

Capital Structure Evolution in Agricultural Cooperatives: A Prospectus

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Recent projects and common theme

- Market changes
 - Grain marketing (technology, competition)
- Demand for inputs and for risk management
 - Fertilizer
 - Wholesome food
- After establishing feasibility, capital obtained within the context of a business structure
- What is special about changes in costs of alternative sources of capital at this point in lifecycle, given the cooperative business structure?

The financial lifecycle of a cooperative

- The firm survives undercapitalization and begins operations
- The firm undergoes rapid growth in revenues and assets
- The firm obtains trade credit
- The firm obtains short-term financing but experiences lack of availability of long-term financing
- The firm encounters difficulty to raise equity quickly enough to meet needs
 - Liquidity constraints result
- This lifecycle is not unique to startups

Setting

- Cooperatives that
 - Are interested in “substantial” expansion of productive assets (e.g. entering a new market)
 - Require “substantial” changes in governance and management capacity
 - What effect does entrepreneurship education have on governance, management capacity for reducing effort costs to obtain capital?
 - If so, how can its effect be measured

Examples of the setting

- A marketing cooperative that is about to build a facility enabling them to enter a new geographic market
- A recently-opened retail cooperative that has passed through the startup phase and is now adjusting to daily operations
- Both need capital
- Both must change governance and management skills

Costs of capital

- Costs to obtain (Angelini, Di Salvo and Ferri 1998)
 - Effort needed to meet member return requirements
 - Effort needed to meet lending requirements
 - Effort to assess economic conditions
- Costs to use
 - Quality of governance and management (ease of screening and monitoring)
 - Fixed and variable costs to adjust quality of governance and management

Capital use and effort

- At the earliest stage of a cooperative's life
 - Members risk their own equity while **learning** their representation, governance, safeguarding, monitoring and control functions
 - Manager **learns** how to enact the business plan
- As the firm increases leverage, the board must **learn** how to satisfy lending requirements in addition to satisfying member objectives

Entrepreneurial skills required for capital use

- Directors:
 - Representation, governance, safeguarding, monitoring and control functions
 - Understanding of financial statements, a good sense of business, curiosity about the dealings of the management
- Management:
 - Enacting business plan
 - Interacting with membership

Determinants of entrepreneurial skill use costs

- Complexity of decision making
 - Size, growth rate of firm
 - Size of membership
 - Product market
 - Asset structure
 - Cash flow
- Geography
- Race – meaning the complex of accepted values in a group sharing similar ancestry

Perceptions of returns to effort to obtain entrepreneurial capacity

- What attitudes do directors have toward rewards from developing governance skills?
- What attitudes do managers have toward rewards from developing skills?
 - Cognition
 - Personal feelings
 - Behavior

Research question

- What is the nature of financial markets that fund cooperatives?
 - What equity and financing is needed at various stages of growth (demand)?
 - What is the nature of debt contracts associated with financing (supply of debt)?
 - How do relative prices of alternative sources of capital change at various stages of growth (relative prices of equity and debt)?

Research objective 1

Observe quantities of capital and debt used by cooperatives at various points in time, both within and across cooperatives

1. What rates of return awarded to members?
2. What interest rates required by lenders?
3. Are these rates related to the ability of executives to obtain and use debt and equity capital?

Research objective 2

Identify patterns in the allocation of asset control between owners and lenders cooperatives and measure the quality of executive skill demonstrated by directors (through their representation, governance, safeguarding, and monitoring and control functions) and chief executives (through their planning, organizing, directing, staffing, and controlling functions) to signal adequate executive capacity to use capital

Research objective 3

Identify how geographic and demographic characteristics affect the costs of developing human capital to signal repayment ability in a cooperative

1. Identify strategies for managing these costs including public policies

Research objective 4

Given the voluntary nature of governance, and the link with management, evaluate how education programs in governance, marketing, financial policy making, and strategic planning affect cooperative business executive (directors and chief executives) attitudes about their ability to signal capacity to obtain and use capital in cooperatives

Methods: Objective 1

- Demand for credit
 - Loan requests, severity of liquidity constraints, and attitudes toward cooperative business growth
 - Assess liquidity constraints
- Demographic data for the cooperative business
- Firm-level financial information
- Demographic data for chief executive of the cooperative
- Factors affecting the demand for the cooperative's product
- Credit price
- Stock of social capital
- Sources of equity used
- Sources and types of debt capital used and relationship with lender
- Terms of agreements for credit

Methods: Objective 2

- Interviews with cooperatives that have borrowed funds at times of liquidity constraint
 - Transaction costs associated with relationships with lenders
 - The oversight role lenders play in firm decisions
 - Other credit terms
 - Assess quality of board governance
 - Assess management quality

Methods: Objective 3

- Analysis of the relationship between managerial decisions and the monitoring effort required by lenders
 - Collect data about the risk assessment practices of cooperatives
 - Sources of risk, flexibility of financial decision making, degree of manager accountability to membership, and independence of the manager
 - Analyze relationships between
 - Interest rates and bank-co-op relationships
 - Borrowings and financial performance
 - Management characteristics and capital structure
 - Include macroeconomic and regional economic variables
 - Proxy for race by region

Methods: Objective 4

- **Managers** of cooperative businesses will be asked about their attitudes toward business practices related to capital structure
 - I anticipate instruction already exists and is provided by existing cooperative development centers, cooperative associations, 1890 Land Grant Institutions
- Attitudes toward the following skills (Bates 1995)
 - Use of internal financial controls
 - Requesting flexible loan terms (lines of credit, temporary waivers, bank loan guarantees, direct loans)
 - Tying financing to small-business receipt of procurement contracts
 - Hiring staff with accounting and auditing skills

Objective 4: cont'd

- **Directors** of cooperative businesses will be asked about their attitudes toward business practices related to capital structure
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Expected results

- These results will aid lender ability to assess creditworthiness, and member ability to assess investment merit in a given venture, especially for a small cooperative
 - Absence of experience
 - Potential absence of financial statements
 - For many lower income rural communities, small cooperatives often provide critical marketing and processing support to local producers and create much needed economic opportunity for rural residents.
 - Trend for local food distribution and marketing systems to be structured as small-scale cooperatives owned by small producers in rural areas (local foods, CSAs)

Expected results

- Aid in the development of public policies that reduce the costs of obtaining and using capital
 - Director education
 - Manager capacity
- A variety of statistical and econometric findings
 - Descriptive statistics about sources of equity and debt
 - Relationship between loan prices and firm-level demographic information, firm-level financial information, debt position, bank-firm relationship information, and an illiquidity indicator
 - Information about transaction costs associated with relationships with lenders, the oversight role lenders play in firm decisions, and other credit terms
 - Analyze the relationship between managerial decisions and the monitoring effort required by the lending firm
 - Analyze firm and manager characteristics on capital structure
 - Attitudes toward effort and skill development

Observations so far

- The collateral or cash flow problem
 - Housing vs. food (trade collateral problem for the cash flow problem)
- Decision structure of cooperatives
 - How diffuse is the decision structure at points in the financial lifecycle (source of information for screening and monitoring)
 - Incentives of managers to reveal information change at points in the lifecycle; director training
 - Length of time it takes for manager to become proficient
 - How many FTEs do you have?
- Location matters
 - Local financial market conditions and services available
 - Cost of finance is affected – screening and monitoring

Observations so far

- The role of professional associations and education resources
 - Sectors and geography matter
- Emotion of starting a business vs. having a market
 - Ability to increase human capital affected?