# Farm Savings Account

An Introduction
Cornell University
Applied Economics and Management

# 9 Farms: All with 400-600 Cows in 2001

- By 2010, the farms' herd sizes ranged from 550 cows to 2,483
- This raised several questions
  - How did this disparity come about?
  - Can we categorize these different farms into groups?
  - Which farms could most benefit from a FSA?
  - How could they benefit from a FSA?

# 3 Different Groups

- No Growth Farms
  - Between 0 and 20% growth in herd size, minimal use of debt (Green)
- Moderate Growth Farms
  - 40-50% increase in herd size (Orange)
- Large Growth Farms
  - Take out a large loan and increase herd size 100% or more (Red)

# Who Can Benefit from using an FSA?

- Those looking for an investment opportunity
  - A more complicated process to examine, will do at a later point
- Those who are looking to avoid taxes, maybe use it as a retirement account
  - Not a desired outcome from a policy standpoint
- **Those who need a flexible risk-mitigation tool**
  - Our focus today

# Risk Management

- A comparison:
- Farm 3
  - With so much debt for modest expansions, could a FSA help them in certain years?
- Farm 5
  - Levered up in order to expand dramatically, with a FSA could they have smoother income?
- Farm 7
  - Why would a FSA not makes sense from a managerial perspective? How does this drastically different strategy foil the other two farms?

# Farm 3

- Herd grew 44% over 10 years and purchased 264 acres
- Took out a significant amount of debt, decreasing its equity stake over 10% and increasing its debt per cow by 75%
- All this debt for only modest expansion that yielded one of the weakest performing farms

# Farm 3

- 2001: 51% equity, $3,292 debt per cow and Net Income of $464,436
- 2002: 36% equity, $4,566 debt per cow, Net Income of $-10,752, purchases $635 of extra capital per cow and increases herd by 6% → -$11,000 in
  - Had a family withdrawal of **$452,000** this year, shapes the whole picture of this farm
- At dangerous levels of debt, works to repay over next 6 years eventually getting to 62% equity by 2008, consistently paying more towards debt than planned
- After strong years in 2007 and 2008, earning a NFI of $444,000 and $317,000, respectively, the farm re-levers back to 36% equity and $6,636 debt per cow→
- NFI of -$428,045 o put this loss in perspective, total NFI over the 10 years was $1.5M

# Farm 5

- Grew herd size 392% over 10 years and purchased 429 acres
- Took out a huge amount of debt for this expansion, decreasing his equity position nearly 40% and doubling his debt per cow
- Of the farms we are considering, took the most aggressive approach

# Farm 5

- Starts with 65% equity in 2001, progressively get more levered over time, ending up 28% equity in 2010
- Has large, very volatile income
- Compared to Farm 3, which seemed to be trying to pay down debt, Farm 5 was consistently paying less than its planned debt payments
- Very consistent family withdrawals

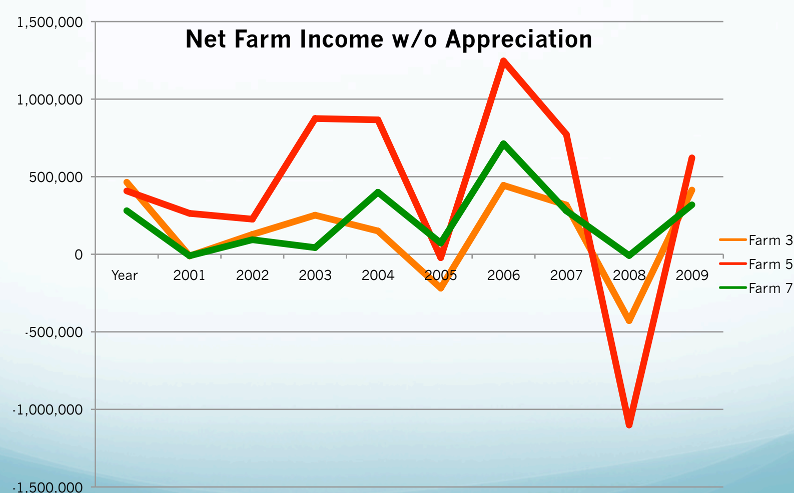
# Farm 7

- Only expanded its herd size 19% ending with 550 cows in 2010
- Purchased 556 acres
- Paid down debt and increased equity position 17%
- Had a higher Net Income than some farms that expanded more

# Farm 7

- A risk averse farmer
  - Consistently paying more than planned on debt payments to lower amount of debt on the farm
  - Because of this, there is no cash available to put into a farm savings account.
  - Money is being borrowed for land and capital purchases
    - This is a different philosophy, it would be difficult for Farm 7 to make use of a risk management tool when they don't have much risk

# Net Farm Income w/o Appreciation



# Cash Flow Coverage Ratio


# Available Farm Investment
or
What Could Potentially Go to the FSA?

# What’s Next?

- Find a searchable set of criteria that readily identifies farms that could use a FSA as a risk management tool
  - What is the range of farms, in terms of size, that could benefit?
- Investigate the FSA as an investment vehicle
  - Under what circumstances would the FSA be an optimal allocation of cash?
- Are there any potentially beneficial secondary effects to consider?