Risk Management Services in a Cooperative

Latvian National Rural Network Conference

"Cooperation for long – term farming"

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Table of content

- Risks & Coops
  - Definition and context
- Financial innovation as value driver of cooperatives
  - Why, How, What?
- Academic findings & experiences

Risks & Coops

- The biggest complexity is that cooperatives have an important "task (goal)" to help their members to be *financial healthy*
  - A coop can only prosper with financial healthy members
- Financial risk
  - The probability that the coop's net cash flow will be inadequate to satisfy member needs and coop's financial needs (health)

Risk & Financial Innovations

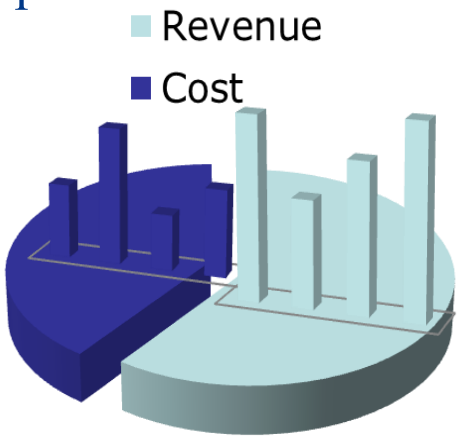
- Financial innovation (which allows technical innovation)
  - Decrease/manage price volatility of members (driver of member financial resilience)
    - Creating or using financial instruments to lower members' capital costs
      - ✓ capitalizing on natural hedge
  - Offering risk reduction services

Challenges: Heterogeneity of members preferences in terms of risk & return

- Members have different needs & preferences
  - For example: Risk management needs
    - ✓ Large differences in risk attitudes and risk perceptions of members
    - ✓ Results in different risk-return trade offs and hence behavior
    - ✓ Different member segments with different contracting (and risk) preferences

Cooperative as Portfolio of Contract Relationships

- Volatility in input (prices) and output (prices) drives:
  - Net cash flow volatility → residual risk → cost of capital
  - What is extent of natural hedge?
  - Co-variance structure of coop's portfolio
    - What risk is left? → **so called residual risk**



- Portfolio of relationships with members (heterogeneity)

How to manage residual risk?

Risk management instruments:

- Decentrally traded
  - Forward Contracts
- Centrally traded
  - Futures Contracts

Futures Contracts

Do not necessarily impact physical flow

– Separates price <-> physical flow

– These instruments have been around since 1848 What's new here?!!

- → New exciting developments

What is the value of using Futures Contracts?

- Risk-management instrument
  - Reducing price risk
  - Elimination of 'default risk'
- Market participants view holding futures as a temporary matter:
  - They are interested in the cash flow generated by futures trade
  - …these cash flows complement cash flows from participating in cash market…

Capitalizing on heterogeneity of members

- Cooperative as a portfolio (contractual) member relationships
- Unique co-variance structure (natural hedge)
  - By adding the risks from members and other channel actors
  - Coops can reduce the risk in their own portfolio

- Revenue model for coop and members:
  - Double whammy (accelerated effect!)
  - Higher cash flow (collecting risk premium)
  - Reducing cost of capital

$$\uparrow\uparrow SV = \sum_{i=1}^{t} \frac{A_i \uparrow}{(1+R\downarrow)^i}$$

Relationship between member and Coop: The role of futures contracts

- What about conflicting contract preferences between the cooperative and (part) of its members?

→Agreement on product quality, time of delivery and place of delivery but Disagreement on pricing scheme

→Price level

→Cash vs forward contract

Grain Coop (GC) case

Main challenge:

- Members face highly volatile grain prices
- Members demand action
  - ✓ needs/preferences & demands are heterogeneous
- Coop is loosing grip on physical flow of grain
  - ✓ (increasing their capital costs)

Grain Coop (GC) case

- Educate management and board members on risk management & coop relationships (coop structure): strengthening of **competence**
- Developing of action plan
  - Providing risk management service to members and combining this with physical flow challenge
- Educate members and employees about plan
- Develop tools (software) such that coop can implement and execute plan

Grain Coop (GC) case

Action Plan: Offering of 4 contractual relationships: *spot, pool, futures contracts or (virtual) storage*

- No actual storage (but instead coop goes long in futures markets on behalf of producer)
- Use storage facility for other use (e.g. fertilizer)
- Reduction in capital costs
- Cooperative insures physical flow

Grain Coop (GC) case

Results:

- Members can reduce their risk and hence cost of capital by services offered by coop
- Coop is ensured physical flow
- Using “futures” (=the action/plan) coop improves relationships, ensures physical flow and lowers its own cost of capital dramatically (capitalizing on storage)
- Coop is relevant for members again!

Leadership by Grain Coop Board and CEO

- Recognize and identify what you do **not** know→ investing in intangibles (knowledge → market-based asset); competence
- Motivating employees and coop members to *learn* and *respect* different risk-return preferences
- Capitalizing on heterogeneous risk-return preferences of members and portfolio risks of coop: Natural hedge
- Adoption of financial innovation

Experiences

- Content **knowledge** of CEO, Board and members is key:
  - In the case discussed today:
    - Natural hedge, hedging effectiveness and optimal hedge ratios
      - ✓ Needs to be understood

Commodity Risk Management Academy (now also online)

https://commodity-rm-academy.nl/

Experiences

- **Practical tools** are needed::
  - In the case discussed today:
    - Natural hedge, hedging effectiveness and optimal hedge ratios :

www.hedgingpro.com

https://app.comrisk.nl/ddgs_hedging

Risk Management & Coop Leadership

Demands **knowledge (and knowing what you do not know)** and **discipline to execute**