



Milk Marketing

As 472, AVS472 Fall 2020

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Please go to this website

- FMMASEATTLE.COM

Milk Pricing and Markets

- US milk price to dairy producers and end product prices to processors. Supply and demand drive the market.
- There have been and are some gov. policies that affect milk price.
- Today's domestic and global economies affect prices and profitability more today than in recent history. Public preference and perceptions will have impact.

Milk Pricing is Complex

- Perishable product.
- Types of products sold – Fluid, cottage cheese, ice cream, cheese, butter, nonfat dried milk.
- Consumption patterns – 3.5% fluid ↓
1% fluid ↑↑
Cheese ↑↑
- Supply/Demand – season, cow#s, production increases.



Cow #s in the US

- 1961 - 18 million
- 1969 - 13 million
- 1977 - 11 million
- 1985 - 11 million
- 1993 - 9.5million
- 2001 - 9.1million
- 2015 - 8.7 million
- 2019- 9.1 million



- Increase in production / cow
 - 1950 – ave prod. Per cow = 5,000 lbs/cow/yr.
 - 2019- >21,000 lbs/cow/yr*

How is Milk Utilized ?

- Fluid Products 35%
- Manufactured Prod. 65%
 - Cheese 50%
 - Butter 23%
 - Ice Cream 14%
 - Other 13%

History of Milk Marketing

- **The Great Depression**
- **1933 Agriculture Adjustment Act**
- **Price Support system- Commodity Credit Corporation**
- **1937 Federal Milk Marketing Orders**
- **Late 70s early 80s Supply Control**
 - **Decrease Price support**
 - **Dairy Diversion Program- 1983 - paid \$10 for milk not produced**
 - **Dairy Research and Promotion \$.15 check-off 1984**
 - **Dairy Termination Program- 1986 - decrease 3 million cows- export or cull - paid up to \$22.50/cwt. For milk not produced. Could not have dairy cattle on the property for 5 yrs.**
 - **Milk Loss Payment 2002 MILC payment**

