 80 percent of U.S. American-type cheese exports, about 20 percent of total U.S. cheese exports and over half of U.S. butter exports last year.

The United States imported the equivalent of three percent of its production of milk solids in 2013, in all dairy products and products containing dairy ingredients, the same level as dairy imports in 2012.

Exports	Jan-Dec. 2013	Jan-Dec. 2012	2012-2013 Change	Percent Change
		(metric tons)		
Butter	81,189	43,319	37,870	88%
Anhydrous Milk Fat/Butteroil	9,544	2,796	6,748	242%
Cheddar Cheese	63,044	52,247	10,797	21%
American-type Cheese	71,831	56,337	15,494	28%
Total Cheese	316,558	259,852	56,706	22%
Nonfat Dry Milk/Skim Milk Powder	554,752	444,707	110,045	25%
Whole Milk Powder	39,145	20,933	18,212	88%
Dry Whey	357,530	329,336	28,195	9%
Whey Protein Concentrate / Isolate	137,600	138,519	-919	0%
Lactose	341,747	306,984	34,763	12%
Imports	Jan-Dec. 2013	Jan-Dec. 2012	Percent Change	% of 2013 Safeguard
		(metric tons)		
Butter	5,170	6,401	-19%	68%
Butter Substitutes (Butteroil & AMF)	2,106	5,712	-63%	30%
Cheddar Cheese	6,967	11,239	-38%	56%
American-type Cheese	94	11	794%	4%
Italian-type Cheese	13,963	14,682	-5%	54%
Casein	82,587	84,322	-2%	N/A
MPC (all protein levels)	54,422	62,017	-12%	N/A

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## Commercial Disappearance

Commercial disappearance, including domestic consumption and exports, was up in 2013 over 2012 in total and for most products except fluid milk and nonfat dry milk. Growth in commercial use of other-than-American type cheese was slightly stronger than for American cheese types. Growth in commercial use of butter was particularly strong. Fluid milk sales have been declining since 2010. The drop in commercial use of nonfat dry milk is somewhat misleading since USDA does not include skim milk powder, the protein-standardized form of nonfat dry milk used for export, in its commercial disappearance calculations. Commercial disappearance of all forms of nonfat milk powders increased by about 2 percent in 2013 over 2012.

Commercial Disappearance	Jan. - Dec. 2013	Jan. - Dec. 2012	2012 - 2013 Change	Percent Change
	(million pounds)			
Total Fluid Products	51,513	52,850	-1,337	-2.3%
Butter	1,930	1,847	83	4.8%
American cheese	4,453	4,358	94	2.4%
Other-than-American cheese	7,028	6,813	215	3.4%
Nonfat dry milk	1,534	1,750	-216	-12.1%
All Products (milk equiv. milkfat basis)	205,095	201,832	3,263	1.9%

## Dairy Product Production

Total U.S. production of all dairy products is little changed over the past year, mirroring the modest change in raw milk production over the same period. However, changes occurred in production of individual dairy products or categories, some of them significant, reflecting changes in domestic consumption and exports. Total cheese production was 1.6 percent higher in January 2014 than in January 2013, to supply both increased domestic consumption and exports. Italian-type cheese production grew by 4.6 percent while production of American types was up 1.1 percent. These differences reflected consumption patterns in the U.S. domestic market over the period.

Nonfat dry milk production was down slightly while skim milk powder production grew significantly, reflecting continued strong movement of skim powders to export.

## Inventories

U.S. dairy product inventories were down this past January over a year earlier. This reflected the generally modest growth in production of these products coupled with stronger increases in commercial disappearance. Butter and nonfat dry milk inventories were drawn down significantly. Increased commercial disappearance of butter and greater butter exports were generated primarily by drawing down butter stocks, which had become excessive by early 2013. As with its commercial disappearance calculations, USDA does not include protein-standardized skim milk powder in its reported inventories of nonfat dry milk.

The drawn-down U.S. dairy inventory situation, itself a product of strong demand and moderate production growth, has been a key contributor to the current record high milk and dairy product price situation.

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## **Milk and Dairy Product Prices**

February saw the establishment of new all-time record levels for many key prices in the U.S. dairy industry. Record-high prices were reported for the USDA/AMS prices for cheese and nonfat dry milk, for the USDA/AMS announced Federal Order prices for Class III milk, Class IV milk and the Class I mover, and for the USDA/NASS U.S. average all-milk price. The advance Class I mover has already been announced for March at more than \$1.60 per cwt. above the February record. The U.S. average all-milk price also set back-to-back all-time highs in January and February. January's revised all-milk price was \$1.40 per cwt. above the previous record (attained in both 2011 and 2012) while the February preliminary price is \$1.20 per cwt. above that, and could be revised yet higher. The dairy futures markets indicate that the March all-milk price could be higher still.

