Many different policy tools have been used in the U.S. dairy industry

- **Price supports** – have been used to create market price floors
- **Direct payments** - partially moderate the effect of low milk prices on producers
- **Assessments** – economic incentive to curb production growth
- **Supply reduction** – direct approach to curb production growth
- **Orders** – allow milk uses to be valued differently, orderly marketing
Adequate dairy safety net with limited outlays

Source: Congressional Budget Office, Jan 2019 Baseline
Adequate dairy safety net with limited outlays

Source: Congressional Budget Office, Jan 2019 Baseline
Milk Income Loss Contract (MILC) program

- Started with the 2002 farm bill
- Production eligible for the program capped
  - 2002 farm bill – 2.4 million pounds
  - 2008 farm bill – 2.985 million pounds, reverting back to 2.4 million pounds on 10/1/2012
- Payment Rate = 0.45 * (Feed cost adjuster * $16.94 – Boston Class I price)
- Feed cost adjuster = 1 + max(0,(0.45 * (DRV – 7.35)/7.35))
- Extends period of low prices
MILC eligibility, 2.4 million pound cap

Any cap results in a smaller percentage of milk becoming eligible for the program over time. Caps made MILC a small versus large issue.
Margin Protection Program (MPP)

- Originated from NMPF’s “Foundation for the Future” program

- All Milk Price less Feed Cost
  - Feed cost: \[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}].
  - Milk, corn and alfalfa prices reported in Agricultural Prices; soybean meal price is Central Illinois, USDA/AMS

- Bi-monthly payments

- Choice of coverage quantities and margin levels
A new margin approach: producer premiums and flexible coverage
# MPP premiums under the 2014 farm bill

<table>
<thead>
<tr>
<th>Coverage Level</th>
<th>Tier 1 Premium per cwt for 2016-2018 for covered production history at 4 mil lbs or less</th>
<th>Tier 2 Premium per cwt, all years for covered production history over 4 mil lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.00</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>$4.50</td>
<td>$0.010</td>
<td>$0.020</td>
</tr>
<tr>
<td>$5.00</td>
<td>$0.025</td>
<td>$0.040</td>
</tr>
<tr>
<td>$5.50</td>
<td>$0.040</td>
<td>$0.100</td>
</tr>
<tr>
<td>$6.00</td>
<td>$0.055</td>
<td>$0.155</td>
</tr>
<tr>
<td>$6.50</td>
<td>$0.090</td>
<td>$0.290</td>
</tr>
<tr>
<td>$7.00</td>
<td>$0.217</td>
<td>$0.830</td>
</tr>
<tr>
<td>$7.50</td>
<td>$0.300</td>
<td>$1.060</td>
</tr>
<tr>
<td>$8.00</td>
<td>$0.475</td>
<td>$1.360</td>
</tr>
</tbody>
</table>

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MPP margin: low margins during the 2014 farm bill debate

Dollars per hundredweight

## Program comparison

<table>
<thead>
<tr>
<th></th>
<th>MPP</th>
<th>MILC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage Level</strong></td>
<td>Pick $4 to $8 in $0.50 increments</td>
<td>Feed Adjusted $16.94 minus Boston Class I</td>
</tr>
<tr>
<td><strong>Coverage Quantity</strong></td>
<td>Pick 25% to 90% in 5% increments</td>
<td>34% or 45% applied to price difference above</td>
</tr>
<tr>
<td><strong>Payments</strong></td>
<td>Production history adjusted by US milk production growth</td>
<td>Capped – 2.985 million pounds or 2.4 million pounds</td>
</tr>
<tr>
<td><strong>Premiums</strong></td>
<td>Depends on coverage level</td>
<td>None</td>
</tr>
</tbody>
</table>
U.S. MPP production history

![Bar graph showing the production of MPP (Million Pounds) over years 2015, 2016, and 2017. The X-axis represents the price range from $4.00 to $8.00 in billion pounds, while the Y-axis indicates the number of pounds produced. The graph indicates significant production in 2015, with lesser production in 2016 and 2017.]
### 2018 MPP premiums

<table>
<thead>
<tr>
<th>Coverage Level (Margin) per cwt.</th>
<th>Tier 1 Premium for 2018</th>
<th>Tier 2 Premium for 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covered production history less than five million lbs.</td>
<td>Covered production history greater than five million lbs.</td>
<td></td>
</tr>
<tr>
<td>$4.00</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>$4.50</td>
<td>None</td>
<td>$0.020</td>
</tr>
<tr>
<td>$5.00</td>
<td>None</td>
<td>$0.040</td>
</tr>
<tr>
<td>$5.50</td>
<td>$0.009</td>
<td>$0.100</td>
</tr>
<tr>
<td>$6.00</td>
<td>$0.016</td>
<td>$0.155</td>
</tr>
<tr>
<td>$6.50</td>
<td>$0.040</td>
<td>$0.290</td>
</tr>
<tr>
<td>$7.00</td>
<td>$0.063</td>
<td>$0.830</td>
</tr>
<tr>
<td>$7.50</td>
<td>$0.087</td>
<td>$1.060</td>
</tr>
<tr>
<td>$8.00</td>
<td>$0.142</td>
<td>$1.360</td>
</tr>
</tbody>
</table>
2018 farm bill, Dairy Margin Coverage (DMC)

