

# **FIRST MONDAY**

**A dairy supply & demand analysis  
with long-range price forecasting**

Jerry Dryer, Chief Market Analyst, 05 Dec 2011



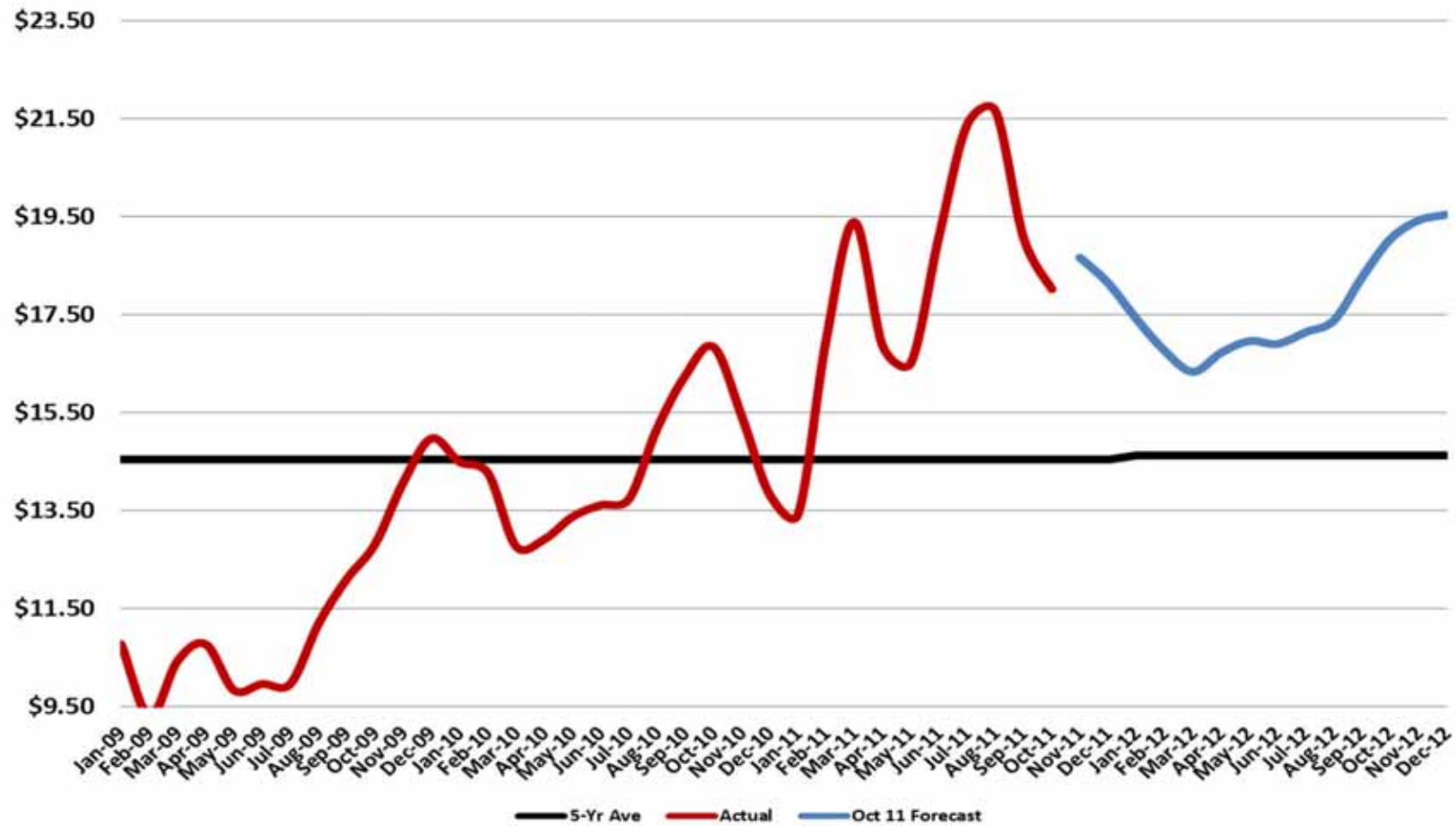
# Outlook in a nutshell

- **Milk production estimates revised slightly higher**
- **Demand forecast nudged slightly higher on better-than-expected exports**
  - **Domestic retail sales stall; foodservice sales “a little better than okay”**
    - Both channels will improve as the year progresses
    - Election year economics will drive sales
  - **International demand chewing thru additional milk in Southern Hemisphere**
- **Annual average for 2012 (with change from last month)**
  - **CME block cheese: \$1.7725 ( one penny higher)**
  - **CME butter: \$1.7250 (up eight cents)**
  - **NASS nonfat dry milk: \$ 1.4825 (up 10.5 cents)**
  - **NASS dry whey: \$0.6650 (up 13.5 cents)**
  - **Class III: 2011, \$18.60 (up 95 cents)**
  - **Class IV: 2011, \$17.90 (up \$1.25)**

# Uncertainties, risks, assumptions

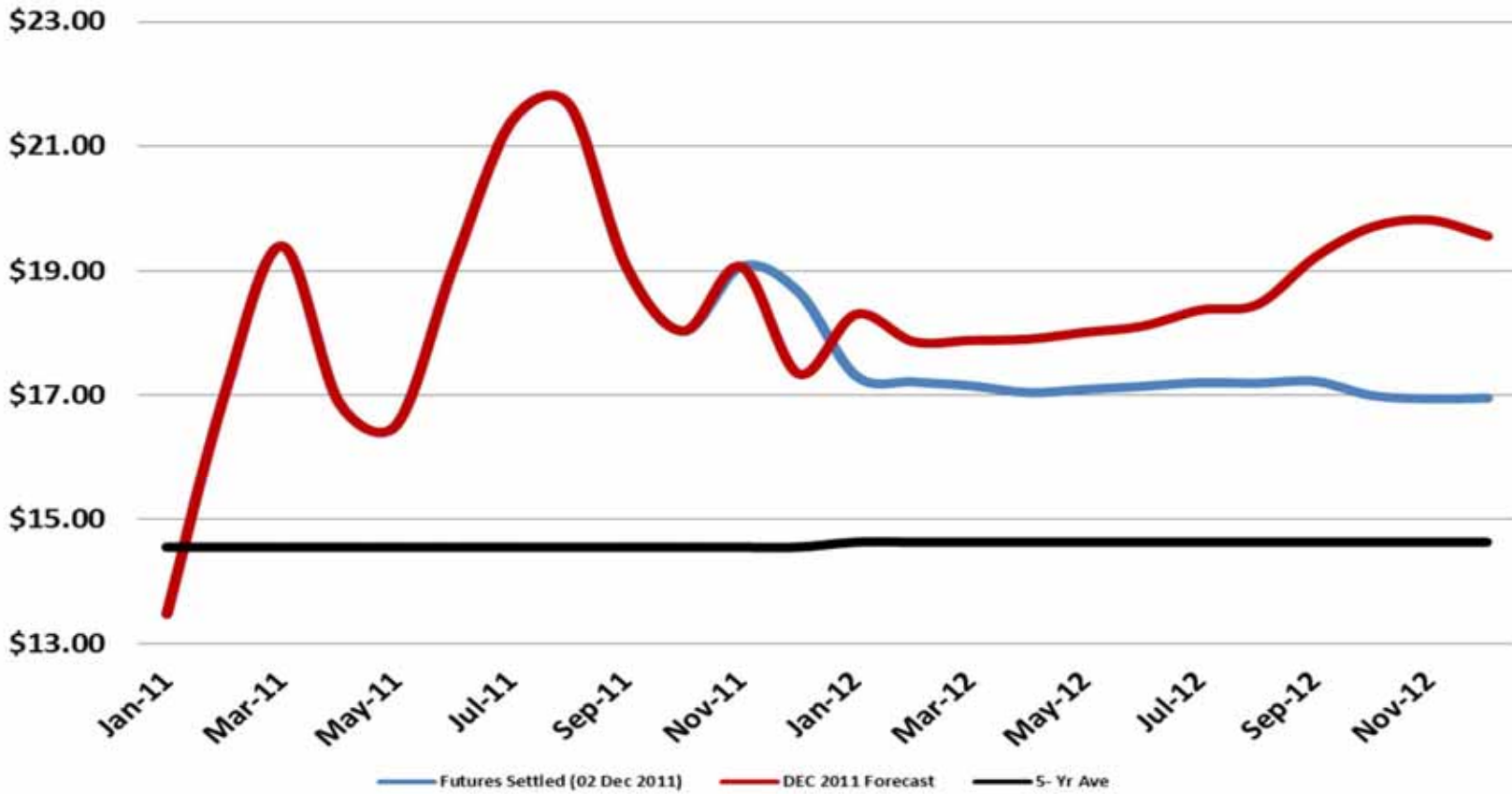
- **Mother Nature**
  - Feed supplies, feed quality, feed prices
- **Milk supplies**
  - New Oceania sharply higher; South America and EU strong
  - India becoming an importer
- **Worldwide economic conditions, trends**
  - USA and Western Europe economic woes
  - Some impact on otherwise strong economies in Asia
- **International trade trends**
  - Political issues
  - Currencies
  - Demand from China

# Class III Price Trend



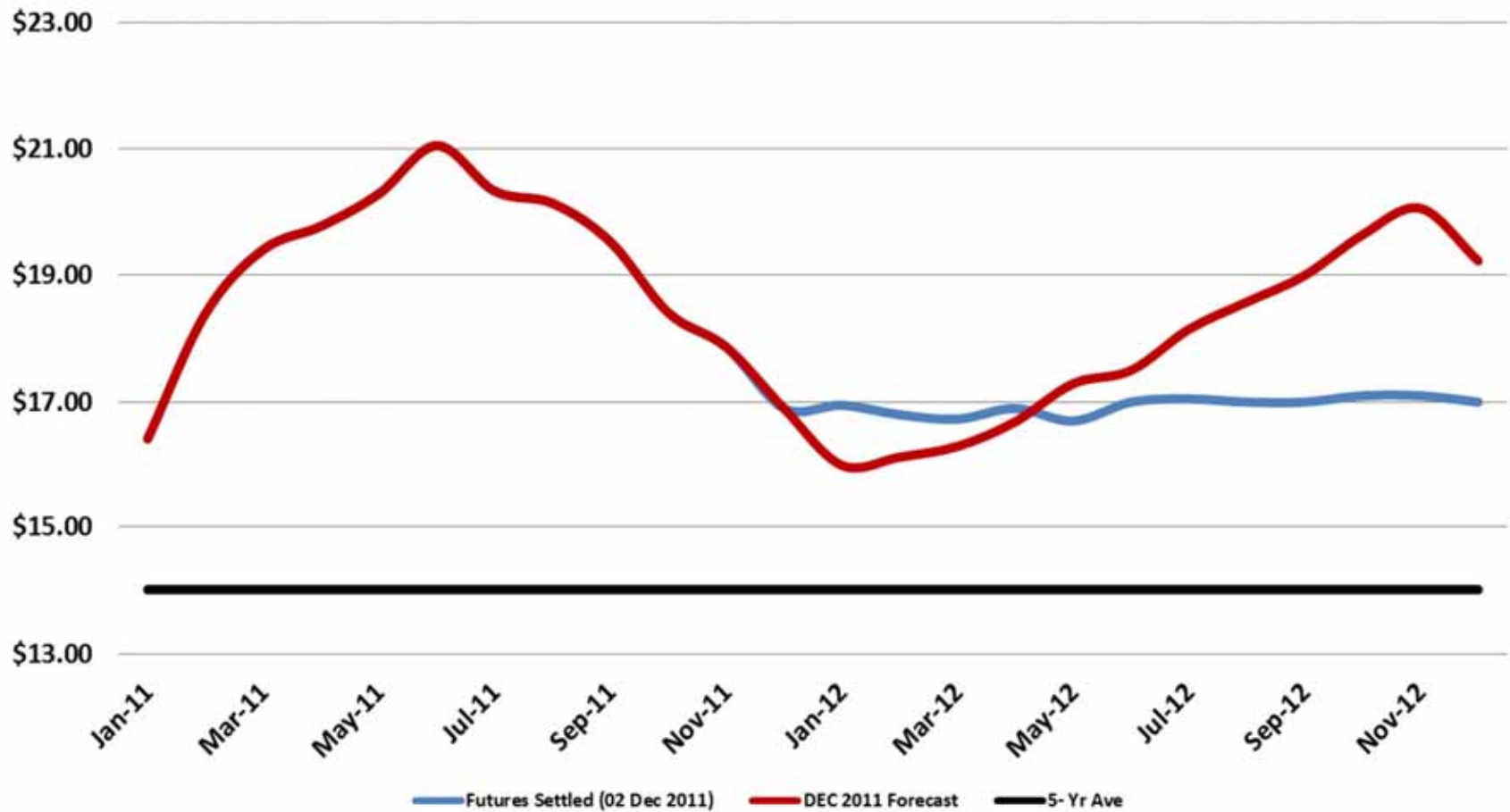
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# Class III prices