2003 Cooperatives Working

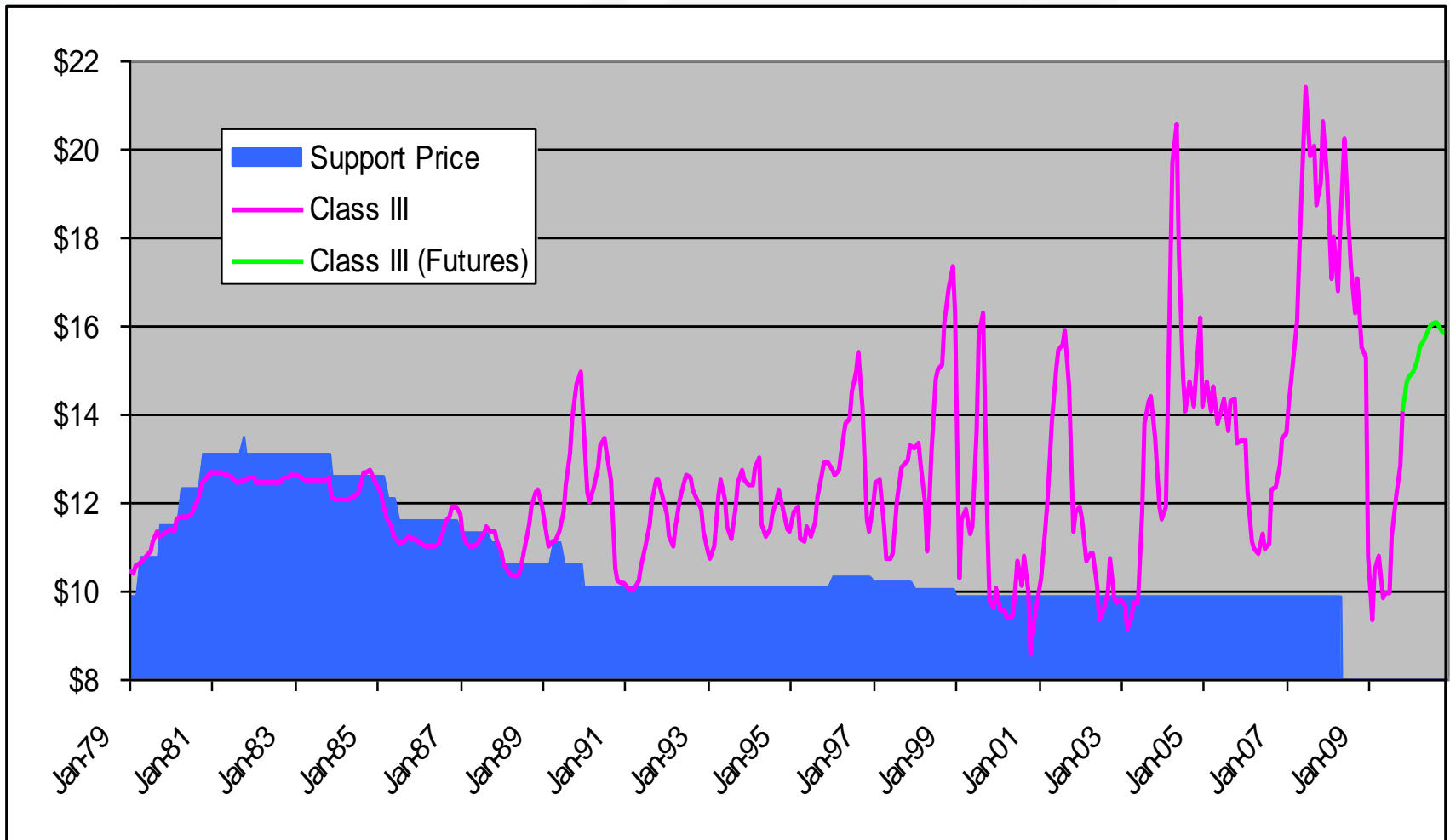
Together (CWT) \$.05 voluntary checkoff

- Herd Reduction
- Adjust End Product production to take advantage of market prices.
- Export Assistance

Milk Price Supports

- Commodity Credit Corporation- purchased cheese, butter and nonfat dried milk to create demand, reduce supply in order to maintain a minimum price to producers.
- Milk price support values
 - **1983- \$13.10/cwt**
 - **1985- \$11.60/cwt**
 - **1990- \$10.10**
 - **2009- \$9.80**
 - **Today-Discontinued under the 2014 Farm Bill**

Class III vs. Support Price 1979 to 2010



Grades of Milk

- **Grade A**
- **Federal sanitation standards - Pasteurized Milk Ordinance(PMO).**
 - **Standards regulated by State Dept. of Ag. Or State Dept. of Health (inspections 1-6x per year).**
 - **State regulations must meet PMO or stricter (700,000 scc).**
 - **Price determined by the Federal Milk Marketing Order.**

Classes of milk

- Class I - Fluid
- Class II - Ice Cream, Cottage Cheese
- Class III - Cheese
- Class IV - Non Fat Dried Milk, butter

Retail Pricing of Milk

- Retail marketers operate on a Gross Margin Pricing system.
- Milk is an *inelastic demand* product.
 - **The consumer will purchase the product at a wide range of cost.**
- Retailers respond if there is a loss of the market share or decrease in unit sales.

