

Risk Issues at the Interface of Extension and Research: Ag Finance

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Agenda

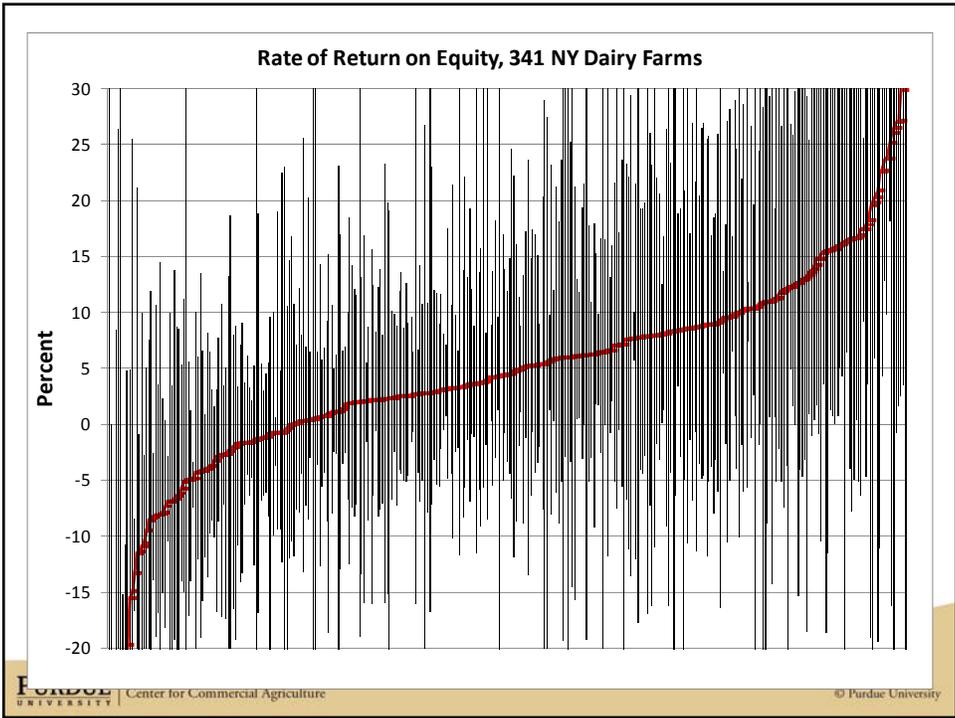
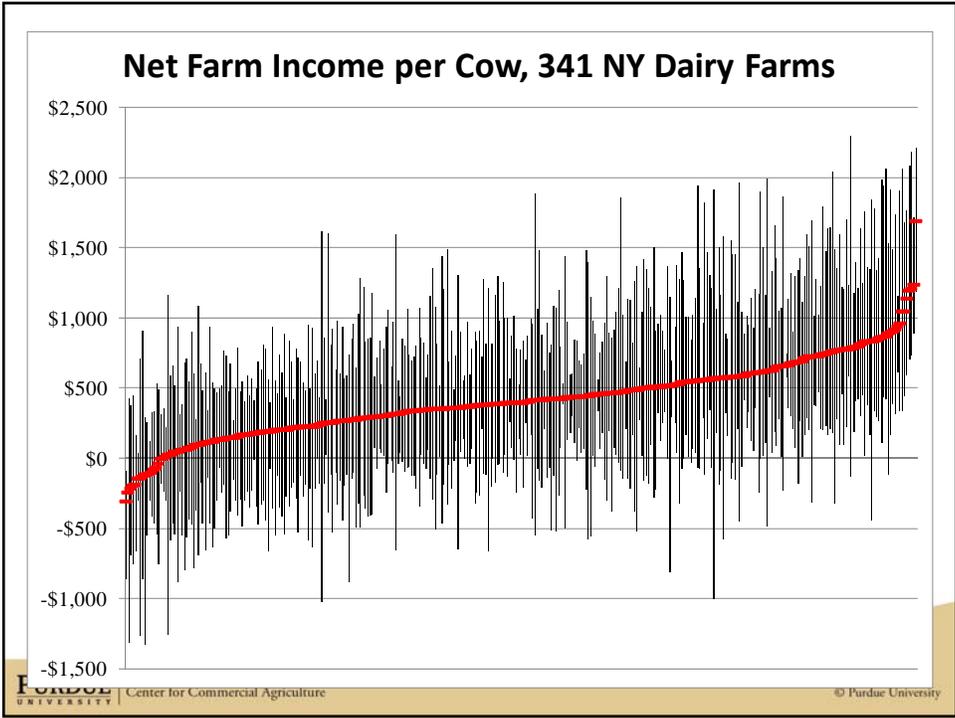
- Background
- Research Issues
- Extension Issues
- Interface