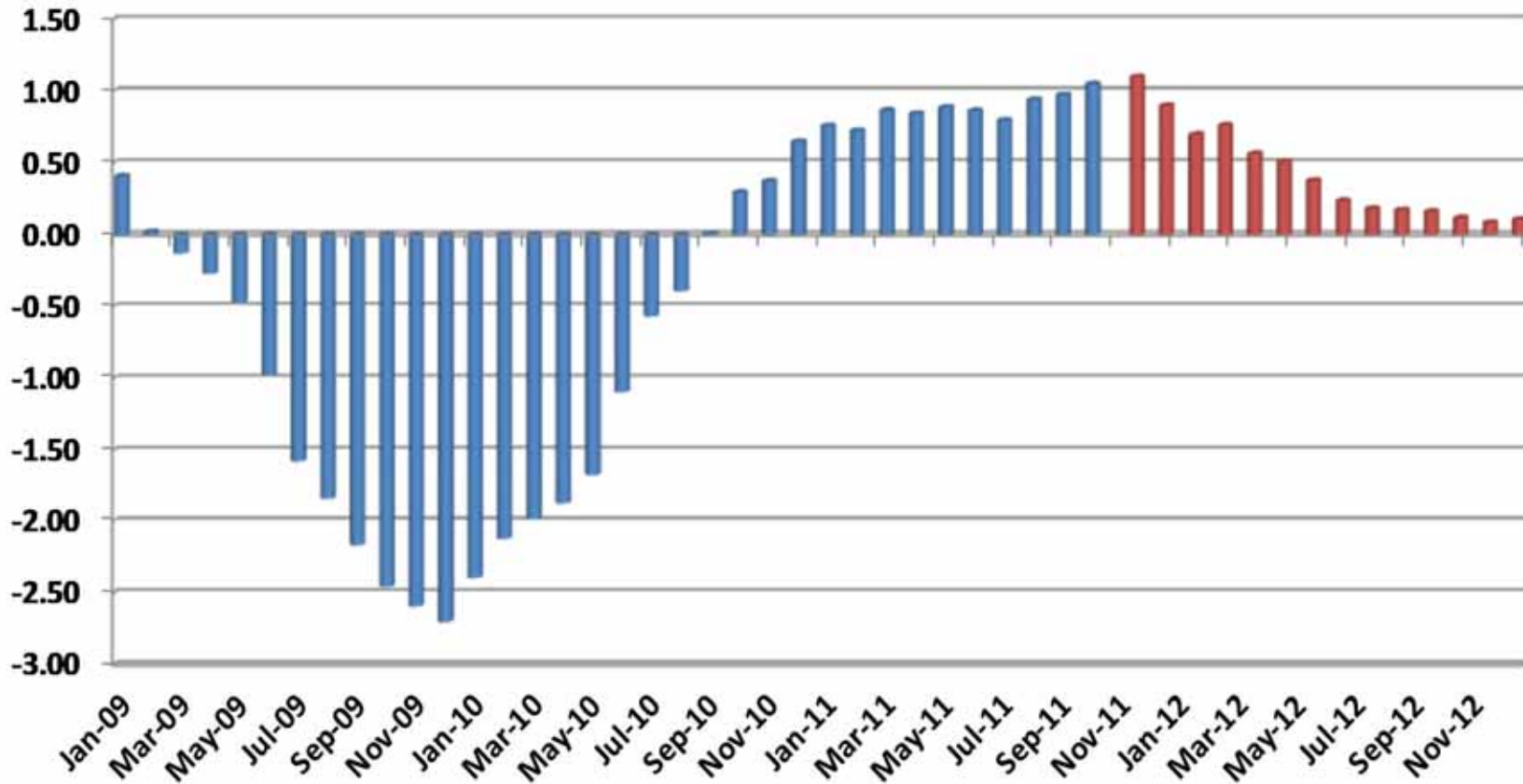
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# Class IV prices



# Milk cow numbers trend

(% Change YoY)



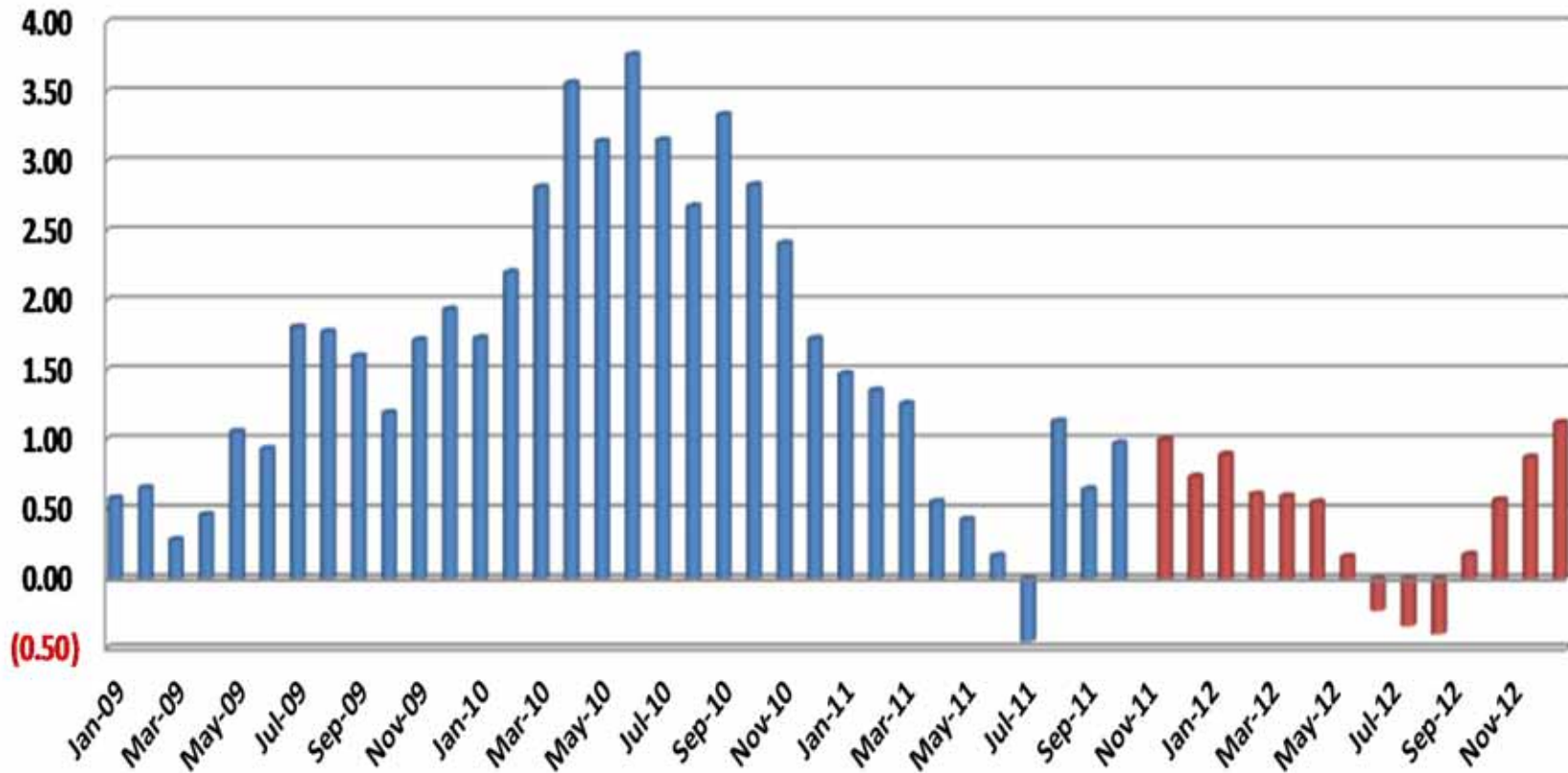
# Milk cow numbers

- **Expected herd size to contract; however, producers will “build base” in anticipation of supply mgt**
  - Returns over feed costs will be tight, but doable
  - Feed supply issues in some regions
  - Slaughter cow prices will drive culling
  - Milk producers with acreage may exit dairy and focus on growing corn and other crops
  - Ying and Yan