Federal Milk Marketing Orders

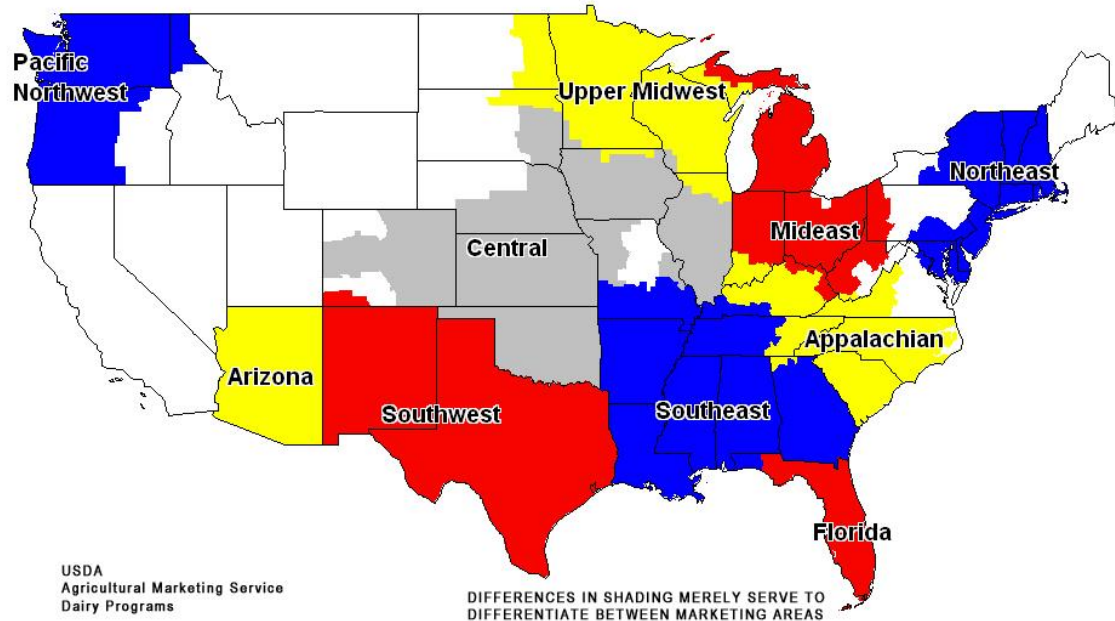
- A FMMO is a legal document issued to regulate the minimum prices paid to dairy farmers by handlers of grade A milk in a specific geographic marketing area.
- Under the direction of USDA, Agricultural Marketing Service and administered by 10 FMMO administrators.
- About 65% of the nations milk regulated by FMMOs.

10 FMMO Areas-Map

1. **Pacific Northwest**
2. **Arizona-Las Vegas**
3. **Southwest**
4. **Central**
5. **Upper Midwest**
6. **Southeast**
7. **Mideast**
8. **Florida**
9. **Appalachian**
10. **North East**

FO's as of May 2006

Federal Milk Marketing Order Areas



Objectives of the FMMO

1. Promote orderly marketing.
2. Improve income situation of Grade A producers.
3. Supervise transactions between producer and handler.
4. Assure consumers adequate supply of milk at a reasonable prices.

How objectives are obtained

1. Establish minimum prices handlers are to pay and at a level that will insure a sufficient quantity of Grade A Milk.
2. Value of milk as utilized by handler is equitably distributed among Grade A producers.
3. Audit handlers books and records.
4. Release of market information to the public.

What FMMOs Cannot Do

1. Set wholesale or retail prices.
2. Set maximum prices to handlers
3. Establish sanitary or quality standards.
4. Regulate producers.
5. Guarantee producers a market.
6. Guarantee fixed level of prices to producers.
7. Regulate from whom handlers buy or sell milk.
8. Be used as a means to restrict production.

Federal Order Reform- Jan.2000

- Prior to January 2000 Basic Formula Pricing (M-W Price).
 - Class III cheese price for all FOs determined by the Class III price in Eau Claire Wisconsin.
 - Class III price increased as miles from Eau Claire increased.
 - 37 FMMOs at that time.
 - Butter Fat Differential.

Current Federal Order System

- Classified Pricing
 - Class II, III and IV set by survey of National Agricultural Statistical Services (**NASS**).
 - Prices set by surveys of amount of manufactured product output and marketing's nation wide, two times per month.

