Data Requirements for Policy and Private Decision Making: A Canadian Perspective

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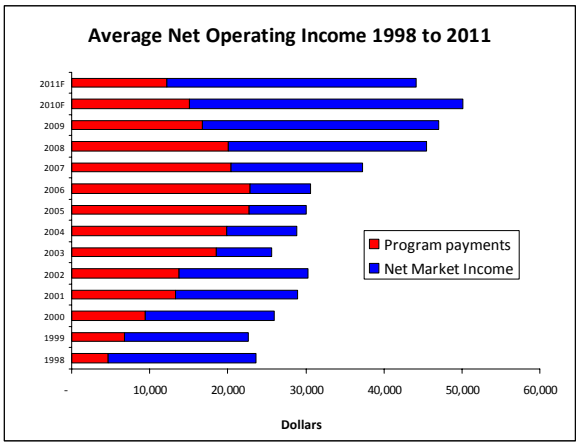
Presentation Outline

- Policy Context
- Canadian Farm Structure
  - Distribution of farms
  - Farm net income
- Complexity
- New Data Needs

After years of low farm incomes Canadian farmers are benefiting from higher commodity prices

Data requirements for policy and program for a generation have largely been driven by declining real commodity prices and relatively stable farm incomes.

More recently commodity prices have rebounded due to increased demand for food, climate shocks on supply, increasing ethanol production. This is expected to boost farm income and reduce reliance on government support.



Source: Statistics Canada, Taxation Data Program and AAFC calculations

Policy Context

Knowing farm production/financial characteristics alone will not meet demands for an increasingly complex agri-food system

- Growing Forward 2 policy framework is expected to create new data challenges and opportunities
  - Understanding changes in the global supply chain
  - Data requirements for new and existing private labels; "Carbon Labelling", "Reared without GMO's"
  - Non-food uses of agricultural products
  - Data on use of new technologies in agriculture
  - Adaptation of farms to meet consumer demands
  - Illustrating sustainable production practices
  - Complex business strategies of farms and farm families
  - Data on value added activities

Policy Context

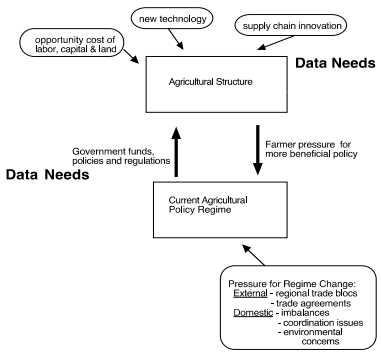
Key drivers of policy as outlined by AAFC's Deputy Minister

- The world needs more food
- Agriculture must play a much greater role in the Canadian economy
- Successful agriculture and food production are increasingly high-tech and customer focused
  - Superior food quality and safety
  - Value-added products
  - Better nutrition
  - Production that respects the environment and animal welfare

Policy Context

Policy, Farm Structure and Data Systems

Figure 2: Policy and Structure Dynamics



Bonnen's Agricultural Information System

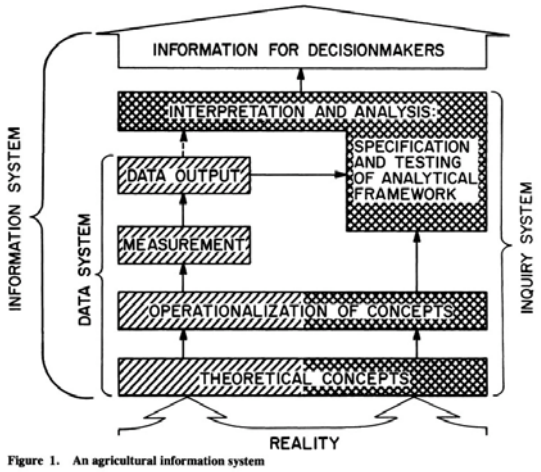


Figure 1. An agricultural information system

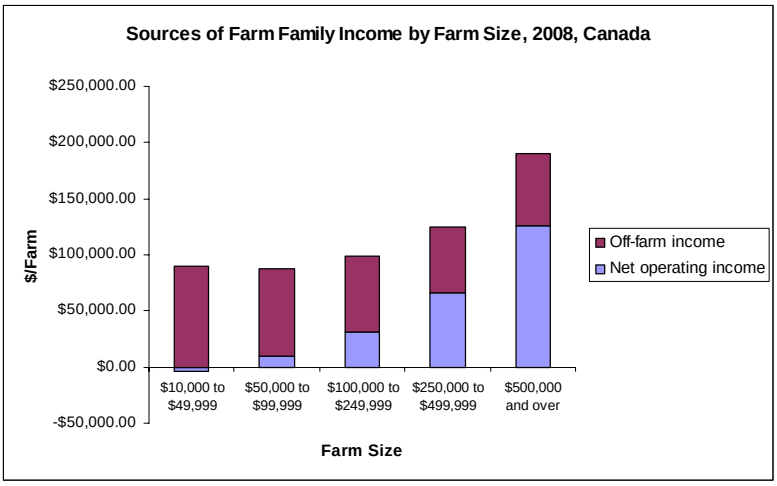
Data Implications

- New policies will be needed to help Canada capture opportunities within the country and to expand exports while ensuring a modern sustainable agriculture.
- The Growing Forward 2 policy framework will create new demands for data, as will the changing structure of agriculture as it evolves in response to these new opportunities and policies.
- In particular, we may need different types of data in order to capture the effects of complexity on farming establishments.