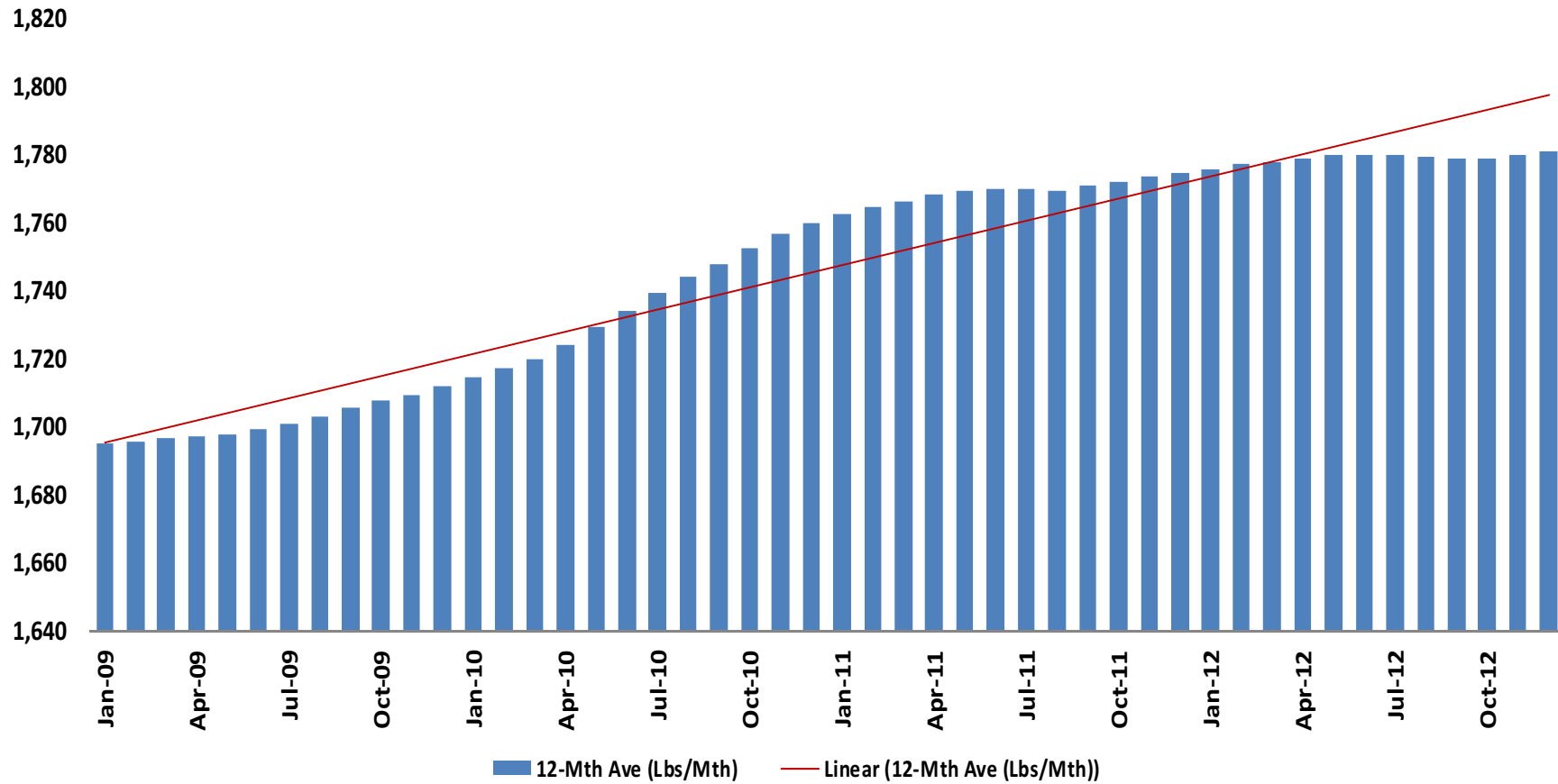
**Farm numbers will decline as producers exit  
and farm size will increase as producers expand**

# Production per cow trend

(% Change YoY)



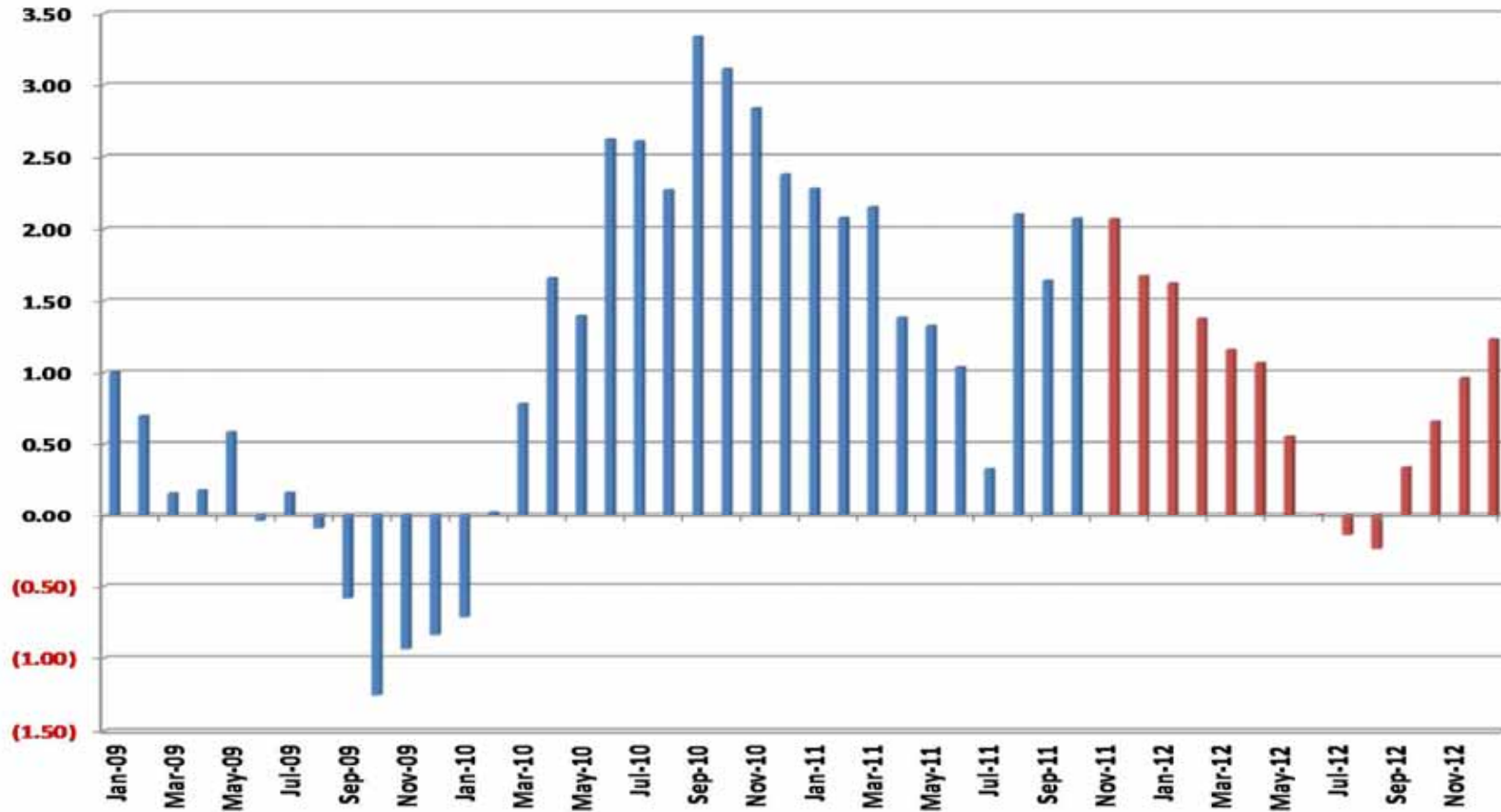
# Production per cow trend



# Milk per cow

- **Production per cow below trend in 2012**
  - **More, young animals in herd supportive of average output per cow**
  - **Feed prices (ROFC) & feed quality are beginning to limit growth**
    - **Alfalfa shortage, corn silage issues, corn for grain issues**
    - **Corn prices are now rationing usage**
    - **Revenue-over-feed-costs relatively good; however, USDA data don't fully reflect difficulties faced by producers in feed deficit areas; alfalfa prices very high**
- **Production per cow up 2.8% (+576 lbs) in 2010**
- **Expect an increase of 0.8% (+162 lbs) in 2011**
- **Expect production per cow to be flat (plus 0.4% or 81 lbs) for all of 2012**
  - **I won't be surprised if this number is higher; milk producers work magic**
  - **My earlier estimates for 2011 were too low**

## Total monthly milk production (% Change YoY)



# Total milk supply

- **Production in 2011**
  - **196.040 billion lbs**
    - **+1.67%**
- **Production in 2012**
  - **197.435 billion lbs**
    - **+0.71%**
- **Worldwide: Supply situation**
  - **NZ+++ , Australia+ , South America+++ , Europe+**

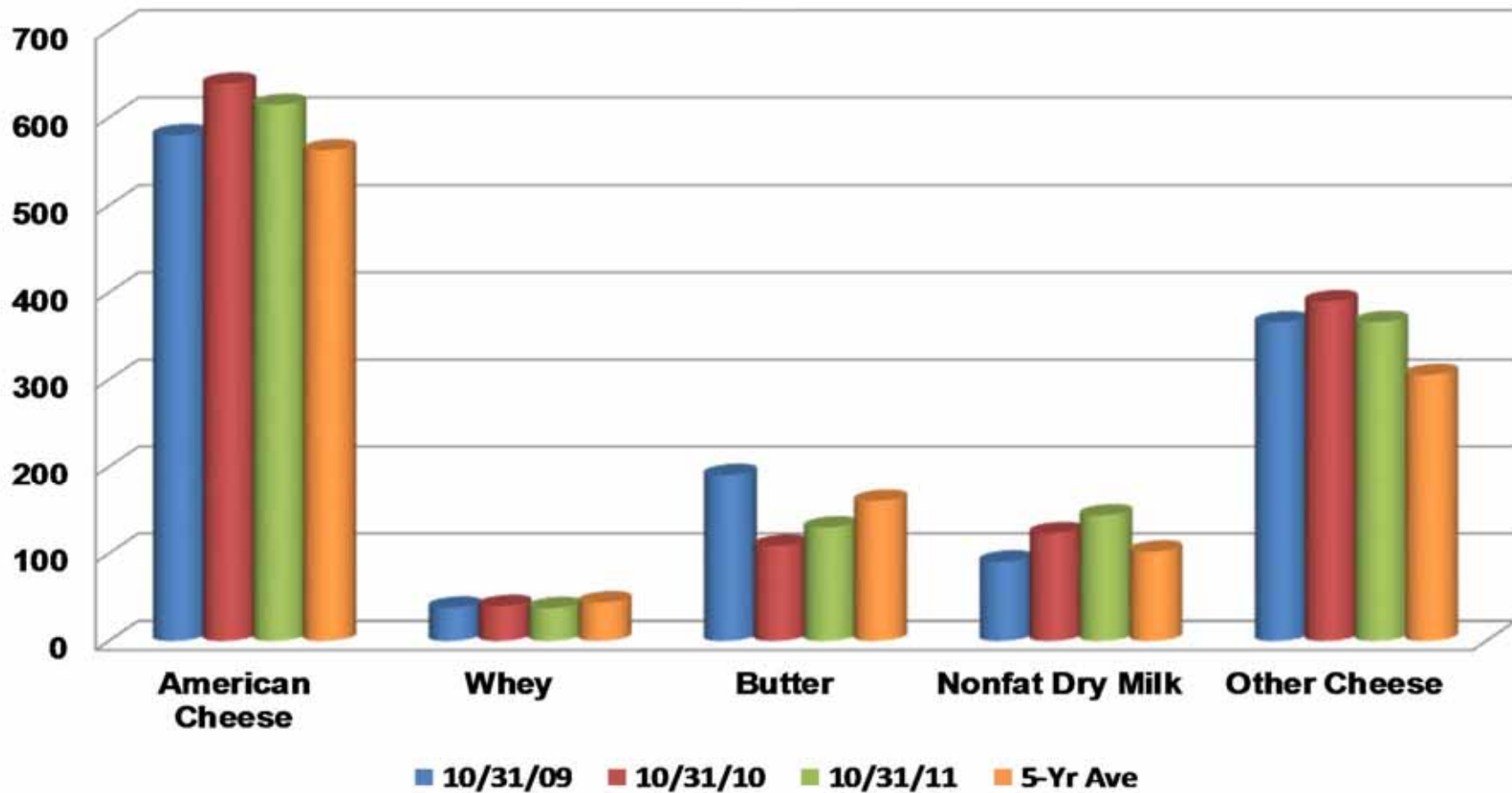
# Product production

## Factors to keep in mind

- A dip in retail beverage sales is sending more milk into manufactured products
- Relatively strong foodservice sales are helping
- Cheese production flat to lower
  - Shift away from Cheddar
  - Hard and soft Italian growth
- Butter/powder production up double digits