Marketwide pooling Statistical Uniform Price

- The total value of the milk in all classes in a market is divided by the total milk deliveries to determine a blend price for the market.
 - **Class I 30% \$18.50 = \$5.55**
 - **Class II 10% \$16.10 = \$1.61**
 - **Class III 30% \$17.30 = \$5.19**
 - **Class IV 30% \$11.50 = \$3.45**
 - **Federal Order Blend Price = \$15.80**

Blend Prices in the past 15 years

- Pacific Northwest \$10.94/cwt (\$25.15)
- Western \$10.38/cwt (\$24.10)
- Arizona-Las Vegas \$11.01/cwt (\$25.13)
- Florida \$13.48/cwt (\$31.21)

Risk Management -Forward Contracting

- **CME offers producers the opportunity to determine in advance a price for a portion of their sales.**
 - **The handler offers Class III prices daily (Chicago Mercantile Exchange).**
 - **Producer submits a bid for the portion and time period of the proposed offer.**
 - **Handler can accept or reject the bid.**
 - **If accepted, the producer forfeits federal order minimum requirements.**

Forward Contracting cont.

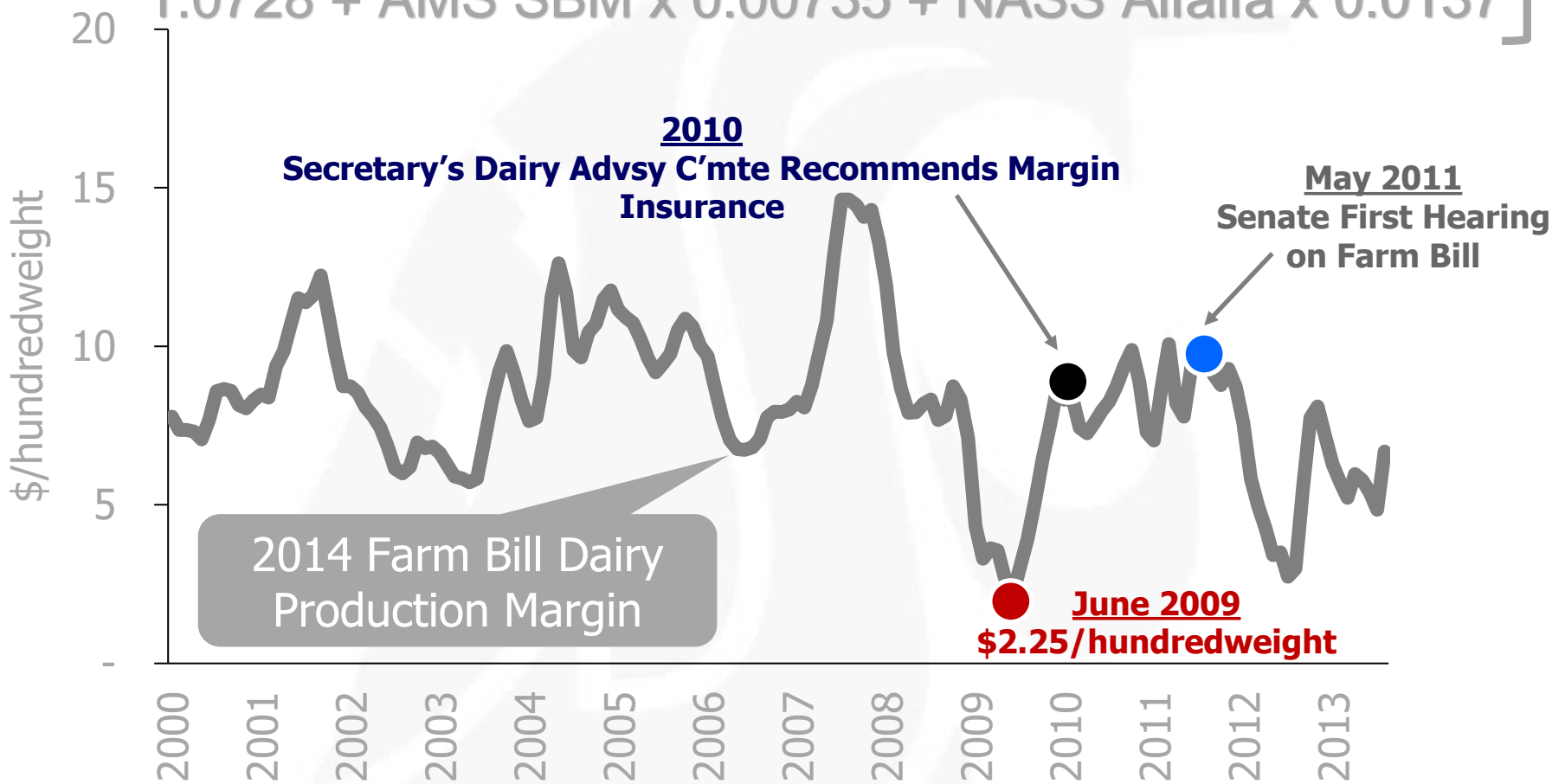
- Current NDA system.
 - Contract 12 months in advance
 - Contract in 10,000lb increments
 - Contract up to 100% of prior months production.

