Global Policies and Risk Management

Bruce A. Babcock
Center for Agricultural and Rural Development
www.card.iastate.edu
Overview of Talk

• Review status of WTO talks
  – Framework agreement
  – WTO cotton ruling
• Review proposal to make U.S. farm programs more acceptable to WTO
• Another perspective on outlook for corn supply/demand balance
• Review crop insurance outlook for 2005 and 2006
Status of WTO Negotiations

• Late July agreement keeps negotiations going
• Old agreement:
  – Amber box expenditures capped at $19.1 billion in support (LDPs, MLAs, CCPs, tariff support)
  – No limit on blue box (old deficiency payment or green box (AMTA, DPs)

What are the benefits of an agreement?
U.S. Broiler and Turkey Exports 1960:2004

Year

Thousand tons (CWE)
U.S. Beef and Veal Exports 1960:2004
New Framework Agreement

• Highlights include:
  – “Boxes” are kept
  – New definition for the blue box
  – 20% cut in support as a “downpayment”
  – Further future cuts as negotiated
CCPs to the Blue Box

- CCPs plus LDPs could exceed amber box limits
- US negotiated CCPs into the limited blue box.
- Previous loopholes will be tightened a bit, but overall we have an increase in flexibility
- Likely that US can negotiate “cuts” without having to cut anything.
Cotton Finding is the Wild Card

- Brazil brought a complaint about US cotton subsidies to the WTO panel.
- Old WTO agreement held countries harmless if
  - amber box spending was below the cap, and
  - Crop specific spending was below the base period spending (peace clause)
- WTO panel ruled that cotton spending exceeded the base period, and
Brazilian cotton producers were harmed by U.S. subsidies

- Export subsidies (step 2) should be immediately ended
- LDPs lowered world prices, causing harm to Brazilian cotton farmers
- AMTA and DPs “do not fully conform” to Green Box guidelines because of restrictions on fruit and vegetable production.
Will Cuts be Necessary?

- The 20% “down payment” can be made without affecting anything
- Subsequent cuts may lead to some program adjustment
- But added flexibility in the framework should lead to minimal required changes.
How the U.S. Met Its AMS Limits

Year

AMS Before De Minimis
De Minimis Reductions
Actual AMS
Outlook

• US and EU will not have to make many changes
• Why should we expect importing countries to change?
• Grand deal is for US and EU to cut domestic support in return to market access
An Alternative Path

• Marketing loan program the worst offender in the US.

• EU and others view the CCP more favorably because they are based on a fixed amount of production.
  – CCPs are decoupled from production levels so they should not influence production decisions at the margin.
An Alternative Path

• LDPs pay out when price is below the loan rate
• CCPs pay out when price is below the effective target price.
• Why not replace LDPs with CCPs?
  – US would then be in a leadership position rather than a defensive position with regards to domestic support
  – What would be impact on farmers?
What would payments have been to Iowa corn farmers?
What would payments have been to Iowa corn farmers?

<table>
<thead>
<tr>
<th>Year</th>
<th>2002 Farm Bill Provisions</th>
<th>CCP only</th>
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</thead>
<tbody>
<tr>
<td>1999</td>
<td>$1,050 million</td>
<td>$750 million</td>
</tr>
<tr>
<td>2000</td>
<td>$1,100 million</td>
<td>$700 million</td>
</tr>
<tr>
<td>2001</td>
<td>$900 million</td>
<td>$600 million</td>
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</table>
Distribution of Total Revenue Less Variable Costs from Corn for a Land Owner
Distribution of Total Revenue Less Variable Costs from Corn for a Land Owner

Market Returns
RA-HPO
Distribution of Total Revenue Less Variable Costs from Corn for a Land Owner

-150 -110 -70 -30 10 50 90 130 170 210 250 290 330 370 410 450

$ per acre

probability

RA-HPO
DP+CCP+LDP
Distribution of Total Revenue Less Variable Costs from Corn for a Land Owner

$ per acre

probability

DP+CCP+LDP
DP+Enhanced CCP
Will we run out of corn?

• Depends on
  – Trend yields of corn and soybeans
  – Weather patterns
  – Growth in meat exports, ethanol use and per-capita meat consumption

***Increased demand causes increased supply***
U.S. Corn Yields per Planted Acre

$y = 1.7902x - 3457.9$
Iowa Corn and Soybean Yields per Planted Acre Since 1980

Year

bu/ac

55% growth

25% growth
Ratio of Corn to Soybean Acres in Iowa

Year


Ratio

1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0

Year
U.S. Corn Yields per Planted Acre

bu/ac

Year

1940 1960 1980 2000 2020 2040
Cumulative Probability Distribution of U.S. Corn Production for 2005
Expected Production = 10.45 bbu
Cumulative Probability Distribution of U.S. Corn Production for 2005
Expected Production = 10.45 bbu
Cumulative Probability Distribution of U.S. Corn Production for 2024
Expected Production = 13.4 bbu

Billion bushels

Probability

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

9 10 11 12 13 14 15 16

Probability

Billion bushels
Iowa Corn Acres by Insurance Plan and Coverage Level
GRIP and GRIP-HRO

- GRIP guarantee = 
  Factor*CBOT Springtime Price*Expected County Yield

- GRIP-HRO guarantee = 
  Factor*CBOT Fall or Spring Price*Expected County Yield

Factor lies between 0.6 and 1.5.
Who Should Buy GRIP?

- Farmers who do not have a representative APH yield
- Farmers who are lower risk than that assumed in APH program
- Farmers with yields that are highly correlated with county yields
GRIP and GRIP-HRO in Iowa County (Expected Yield = 148 bu/ac)

<table>
<thead>
<tr>
<th></th>
<th>Maximum Coverage Per-Acre</th>
<th>Total Premium</th>
<th>Producer Premium</th>
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</thead>
<tbody>
<tr>
<td>GRIP</td>
<td>533.16</td>
<td>31.08</td>
<td>13.99</td>
</tr>
<tr>
<td>GRIP-HRO</td>
<td>533.16</td>
<td>46.22</td>
<td>20.80</td>
</tr>
</tbody>
</table>
NASS yields and trend for Iowa County, Iowa

bu/ac

Year

When Would Have GRP Paid Out in Iowa County?
(Yields Adjusted to a 2005 Technology Basis)
Historical Payouts from GRIP and GRIP-HRO

$/acre


GRIP

GRIP-HRO
Payoff from GRIP and GRIP-HRO

• Total payout = 6.7% of liability for GRIP and 9.2% of liability for HRO from 1975 to 2003.

• Premium rate = 5.83% of liability from GRIP and 8.67% of liability from GRIP-HRO.

• Since 1975, rate of return = 15% for GRIP and 6.6% for HRO.
Subsidized rate of return for GRIP and GRIP-HRO

- Producer premium rate = 2.6% and 3.9%.
- 2005 Premium = $14/acre for GRIP and $21 for GRIP-HRO
- Historical payback = $36 and $49.
- Rater’s expected payback = $31 and $46.
- Expected return = $22 or $17 per acre for GRIP, $18 or $15 per acre for HRO.
What about RA?

- Long-run loss ratio in Iowa about 0.70 for individual coverage.
- Premium subsidy rate = 55%.
- Thus for every $100 in producer premium, farmers should expect to receive back about $155.
- Or for a $12 per acre premium, expected return = $18.60 or $6.60 per acre.
- For every $100 in premium for GRIP, should expect to get back $122 or $17 per acre. for full coverage.
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