# Dairy product inventories

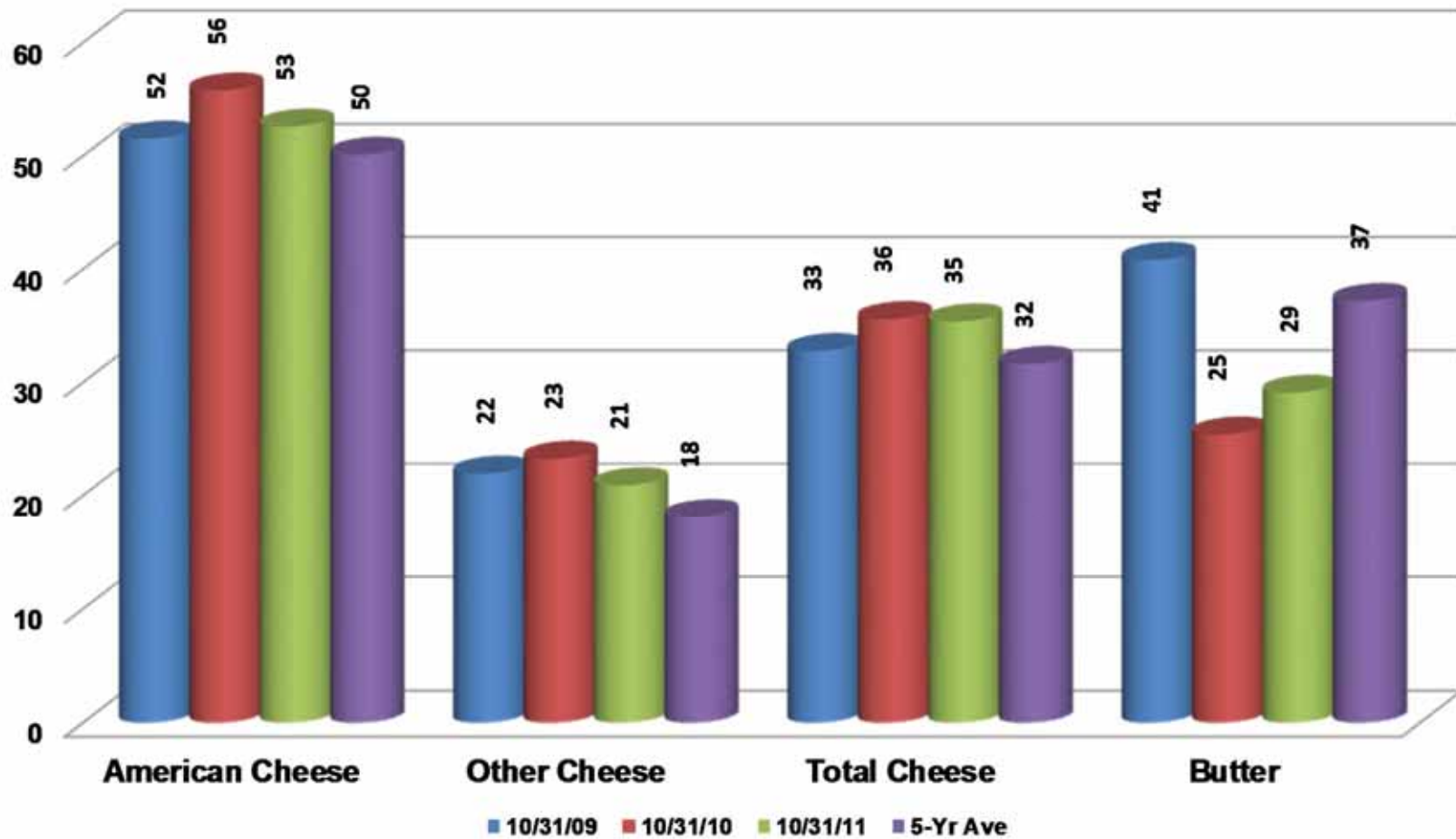
(Millions of Lbs)



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# Stocks to usage

(Days of Usage in Storage)



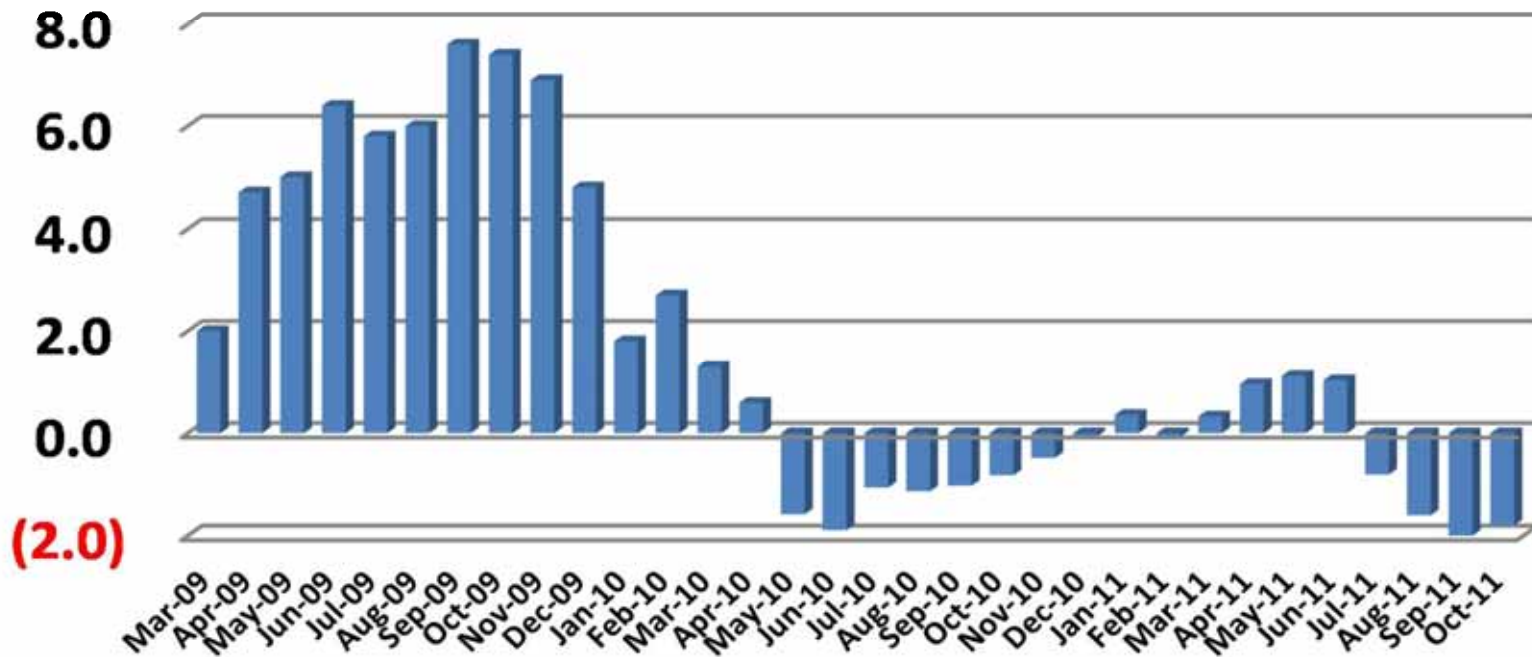
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# Product supply issues

- **Cheese inventories were reduced more than usual this year as production fell to or below one year ago**
  - American cheese inventories reduced above trend during Oct
  - Other cheese inventories down 9 million lbs in Oct when stocks are usually unchanged
  - Total cheese inventories at an 18-month low
- **Butter inventory had a smaller base and was reduced less than usual this year**
  - New production reloaded the cooler/freezer
- **Inventory levels being impacted by just-in-time ordering and or deliveries**