MPP-Dairy: Dairy Margin Coverage

- Voluntary program designed to protect dairymen from downturns in the dairy margin
 - Makes payments when US dairy margin falls below the farmer-selected coverage option
 - Price floors available from \$4 to \$8 hundredweight
 - Can cover 25% to 90% of production
 - Farm operators pay \$100 administrative fee and premiums based on farmer-selected coverage
 - Consecutive 2-month average margins determine indemnity: Jan/Feb, ..., Nov/Dec
 - No eligibility constraints (income or production)

U.S. Income Over Feed Costs

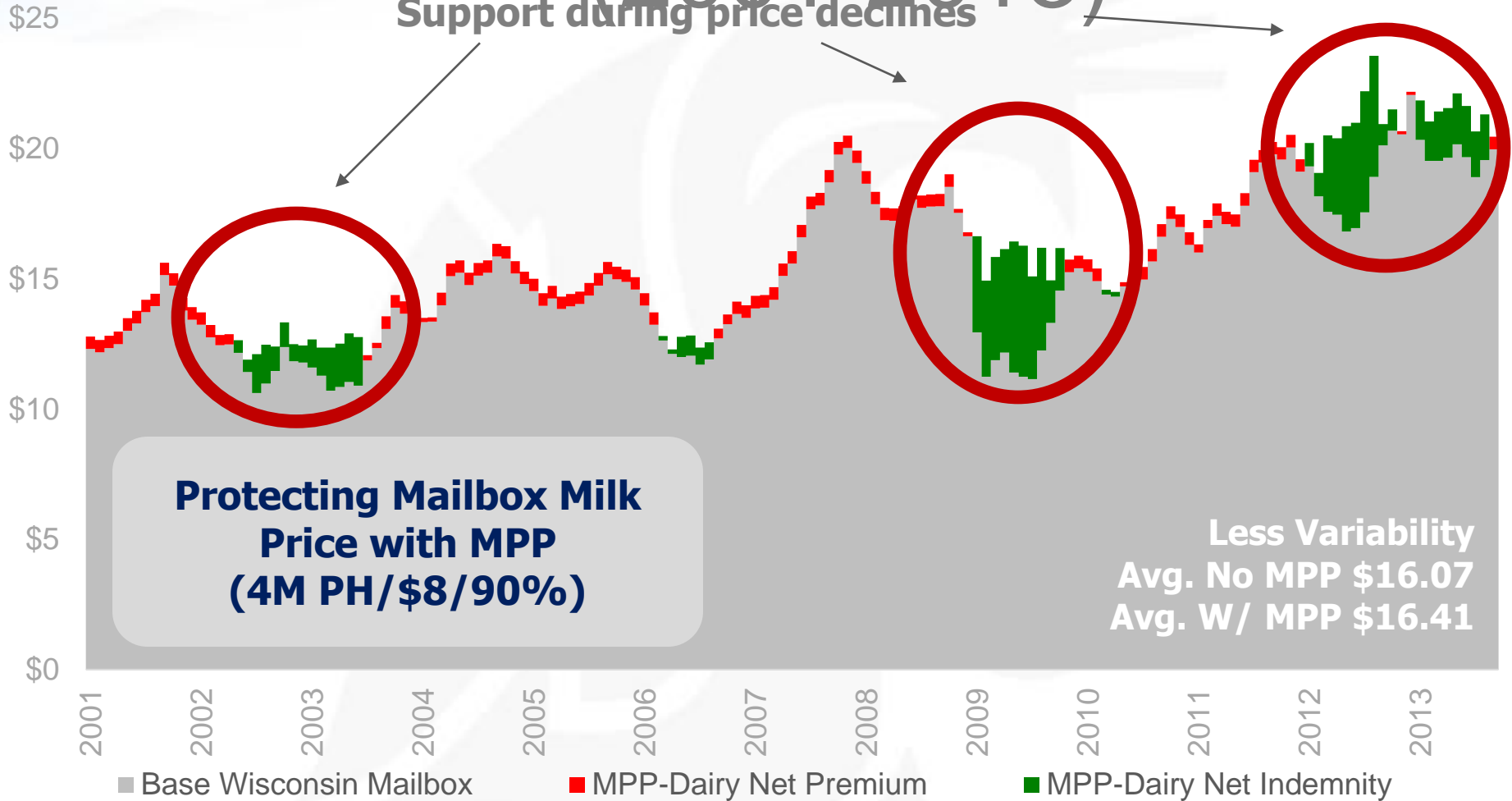
$$\text{Margin} \equiv \text{U.S. All-Milk Price} - [\text{NASS Corn Price} \times 1.0728 + \text{AMS SBM} \times 0.00735 + \text{NASS Alfalfa} \times 0.0137]$$