Retail prices for key dairy products, as reported by the U.S. Department of Labor's Bureau of Labor Statistics (BLS), continue to show no indication of following the current high wholesale prices of those same products. BLS-reported retail prices for fluid whole milk rose modestly in January over a year earlier while natural cheddar cheese retail prices dropped.

## **Feed Prices**

Corn prices have dropped substantially over the past year, as the record corn harvest in 2013 put to rest persistent weather-related market worries that kept prices high earlier in the year. Alfalfa hay prices reported by USDA were also down in February, while soybean meal prices remained high.

Moderating feed prices, together with record high all-milk prices are generating very high levels for the milk price-feed cost margin formula established in the recently-enacted 2014 farm bill. The preliminary monthly value of this margin for February, at \$13.59 per cwt., is still about one dollar per cwt. below the highest-ever level this indicator reached during a few months in 2007. For the dairy Margin Protection Program established in the new farm bill, the margin formula will be determined by USDA as averaged over two months for the six consecutive 2-month periods of January-February, March-April, May-June, July-August, September-October, and November-December. For the bill's Dairy Product Donation Program, the margin will be determined on a monthly basis. ■

Milk & Dairy Products Production	January-2014	January-2013	2013 - 2014 Change	Percent Change
<b>Milk Production</b>				
Cows (1000 head)	9,207	9,223	-17	-0.2%
Per Cow (YTD pounds)	1,874	1,855	19	1.0%
Total Milk (million pounds)	17,255	17,109	146	0.9%
<b>Dairy Products Production</b>				
<b>Cheese</b>		(million pounds)		
American Types	380	376	4	1.1%
Cheddar	278	281	-3	-1.0%
Italian	418	400	18	4.6%
Mozzarella	332	311	21	6.6%
Total Cheese	951	936	15	1.6%
<b>Butter</b>	182	188	-6	-3.0%
<b>Milk Powders</b>				
Nonfat Dry Milk	140	143	-3	-2.3%
Skim Milk Powder	59	48	11	23%
Dry Whey	70	91	-21	-23%
Whey Protein Concentrate	45	37	8	23%
<b>Dairy Product Inventories</b>	<b>January 2014</b>	<b>December 2013</b>	<b>January 2013</b>	<b>Percent Change 2013- 2014</b>
		(million pounds)		
Butter	138	112	207	-33%
American cheese	631	618	643	-1.9%
Other cheese	385	391	389	-1.0%
Nonfat dry milk	149	133	198	-25%
<b>Prices</b>	<b>February 2014</b>	<b>January 2014</b>	<b>February 2013</b>	<b>Change 2013- 2014</b>
<b>AMS Commodity Prices</b>		(per pound)		
Butter	\$1.8320	\$1.6475	\$1.5438	\$0.2882
Cheese	\$2.2864	\$2.0838	\$1.6623	\$0.6241
Nonfat Dry Milk	\$2.0783	\$2.0335	\$1.5559	\$0.5224
Dry Whey	\$0.6314	\$0.6025	\$0.6393	-\$0.0079
<b>Producer Prices</b>		(per hundredweight)		
Class I Mover	\$22.02	\$21.48	\$18.21	\$3.81
Class III	\$23.35	\$21.15	\$17.25	\$6.10
Class IV	\$23.46	\$22.29	\$17.75	\$5.71
All Milk	\$24.70	\$23.50	\$19.50	\$5.20
<b>Feed Prices</b>				
Corn (per bushel)	\$4.47	\$4.42	\$7.04	-\$2.57
Soybean Meal (per ton)	\$509	\$480	\$441	\$69
Alfalfa Hay (per ton)	\$188	\$185	\$218	-\$30
<b>2014 Farm Bil Margin (per cwt.)</b>	<b>\$13.59</b>	<b>\$12.70</b>	<b>\$5.72</b>	<b>\$7.86</b>
<b>Retail Prices</b>	<b>January 2014</b>	<b>December 2013</b>	<b>January 2013</b>	<b>Change 2013- 2014</b>
Fuild milk (per gallon)	\$3.552	\$3.501	\$3.525	\$0.026
Cheddar Cheese (per pound)	\$5.381	\$5.386	\$5.832	-\$0.451

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Dairy Management Inc.™ and state, regional, and international organizations work together to drive demand for dairy products on behalf of America's dairy farmers, through the programs of the American Dairy Association®, the National Dairy Council®, and the U.S. Dairy Export Council®.



The National Milk Producers Federation (NMPF) is a farm commodity organization representing most of the dairy marketing cooperatives serving the U.S.