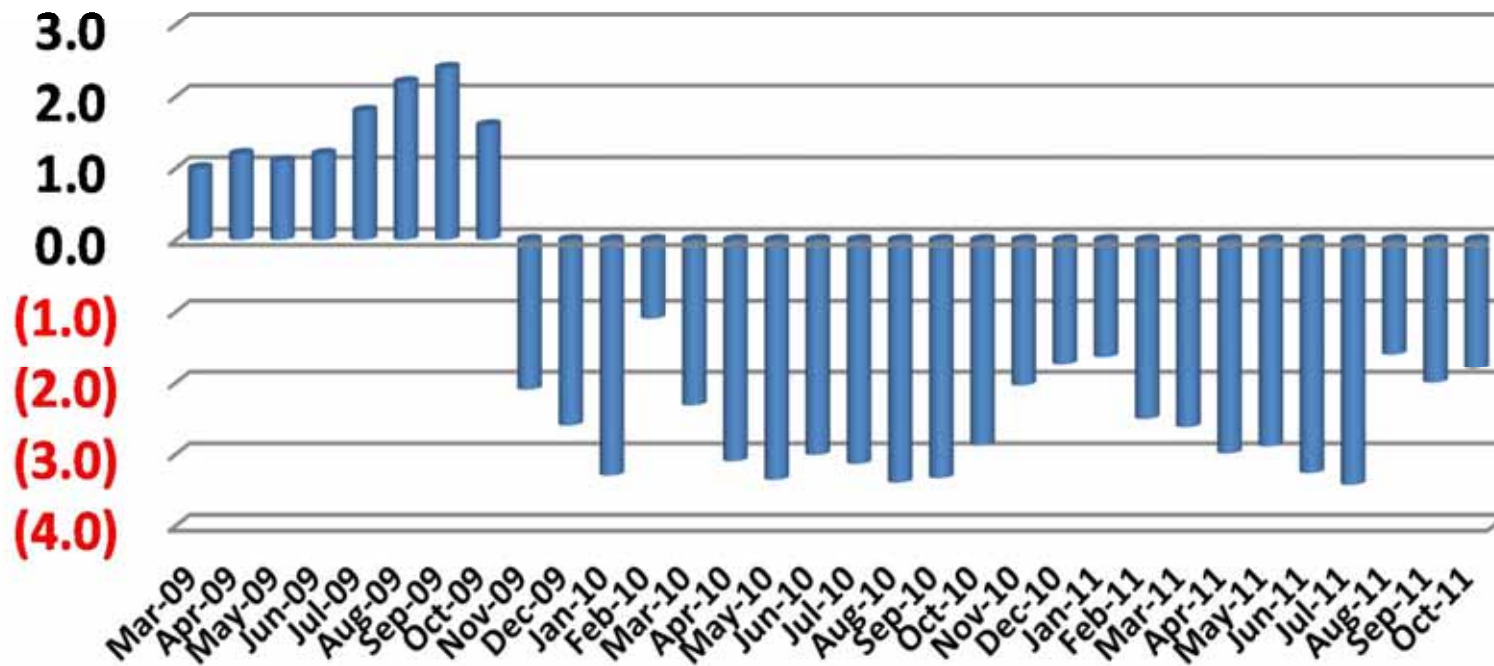
# Retail Cheese Sales

## (YoY % Change 3 Months Ending)



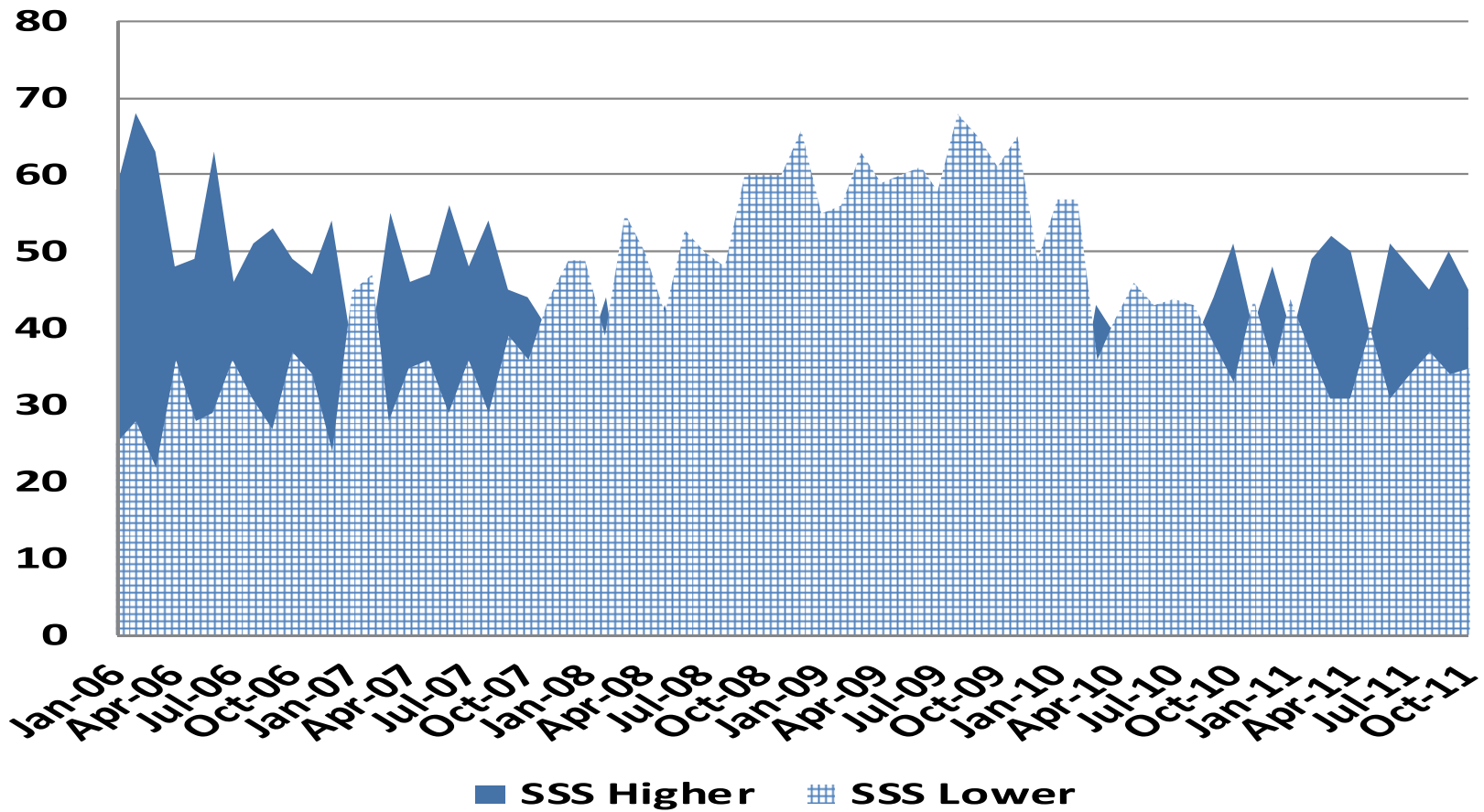
# Retail Beverage Milk Sales

(YoY % Change 3 Months Ending)



# Same-store sales

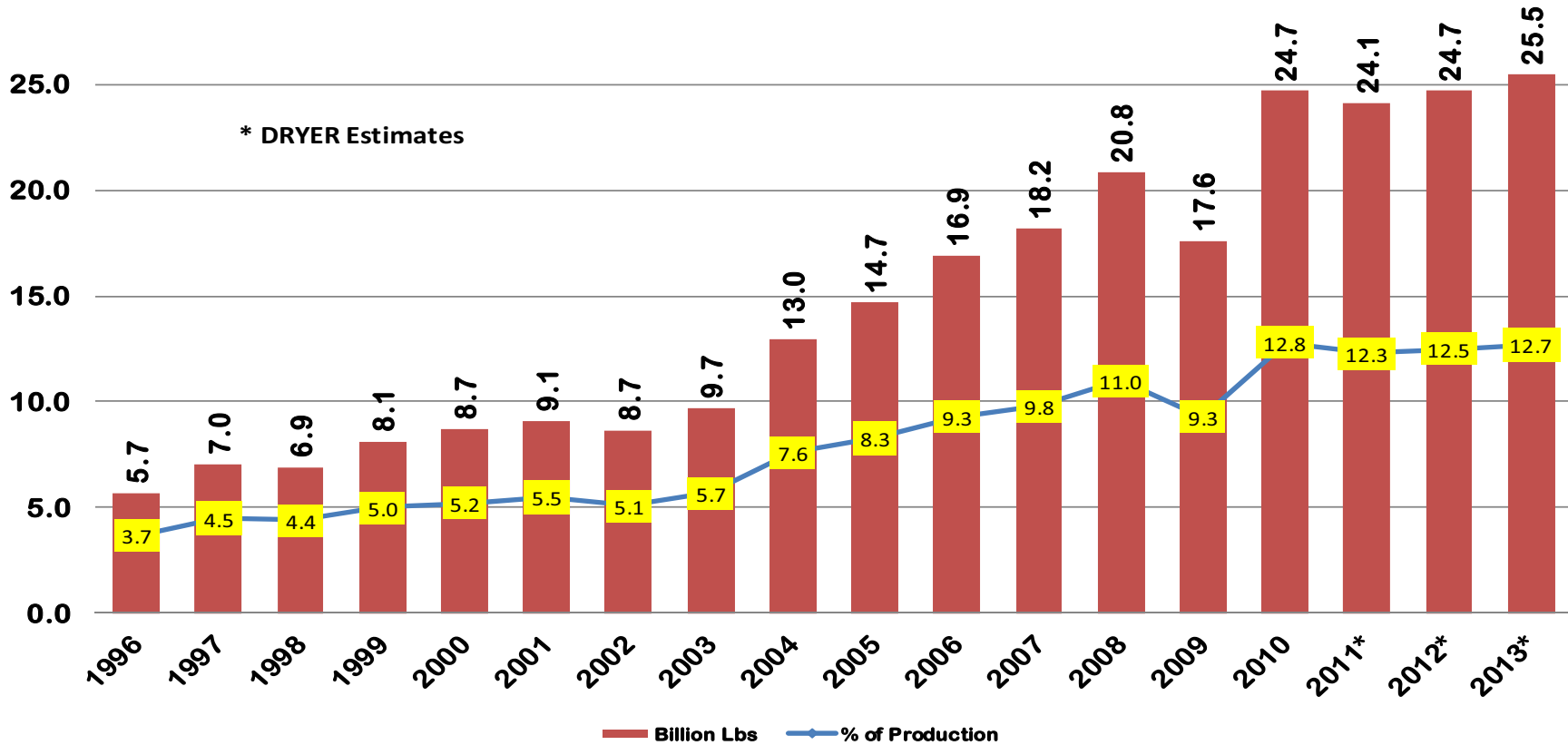
(Foodservice)(YoY)



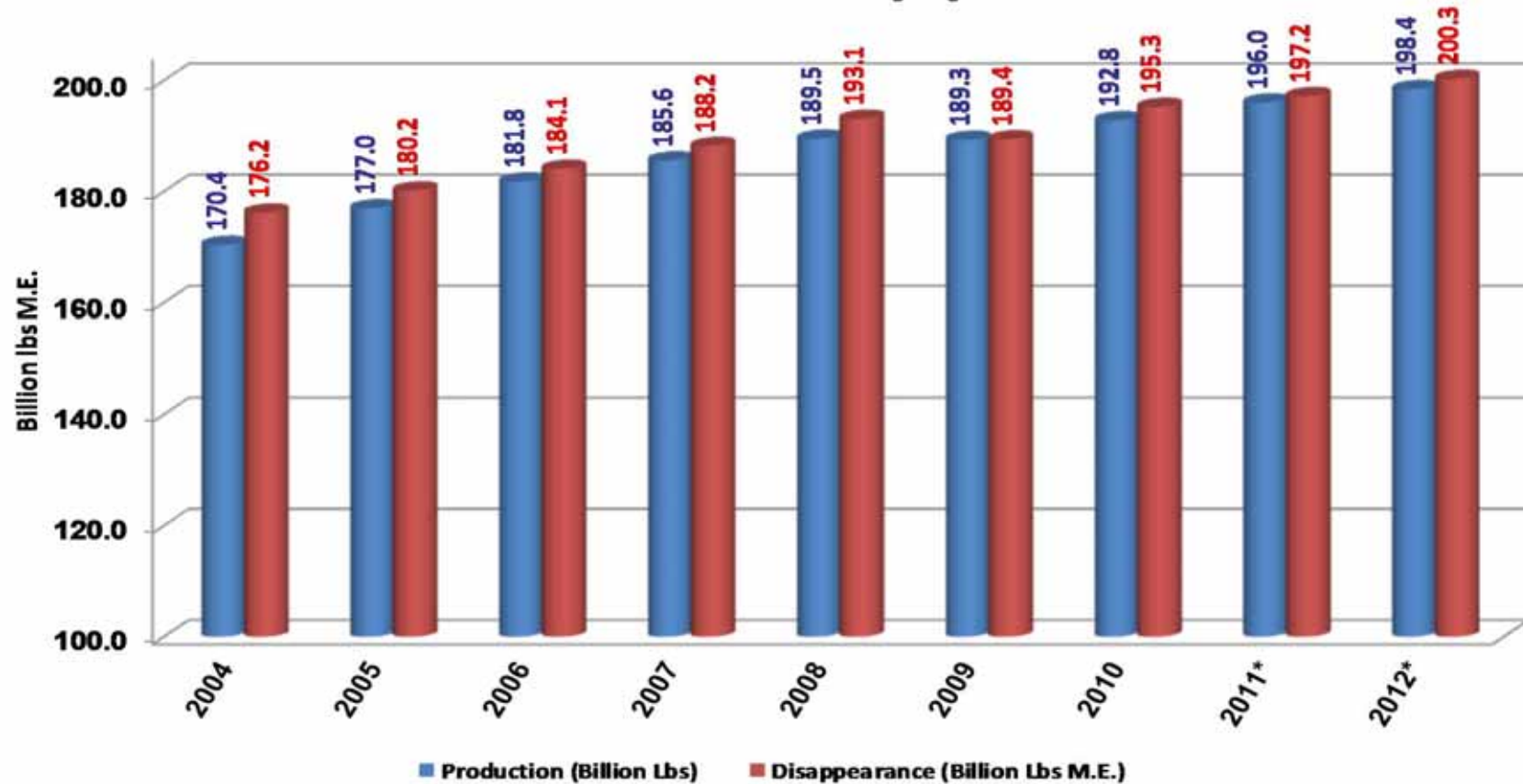
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# USA dairy exports