Protecting With MPP

(2001-2013)

Support during price declines



MPP: “Skin in the Game”

- MPP can provide revenue support during single- or multi-year losses in farm equity
 - Passive strategy may not work for all dairymen
 - Dynamic strategies can be creative (may involve alternating coverage choices annually)
- Can be integrated with futures/options and forward to improve risk management at farm
 - What level of integration is best?
- Goal to shift dairymen into new era (“Skin in the Game”)
 - MPP is uncoupled from market supply and demand fundamentals to increase ease of use (i.e. fixed premiums and coverage levels).

Supply Management

- Supply/Demand driven market
- Reduction in Price Support, CCC Purchases- (Done)
- Dairy Diversion ,Buy Out Programs(CWT)
- Export Potential- !!!!!
- National Advertising-!!!!!! (Check off)
- New Product Technology
- Margin Insurance with production limits

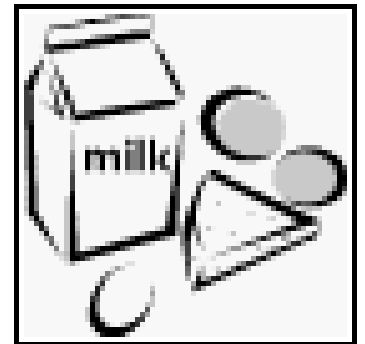
Canadian Dairy Industry

- 2017-2018 dairy year there were 1.137 million milk cows in Canada on 18'227 dairy farms.
- Average dairy farm size is 61 cows
- 2017 total net farm cash receipts stood at 4.2 billion dollars
- Canadian dairy farmers receive zero dollars in subsidies (as of Feb 1st 2002)