- New margin coverage levels up to $9.50 on the first 5 million pounds
- Production history coverage is 5% to 95%
- Lower premiums
- Reimbursement program for past premiums paid less indemnity payments
- These changes provide a much stronger safety net on the first 5 million pounds of production history
- Milk Donation Program
- Removal of the “higher of” for class I mover to “average + $0.74”
### 2018 farm bill, lower DMC premiums

<table>
<thead>
<tr>
<th>Coverage</th>
<th>&lt; 5 Mill. Lbs.</th>
<th>&gt; 5 Mill. Lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.00</td>
<td>$0.0000</td>
<td>$0.0000</td>
</tr>
<tr>
<td>$4.50</td>
<td>$0.0025</td>
<td>$0.0025</td>
</tr>
<tr>
<td>$5.00</td>
<td>$0.0050</td>
<td>$0.0050</td>
</tr>
<tr>
<td>$5.50</td>
<td>$0.0300</td>
<td>$0.1000</td>
</tr>
<tr>
<td>$6.00</td>
<td>$0.0500</td>
<td>$0.3100</td>
</tr>
<tr>
<td>$6.50</td>
<td>$0.0700</td>
<td>$0.6500</td>
</tr>
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<td>$0.0800</td>
<td>$1.1070</td>
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<td>$7.50</td>
<td>$0.0900</td>
<td>$1.4130</td>
</tr>
<tr>
<td>$8.00</td>
<td>$0.1000</td>
<td>$1.8130</td>
</tr>
<tr>
<td>$8.50</td>
<td>$0.1050</td>
<td>n/a</td>
</tr>
<tr>
<td>$9.00</td>
<td>$0.1100</td>
<td>n/a</td>
</tr>
<tr>
<td>$9.50</td>
<td>$0.1500</td>
<td>n/a</td>
</tr>
</tbody>
</table>
The 43-70 difference is important
Annual DMC margin
All milk price
DMC payments at $4.00 coverage

- 2019: $0.14
- 2020: $0.39
- 2021: $0.36
- 2022: $0.21
- 2023: $0.12
- 2024: $0.10
- 2025: $0.10
- 2026: $0.09
- 2027: $0.13
- 2028: $0.08

Graph showing per cwt of coverage from 2019 to 2028.
DMC payments at $9.50 coverage

<table>
<thead>
<tr>
<th>Year</th>
<th>10th percentile</th>
<th>Average</th>
<th>90th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$0.00</td>
<td>$2.16</td>
<td>$5.07</td>
</tr>
<tr>
<td>2020</td>
<td>$0.00</td>
<td>$2.16</td>
<td>$5.20</td>
</tr>
<tr>
<td>2021</td>
<td>$0.00</td>
<td>$1.81</td>
<td>$4.50</td>
</tr>
<tr>
<td>2022</td>
<td>$0.00</td>
<td>$1.68</td>
<td>$4.65</td>
</tr>
<tr>
<td>2023</td>
<td>$0.00</td>
<td>$1.50</td>
<td>$4.17</td>
</tr>
<tr>
<td>2024</td>
<td>$0.00</td>
<td>$1.39</td>
<td>$3.94</td>
</tr>
<tr>
<td>2025</td>
<td>$0.00</td>
<td>$1.45</td>
<td>$4.27</td>
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<tr>
<td>2026</td>
<td>$0.00</td>
<td>$1.39</td>
<td>$4.18</td>
</tr>
<tr>
<td>2027</td>
<td>$0.00</td>
<td>$1.48</td>
<td>$4.76</td>
</tr>
<tr>
<td>2028</td>
<td>$0.00</td>
<td>$1.32</td>
<td>$3.85</td>
</tr>
</tbody>
</table>
Example farms

100 Cow Operation

$600,000
$500,000
$400,000
$300,000
$200,000
$100,000

$4.00 Coverage

$9.00 Coverage

$9.50 Coverage

90th Ave 10th 90th Ave 10th 90th Ave 10th

Market Receipts
Program Payments

College of Agriculture,
Food and Natural Resources
Example farms

1000 Cow Operation

$4.00 Coverage
$9.00 Coverage
$9.50 Coverage

Market Receipts
Program Payments
Potential issues

- **Supply response too great?**
  - Maximum of 30% of milk eligible
  - Supply inducing – aggregate versus individual response

- **Government cost**
  - Low margin periods could equate to billions of dollars
  - High margin periods – premiums paid with no program payments

- **Formula issues?**
  - Feed coefficients - drought
  - What unfolds that isn’t captured by the formula or national prices used
Questions

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