Billions of Lbs ME & % of USA Production)



# Milk production vs commercial disappearance



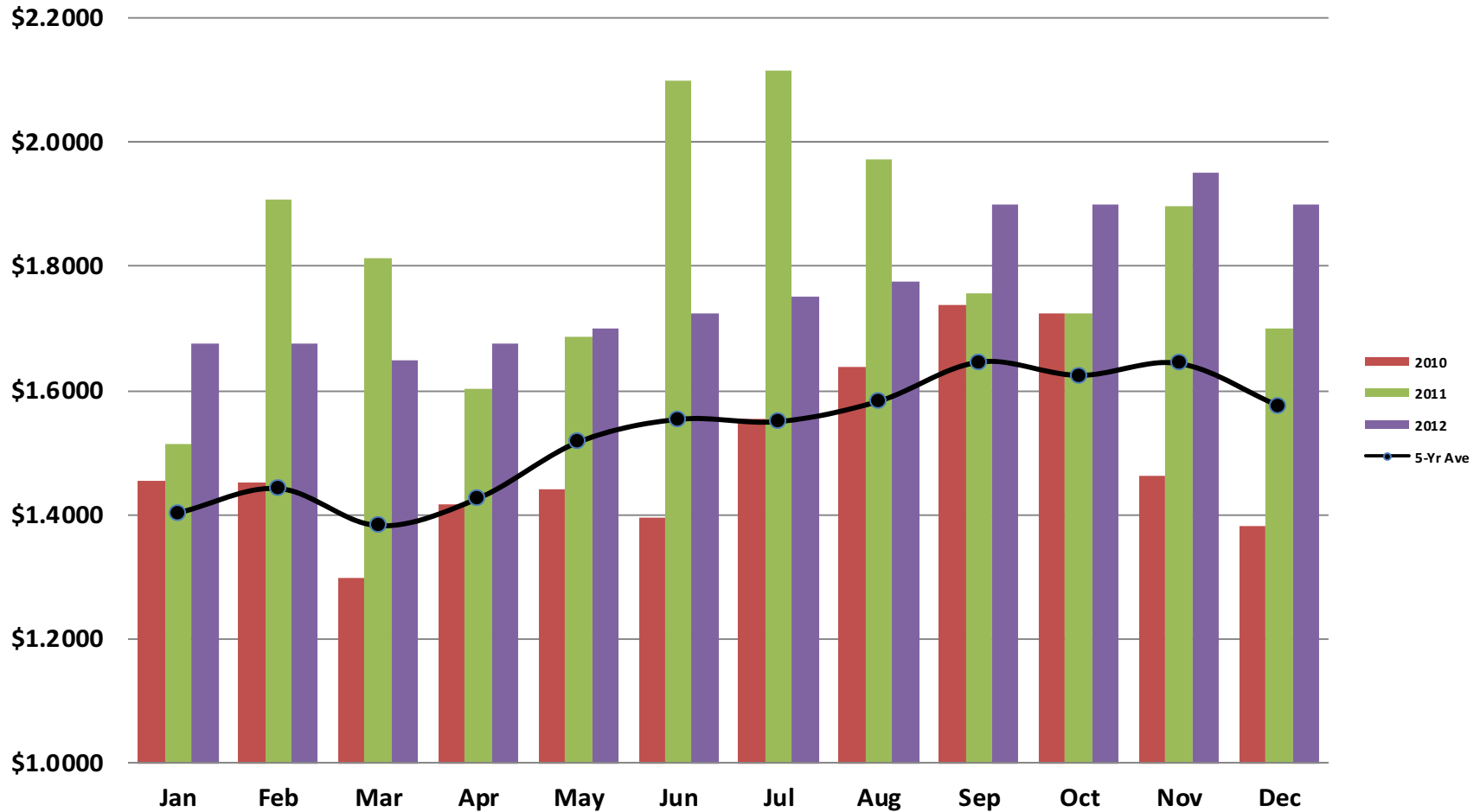
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# Dairy demand

- **Domestic demand**
  - Some fits and starts, but economic recovery continues
  - Employment picture showing gains
  - Retail sales below year-ago levels for cheese , butter, dairy beverages
  - School lunch chocolate milk issues
  - Foodservice lost some upward momentum; now in recovery
- **International demand**
  - Buyers are back
  - Futures markets are showing price strength
  - Hedging at acceptable prices is still possible
  - Southern Hemisphere production past seasonal peak
  - Tariff removed by Mexico; Korea FTA all approved
  - Strengthening emerging economies feeling impact of USA and Western European economic issues
  - Temporary price softness, now strength
  - Long-term prices will be higher than historic averages

# CME Block Cheese Price

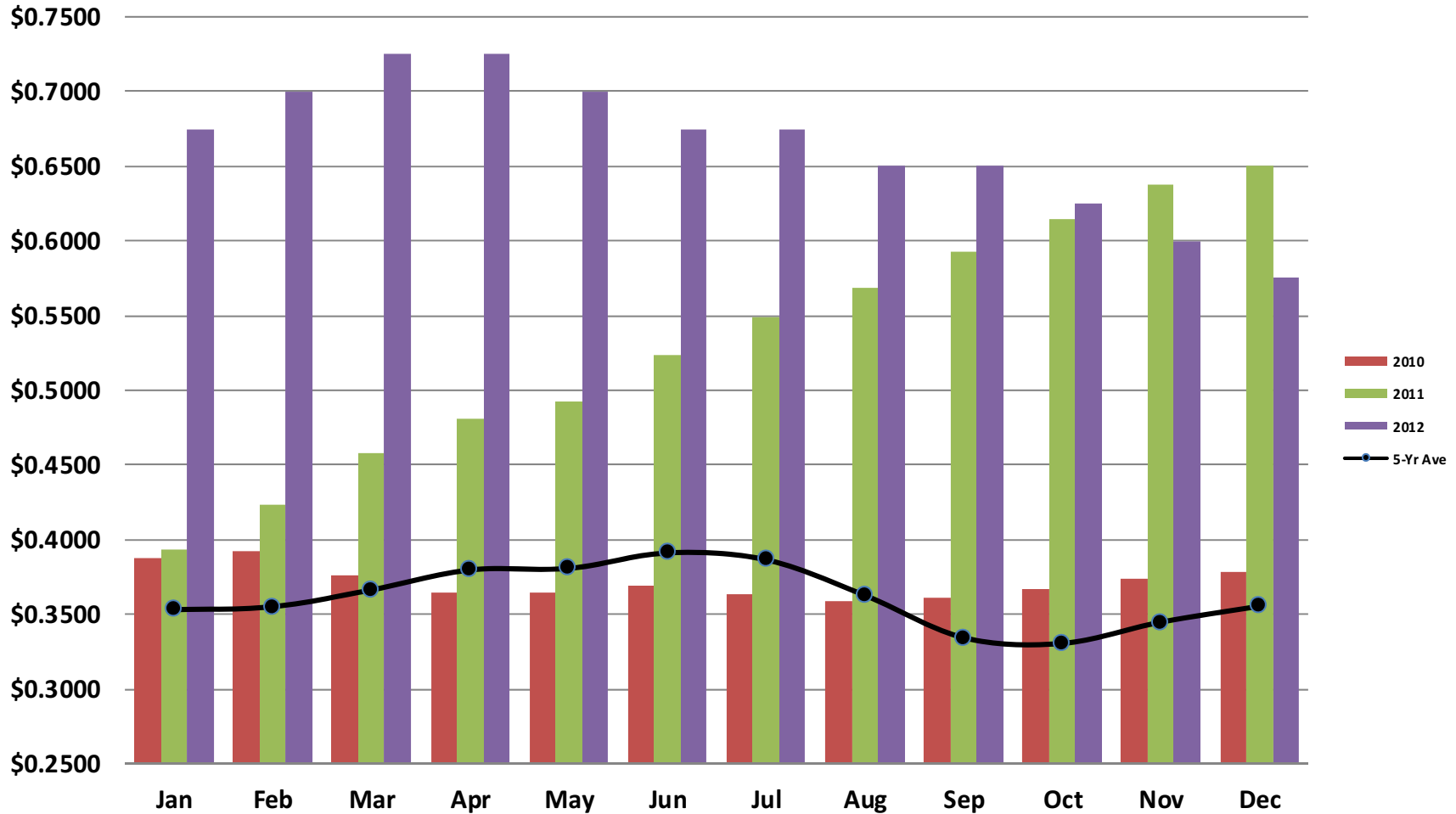
(Forecast Dec 2011 thru Dec 2012)