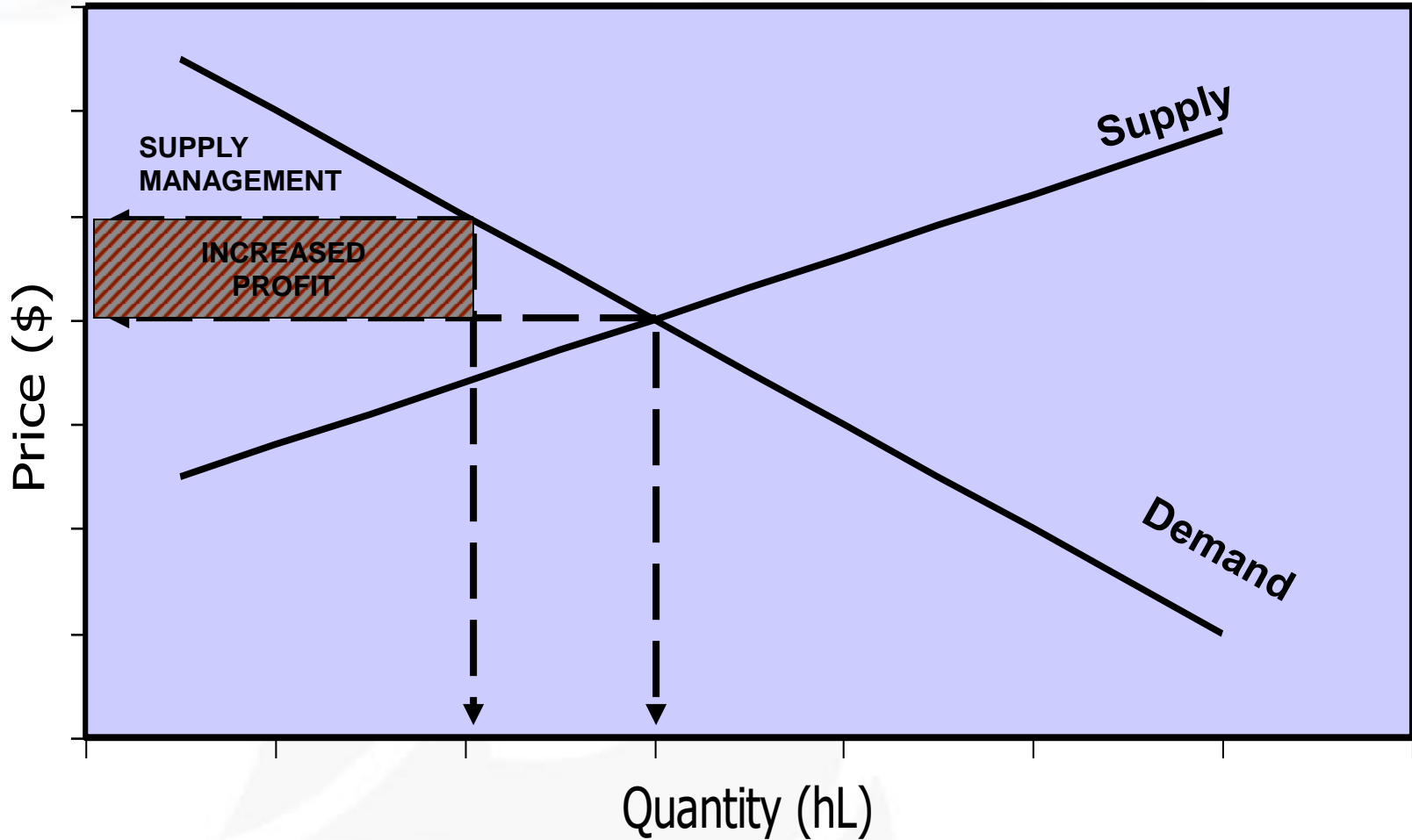


Origin of Supply Management

- Established in the early 1970's to address the unstable markets, uncertain supplies, and highly variable returns to producers and processors which were common during the 1950's and 1960's



Economic Effects of Supply Management



Quota

- Quota is an Asset of the Crown
- Quota can be traded, at market value, through the provincial marketing boards
- Quota can be leased from any producer who wishes to lease out extra quota
- Quota represents the largest single capital investment that a Canadian dairy farmer has to purchase to take part in dairy farming in Canada

Advantages To Supply Management

- Producers receive a constant price for their milk that allows them to generate a reasonable profit
- There is not an over supply of milk into the domestic market, therefore dumping skim milk powder into other markets is not required

Disadvantages to Supply Management

- It costs \$15'000-24'000 us/cow for quota ...the right to ship a cow's milk annually
- It creates a barrier to entry into the industry
- It does not support competition
- It limits the ability for a dairy farmer to vertically integrate the farm and process the milk that the farm produces
- Capital cost inhibits rapid growth. The smaller scale could create challenges in the future if the supply management system is forced out of Canada