Mechanics of the USDA Margin Insurance Proposed in the Farm Bill

Dr. Scott Brown
Agricultural Markets and Policy
Division of Applied Social Sciences

http://web.missouri.edu/~browndo
A Different Form of Risk Protection Coming?

- Farm bill alternatives still being debated
- Dairy margin protection has been front and center
- Much discussion around the market stabilization component
- Margin protection is VERY different than other market-based risk management tools
- It is time for producers to think about their use of the program
  - How good of a risk reduction tool is it on your operation?
  - Can it be used with other market risk reduction tools?
Margin Protection (Milk Price Less Feed Costs) Has Been The Focus

- The combination of high feed costs and price volatility has led the discussion of margin protection.
- Protecting margins instead of just milk prices helps on government outlays because milk prices and feed costs are correlated.
- This margin is what producers have available to pay for all other costs besides feed costs.
- There has been inflation in these other costs over time.
- Producer response to margin risk reduction.
National Program Margin Calculation

- **All Milk Price less Feed Cost**

  The average cost of feed for a dairy operation required to produce a Cwt. of milk, determined in accordance with the following formula: 
  \[
  1.0728 \times \text{price of corn/bu.} + 0.00735 \times \text{price of soybean meal/ton} + 0.0137 \times \text{price of alfalfa hay/ton}.
  \]
Monthly U.S. All Milk Prices

$ per cwt

1997 1999 2001 2003 2005 2007 2009 2011 2013
Dairy Industry Facing Milk Price and Margin Volatility

$ per cwt

U.S. All Milk Price — DSA Margin

College of Agriculture,
Food and Natural Resources
Dairy Industry Facing Milk Price and Margin Volatility

![Graph showing U.S. All Milk Price and DSA Margin from 1997 to 2013](image)

- **U.S. All Milk Price**
- **DSA Margin**
How Does Your Operation’s Margin Compare to the U.S. Margin?
Senate Dairy Provisions

- Producer participation is voluntary

- Dairy Producer Margin Protection Program (DPMPP)
  - **Base Program** – 80% historical base, margin < $4 triggers payments
  - **Supplemental Program** – Producer can buy-up margin coverage, up to $8 coverage, lower premiums for the first 4 million pounds, *supplemental base adjusts*, 25 to 90% annual coverage choice

- Dairy Market Stabilization Program (DMSP)
  - Producer milk marketings capped when margins < $6
  - U.S. to world price triggers kick out the program

- Annual registration fee
How does the Dairy Market Stabilization Program work?

- **$6 for 2 consecutive months**
  - Producers paid for 98% of their base milk marketings
  - Maximum reduction is 6% of current milk marketings

- **$5 for 2 consecutive months**
  - Producers paid for 97% of their base milk marketings
  - Maximum reduction is 7% of current milk marketings

- **$4 for 1 month**
  - Producers paid for 96% of their base milk marketings
  - Maximum reduction is 8% of current milk marketings
House Dairy Provisions

- Producer participation is voluntary
- Dairy Producer Margin Protection Program (DPMPP)
  - Producer can buy-up margin coverage, up to $8 coverage, lower premiums for the first 4 million pounds, base adjusts, 25 to 80% annual coverage choice
There Are Different Premiums For Each Coverage Level

<table>
<thead>
<tr>
<th>Coverage Level</th>
<th>Senate Bill</th>
<th>House Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First 4 million lbs</td>
<td>Above 4 million lbs</td>
</tr>
<tr>
<td>$4.00</td>
<td>$0.000</td>
<td>$0.000</td>
</tr>
<tr>
<td>$4.50</td>
<td>$0.010</td>
<td>$0.020</td>
</tr>
<tr>
<td>$5.00</td>
<td>$0.020</td>
<td>$0.040</td>
</tr>
<tr>
<td>$5.50</td>
<td>$0.035</td>
<td>$0.100</td>
</tr>
<tr>
<td>$6.00</td>
<td>$0.045</td>
<td>$0.150</td>
</tr>
<tr>
<td>$6.50</td>
<td>$0.090</td>
<td>$0.290</td>
</tr>
<tr>
<td>$7.00</td>
<td>$0.400</td>
<td>$0.620</td>
</tr>
<tr>
<td>$7.50</td>
<td>$0.600</td>
<td>$0.830</td>
</tr>
<tr>
<td>$8.00</td>
<td>$0.950</td>
<td>$1.060</td>
</tr>
</tbody>
</table>
First decision: Does the producer participate?

If yes, then this farm has two choices regarding supplemental coverage:

1) Level of coverage 0%, 25% to 90%
2) Allow for growth in marketings
Farm Example – Senate Margin Insurance

- **Historical Marketings**
  - 2,000,000 pounds

- **Base Program**
  - 1,600,000 pounds

- **Supplemental Program**
  - 0 to 1,800,000 pounds

- **Year (N-1) Marketings**
  - 3,000,000 pounds

- **Base Program**
  - 1,600,000 pounds

- **Supplemental Program**
  - 0 to 2,700,000 pounds
Other Details

- You need to sign up for the life of the farm bill
- You need to pick a coverage level at the beginning of each year
- Remember, you can use other risk management tools with this type of program
  - Futures market
  - Forward contract
You Could Pick $6.50 Coverage
You Could Pick $8.00 Coverage
Should This Producer Sign Up? Horner Example

$ per cwt

2006 2008 2010 2012

Farmer Horner DSA Margin

College of Agriculture, Food and Natural Resources
Should This Producer Sign Up? Horner Example

$ per cwt

$ per cwt

2006 2008 2010 2012

Horner with payment Farmer Horner
Should This Producer Sign Up? Brown Example

![Graph showing the comparison between Farmer Brown and DSA Margin from 2006 to 2012. The graph plots the price per cwt (cents per hundredweight) over time.]
Should This Producer Sign Up? Brown Example

![Graph showing the price per cwt of Brown with payment and Farmer Brown from 2006 to 2012. The graph indicates the fluctuations in price and the impact of a payment on the producer's profitability.](image-url)
You Must Factor In Other Producers’ Response

- **Senate version**
  - If sign up is large, market stabilization could play a big role and could make it more attractive to stay out
  - If sign up is small, market stabilization could play a smaller role making sign up for margin insurance important

- **House version**
  - If sign up is large then sign up is more important because margin insurance payments prolongs low market prices
  - If sign up is small then opting out carries less risk of long low market outcomes

- **Signup for the life of the farm bill**
Summary

- Still early in the process in determining exactly how these programs would be passed and implemented
- USDA would have to issue rules once the farm bill is passed
- Expect calculators from academics to be available for you to help with the choice
- Do not expect the next five years to be like the 2009 to 2013 period