Current data processes are still based on full-time family size farms, but

- Most Canadian farm households rely on multiple streams of income.
- Over time small farms and very large farms are accounting for a larger share of farm numbers, farm output and farm land.
- While large farms show higher average levels of net farm income, some large farms report negative farm income, while many small farms have positive net farm income.

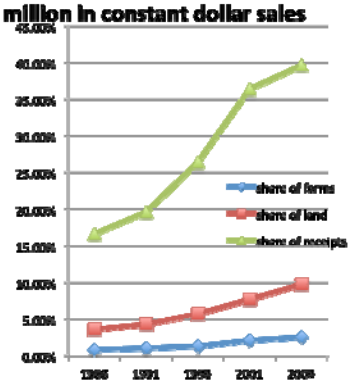
Off-farm income is important for all farm sizes



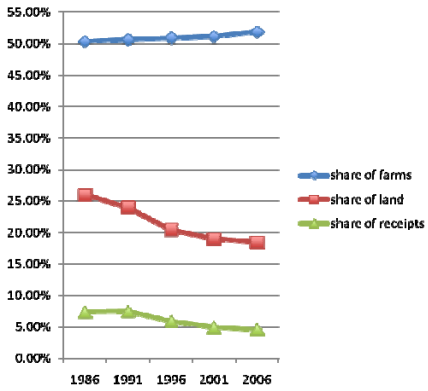
Source: Statistics Canada, Canadian Farm Financial Database

Relative roles of large and small farms in Canadian agriculture has changed over time

Large Farms: more than $1 million in constant dollar sales



Small Farms: less than $50,000 in constant dollar sales



Source: Statistics Canada, Census of Agriculture

Farms of all sizes can be persistently profitable and contribute to Canada's agri-food system

Persistence of Positive Net Farm Income, 1994 – 2003, Canada

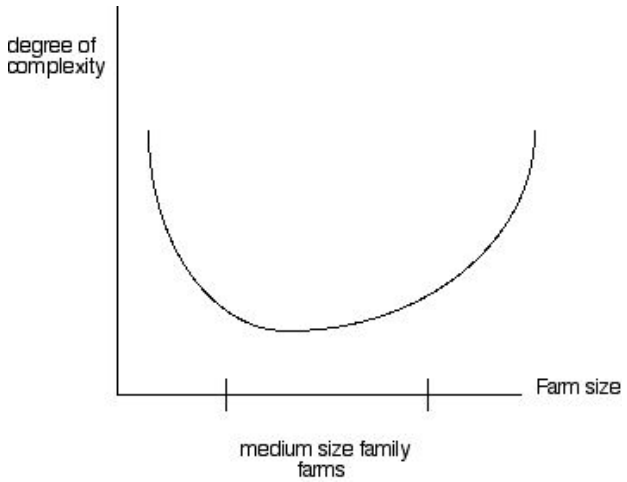
	Years of Profit			
	10 years (% of farms)	8 or 9 years (% of farms)	6 or 7 years (% of farms)	5 or less years (% of farms)
MICRO (less than $10,000)	10	13	11	66
VERY SMALL ($10,000 to $49,999)	19	18	13	49
SMALL ($50,000 to $99,999)	32	24	13	31
MEDIUM ($100,000 to $249,999)	48	24	11	18
LARGE ($250,000 to $499,999)	56	24	9	11
VERY LARGE ($500,000 and over)	53	25	10	11
ALL	29	20	12	40

Source: Statistics Canada, Longitudinal Administrative Databank (LAD)

Complexity

- Complexity occurs whenever farm decision-makers diverge from our assumptions about how they should behave. Sources of complexity include:
  - Management objectives that differ from profit maximization of the farm enterprise,
  - Input procurement and output sales decisions that differ from “arms length anonymous exchanges”,
  - Farm organization structures that do not fit the “family farm” model.
- Complexity is more common in the tails of the farm size distribution.

Complexity and Farm Size



Understanding the increasing complexity of large farms will be important for the next policy framework

- Large farms are growing and account for the majority of production and profits
- Data requirement for complex large farms include:
  - Ownership structure
  - New technologies being adopted
  - Production and marketing contracts
  - Role of non farm enterprises
  - Ownership throughout the value chain
  - Production practices
  - Tax strategies
  - Program strategies

Small farms in Canada are large in number and very diverse

- Small farms are typically viewed as unprofitable
  - Farms operated for tax benefits
  - Farms operated as lifestyle farms – country living, horse farms
- However, small farms can be complex and contribute to the Canadian agri-food system
  - Provide innovative products to meet consumer demands
  - Provide value added products
  - Capture larger margins by innovative marketing (i.e. farmers markets, restaurants, etc…)
  - Offer agri-tourism
  - Allow entry into the agricultural sector

Main Conclusions

- Complexity has to be understood in terms of the objectives of the farm/firm, not just in terms of its observed behavior.
- Complexity has to be understood in the context of the Canadian and international agri-food systems including changes in the system
- Complexity characterizes both large and small farms, because for farms in these size classes the simple objective of profit maximization at the enterprise level is unlikely to apply.
- Large farms have many aspects of complexity which are not captured in financial data—understanding these farms will be important for policy development and capturing opportunities.
- Small farms are very diverse in their nature; complexity of these farms goes beyond the traditional perception of small farms being unprofitable and lifestyle—enhancing data for these farms and understanding profitable small farms (which meet consumer demands for value added products, niche markets, and create alternative marketing channels) is important.