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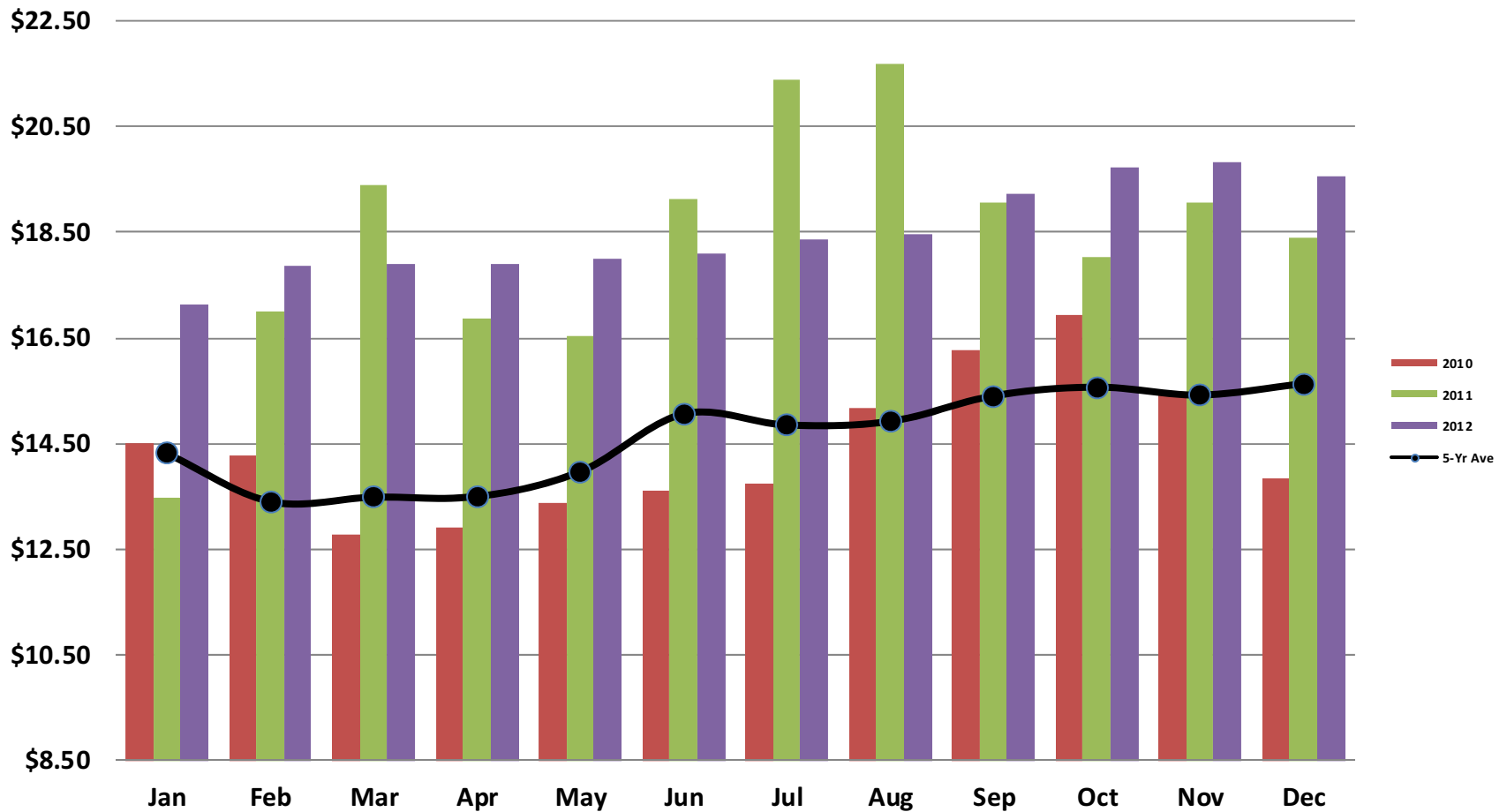
# NASS Dry Whey Price

(Forecast Dec 2011 thru Dec 2012)



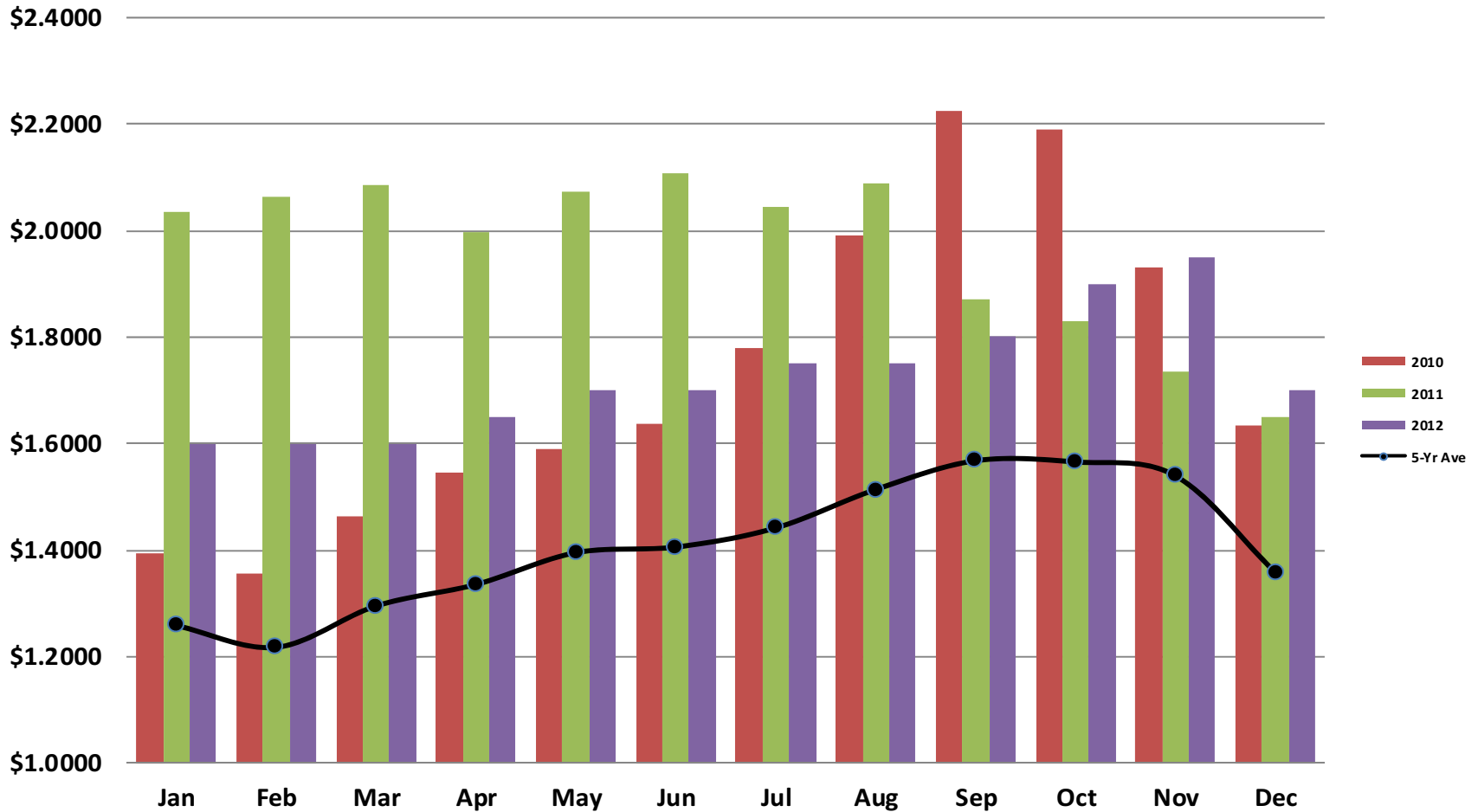
# Class III Milk Price

(Forecast Dec 2011 thru Dec 2012)



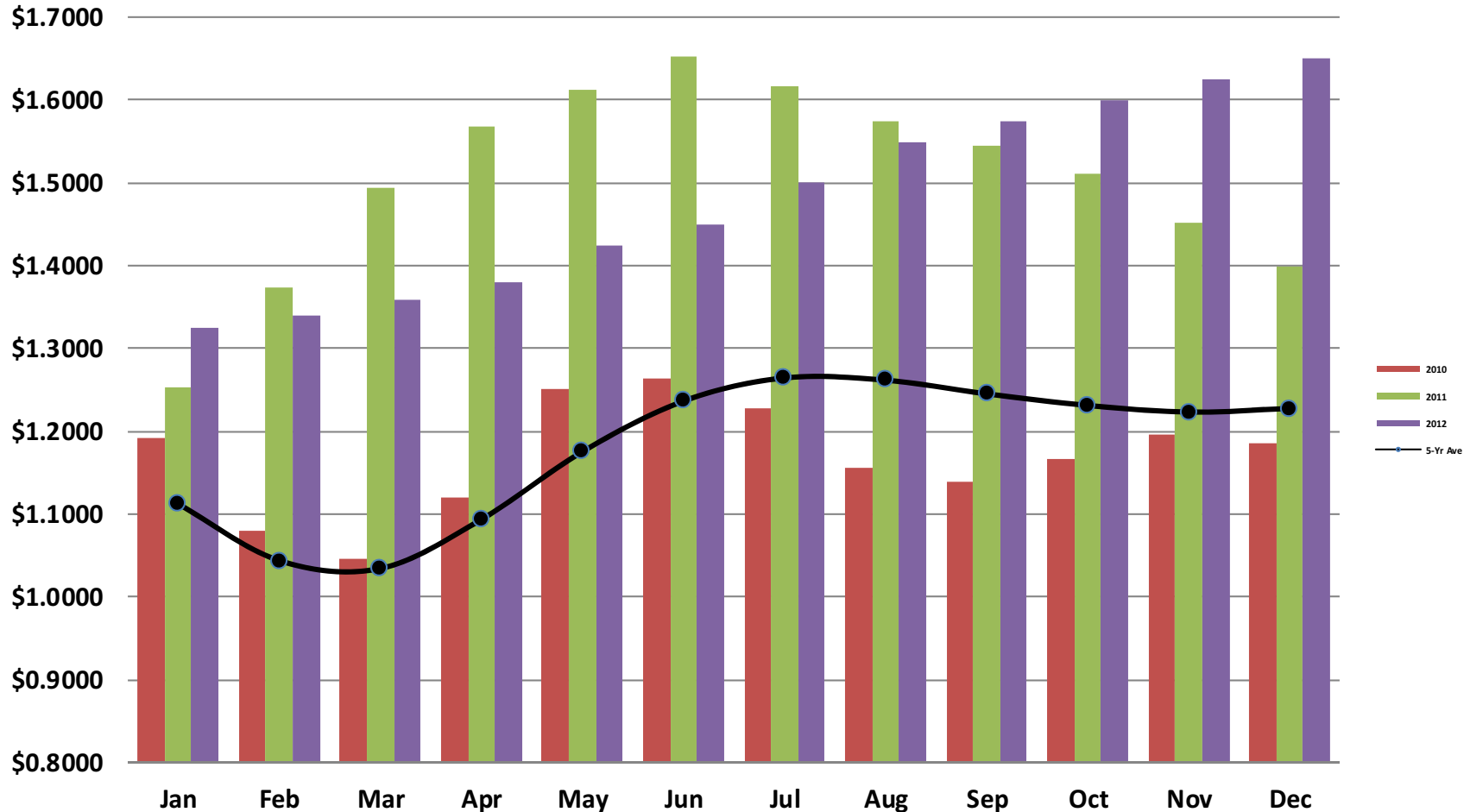
# CME Butter Price

(Forecast Dec 2011 thru Dec 2012)