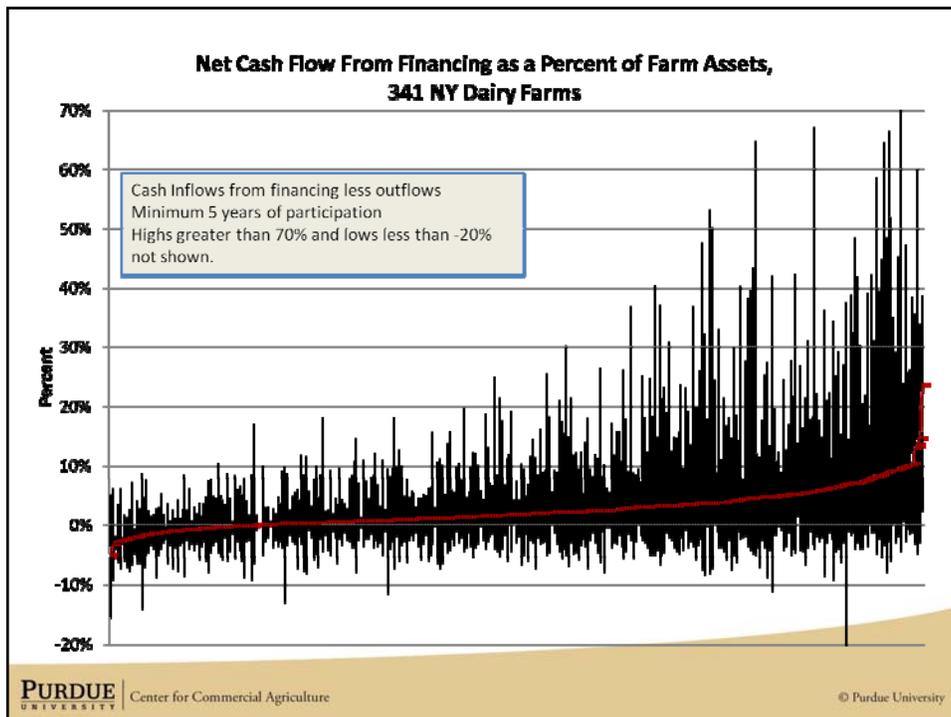
Background

- Focus is on financial risk and financial management more broadly
- Research – meant to describe research conducted primarily for peer audiences
- Extension – delivery of research results and applied research developed specifically to meet needs of agricultural producers

Risk and Finance

- Financial decisions and risk management are inherently linked
- Financial risk usually refers to additional/reduced risk associated with financial structure
- Risk and financial management continues to be one of the most important decisions/concerns faced by agricultural producers
- Recent events have renewed interest in implications of financial structure and decision making





Some Assertions

- There is a growing gap between the needs/interests of the research and extension audiences
- Much of this is driven by differing needs of research and extension audiences
- Work needs to be undertaken in research to address some of the more practical basic needs associated with financial risk management
- The needs are greatest in the area of financial MANAGEMENT and strategic decision making

Past and Current Research Directions

- Some of the major areas of research
 - Development and application of decision making under uncertainty paradigms such as EUH
 - Mechanics and applications of asset pricing theories to price assets and risks
 - Modeling probabilistic outcomes
 - Risk preferences – modeling choices under various risk preference structures

Past and Current Research Characteristics

- Data and computationally intensive
- Tends to be historically focused with focus on econometrically explaining prior behavior
 - Theories of capital structure/investment
 - Real options
 - Option pricing theories
 - NPV applications
 - Optimal hedging
 - Probability of default, loss given default, credit risk migration

Past and Current Research Directions

- Has relied on:
 - Careful specification of problem
 - Making assumptions about critical parameters of problems, i.e., risk preferences, discount rates, distributions of possible outcomes
- Has resulted in:
 - False sense of accuracy -- i.e., marginal = average returns, derivative pricing debacles
 - Inadequate attention to estimation of parameters and distributions faced by people in the real world
 - Methods that people in the real-world cannot apply either because they don't understand or don't trust or both
 - Elegant solutions to abstract versions of complex problems

Past and Current Financial Management Extension Directions

- Explanation and application of asset pricing and capital budgeting techniques
- Helping producers understand distributions and probabilities of outcomes
- Illustrating the impact of financial leverage and investment decisions
- Development of increasingly complicated and rigorous decision making tools

Extension Needs

- Much of financial management comes down to expectations of future returns
 - We have done little to understand how producers form expectations of the future and how to improve this critical financial management skill
- Making sound financial management decisions requires a solid understanding of the economics of the business much more work is needed in basic accounting and financial management

Questions the Farmer Might Ask

- Will this investment jeopardize my financial future?
- What investments do I make to insure my business is viable for the long-term?
- How do I improve my competitiveness?
- How can I finance/obtain capital to make necessary investments?
- How do I think about interest rate risks?
- What is my current financial situation and how do I improve it?

Extension Needs

- Most producers are fortunate to forecast the mean let alone higher moments of the distribution
- Need more work on decision making heuristics
- Investment decisions are critical to long-term success of farms – but we really know little about why producers choose to expand and how they are making this decision
- Most of the action is at individual farm variability, yet we know relatively little about this and how to incorporate it into our programming

Increasing the Interface

- There are many potential synergies between the basic research and extension needs
- Must ask hard question of “Why aren’t people using the techniques we develop/research?”
- Must develop more viable/credible research outlets for practical financial management research
- Need more research directed at actual problems rather than mathematically convenient solutions
- Need to be more creative in educating and bringing research findings to the field