# NASS Nonfat Dry Milk Price

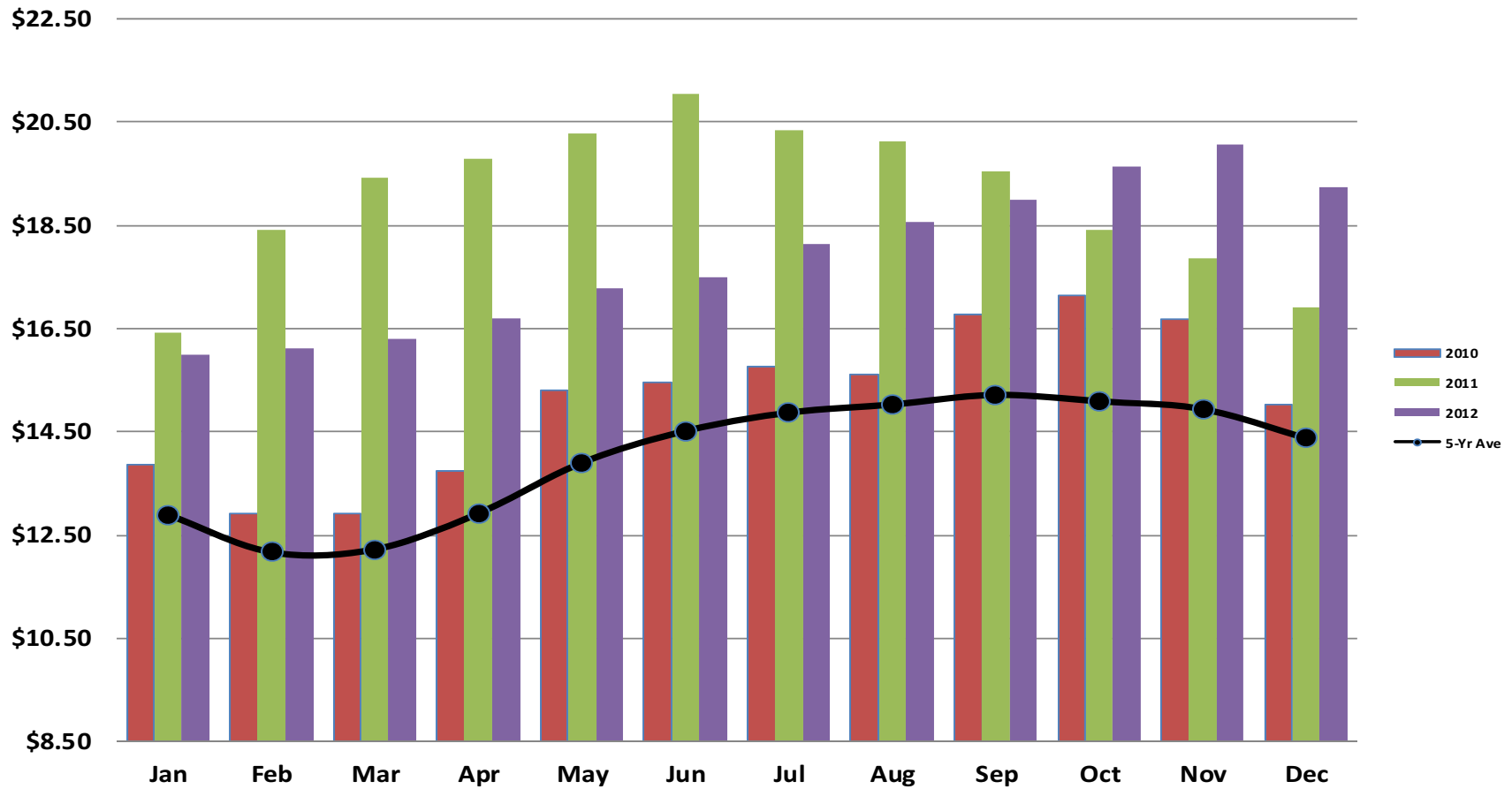
(Forecast Dec 2011 thru Dec 2012)



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# Class IV Milk Price

(Forecast Dec 2011 thru Dec 2012)



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# Month-by-month forecast

## Monthly price forecast

CME Block Cheese Price			12/05/11					Forecast Dec 2011 thru Dec 2012				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5-Yr Ave	\$1.4028	\$1.4423	\$1.3825	\$1.4266	\$1.5171	\$1.5538	\$1.5501	\$1.5829	\$1.6458	\$1.6244	\$1.6435	\$1.5750
2010	\$1.4536	\$1.4526	\$1.2976	\$1.4182	\$1.4420	\$1.3961	\$1.5549	\$1.6367	\$1.7374	\$1.7246	\$1.4619	\$1.3807
2011	\$1.5140	\$1.9064	\$1.8125	\$1.6036	\$1.6858	\$2.0995	\$2.1150	\$1.9725	\$1.7561	\$1.7231	\$1.8963	\$1.7000
2012	\$1.6750	\$1.6750	\$1.6500	\$1.6750	\$1.7000	\$1.7250	\$1.7500	\$1.7750	\$1.9000	\$1.9000	\$1.9500	\$1.9000
<b>NASS Whey Price</b>												
5-Yr Ave	\$0.3533	\$0.3553	\$0.3665	\$0.3799	\$0.3809	\$0.3913	\$0.3867	\$0.3629	\$0.3346	\$0.3307	\$0.3449	\$0.3556
2010	\$0.3880	\$0.3925	\$0.3761	\$0.3643	\$0.3645	\$0.3688	\$0.3641	\$0.3590	\$0.3615	\$0.3676	\$0.3736	\$0.3789
2011	\$0.3935	\$0.4234	\$0.4578	\$0.4808	\$0.4929	\$0.5233	\$0.5494	\$0.5691	\$0.5926	\$0.6152	\$0.6380	\$0.6500
2012	\$0.6750	\$0.7000	\$0.7250	\$0.7250	\$0.7000	\$0.6750	\$0.6750	\$0.6500	\$0.6500	\$0.6250	\$0.6000	\$0.5750
<b>Class III Milk Prices</b>												
5-Yr Ave	\$14.31	\$13.40	\$13.48	\$13.50	\$13.97	\$15.06	\$14.85	\$14.92	\$15.40	\$15.57	\$15.42	\$15.63
2010	\$14.50	\$14.28	\$12.78	\$12.92	\$13.38	\$13.62	\$13.74	\$15.18	\$16.26	\$16.94	\$15.44	\$13.83
2011	\$13.48	\$17.00	\$19.40	\$16.87	\$16.52	\$19.11	\$21.39	\$21.67	\$19.07	\$18.03	\$19.07	\$18.40
2012	\$17.12	\$17.86	\$17.88	\$17.90	\$18.01	\$18.11	\$18.37	\$18.46	\$19.22	\$19.71	\$19.82	\$19.56
<b>CME Butter Price</b>												
5-Yr Ave	\$1.2582	\$1.2173	\$1.2949	\$1.3353	\$1.3950	\$1.4056	\$1.4416	\$1.5137	\$1.5677	\$1.5654	\$1.5395	\$1.3579
2010	\$1.3950	\$1.3561	\$1.4641	\$1.5460	\$1.5896	\$1.6380	\$1.7787	\$1.9900	\$2.2262	\$2.1895	\$1.9295	\$1.6327
2011	\$2.0345	\$2.0622	\$2.0863	\$1.9970	\$2.0724	\$2.1077	\$2.0443	\$2.0882	\$1.8724	\$1.8295	\$1.7356	\$1.6500
2012	\$1.6000	\$1.6000	\$1.6000	\$1.6500	\$1.7000	\$1.7000	\$1.7500	\$1.7500	\$1.8000	\$1.9000	\$1.9500	\$1.7000
<b>NASS Nonfat Dry Milk Price</b>												
5-Yr Ave	\$1.1126	\$1.0442	\$1.0346	\$1.0938	\$1.1756	\$1.2367	\$1.2646	\$1.2618	\$1.2454	\$1.2315	\$1.2235	\$1.2277
2010	\$1.1929	\$1.0812	\$1.0454	\$1.1208	\$1.2520	\$1.2631	\$1.2277	\$1.1557	\$1.1383	\$1.1674	\$1.1953	\$1.1848
2011	\$1.2530	\$1.3728	\$1.4945	\$1.5680	\$1.6120	\$1.6520	\$1.6159	\$1.5739	\$1.5439	\$1.5109	\$1.4522	\$1.4000
2012	\$1.3250	\$1.3400	\$1.3600	\$1.3800	\$1.4250	\$1.4500	\$1.5000	\$1.5500	\$1.5750	\$1.6000	\$1.6250	\$1.6500
<b>Class IV Milk Prices</b>												
5-Yr Ave	\$12.89	\$12.17	\$12.22	\$12.92	\$13.90	\$14.51	\$14.87	\$15.03	\$15.21	\$15.09	\$14.94	\$14.37
2010	\$12.89	\$12.17	\$12.22	\$12.92	\$13.90	\$14.51	\$14.87	\$15.03	\$15.21	\$15.09	\$14.94	\$14.37
2011	\$16.42	\$18.40	\$19.41	\$19.78	\$20.29	\$21.05	\$20.33	\$20.14	\$19.53	\$18.41	\$17.87	\$16.90
2012	\$16.00	\$16.13	\$16.30	\$16.69	\$17.29	\$17.50	\$18.15	\$18.58	\$19.00	\$19.64	\$20.06	\$19.23



# Summary of internal forecasts

Summary of internal forecasts prepared by five in-house dairy economists and Jerry Dryer

Quarterly Analysis			11/30/2011					
6 of 6 Analysts								
Milk Production	3Q11	4Q11	2H2011	1Q12	2Q12	3Q12	4Q12	2012
High	48,717	48,627	97,344	49,950	51,433	49,522	49,355	200,260
Low	48,717	48,470	97,187	49,091	50,705	48,709	48,931	197,436
Average	48,717	48,531	97,248	49,660	50,986	49,087	49,174	198,906
Block Cheese	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012
High	\$1.9479	\$1.8065	\$1.8772	\$1.7777	\$1.8920	\$1.9287	\$1.9167	\$1.8788
Low	\$1.9479	\$1.7241	\$1.8360	\$1.5667	\$1.5467	\$1.6800	\$1.7400	\$1.6333
Average	\$1.9479	\$1.7595	\$1.8537	\$1.6380	\$1.6581	\$1.7901	\$1.8366	\$1.7307
Butter	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012
High	\$2.0016	\$1.7643	\$1.8830	\$1.7192	\$1.7835	\$1.9083	\$1.8767	\$1.8219
Low	\$2.0016	\$1.6898	\$1.8457	\$1.4333	\$1.5167	\$1.6500	\$1.7083	\$1.5771
Average	\$2.0016	\$1.7282	\$1.8649	\$1.5810	\$1.6332	\$1.7400	\$1.7628	\$1.6793
Nonfat Dry Milk	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012
High	\$1.5779	\$1.4853	\$1.5316	\$1.4177	\$1.4429	\$1.4860	\$1.5500	\$1.4742
Low	\$1.5779	\$1.4478	\$1.5129	\$1.3000	\$1.2667	\$1.3200	\$1.3300	\$1.3042
Average	\$1.5779	\$1.4710	\$1.5244	\$1.3611	\$1.3357	\$1.4024	\$1.4366	\$1.3840
Whey	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012
High	\$0.5704	\$0.6351	\$0.6027	\$0.6733	\$0.6789	\$0.6934	\$0.7081	\$0.6884
Low	\$0.5704	\$0.6251	\$0.5977	\$0.5900	\$0.5200	\$0.4933	\$0.4900	\$0.5233
Average	\$0.5704	\$0.6322	\$0.6013	\$0.6311	\$0.5940	\$0.5724	\$0.5680	\$0.5914
Class III	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012
High	\$20.71	\$18.79	\$19.75	\$18.63	\$19.81	\$20.42	\$20.26	\$19.78
Low	\$20.71	\$18.42	\$19.56	\$16.16	\$15.52	\$16.64	\$17.41	\$16.43
Average	\$20.71	\$18.61	\$19.66	\$17.18	\$16.97	\$18.10	\$18.79	\$17.76
Class IV	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012
High	\$20.00	\$17.96	\$18.98	\$17.17	\$17.78	\$18.59	\$18.45	\$18.00
Low	\$20.00	\$17.55	\$18.77	\$15.51	\$15.15	\$16.25	\$16.67	\$15.89
Average	\$20.00	\$17.74	\$18.87	\$16.18	\$16.20	\$17.22	\$17.66	\$16.82



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