Risk management in Agriculture: What Role for Governments?

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123 EAAE seminar « Price volatility and Farm Income Stabilization »
Dublin, 23-24 February 2012
OECD Work on Risk Management in Agriculture
Volatility and stabilization
A framework to think of policies
Policy experiences
  1. Direct Payments
  2. Price Interventions
  3. Insurance support
  4. Mutual Funds
  5. Income stabilization
  6. Food aid
  7. Funds for “crisis”

Conclusions
Has Price Volatility Increased?

Annual Price volatility

Implied Price volatility (CBT)

- Wheat
- Maize
- Soybeans
What does it mean for farm income?

Not much: interactions between risks, strategies and policies

- Correlations, diversification, government’s programmes

Farm income variance is reduced by ...

- ...diversification
- ...output and input prices offsetting each other
- ...price and yield changes offsetting each other

Decomposition of the variance of income of arable crop farms. The reference level of risk is the calculated variance in the counterfactual case of zero correlations, co-variances and diversification. Based on time series of individual farmers.
What does stabilization mean?

![Graph showing stabilization and mean](Image)

- Black line: Mean
- Blue line: Market
- Red line: Stabilization
What does stabilization mean?

[Graph showing distribution of stabilization with and without costs and support.]

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What does stabilization mean?
Good policy response: Risk layering

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<th>More government involvement?</th>
<th>Catastrophic Risks</th>
<th>Marketable Risks</th>
<th>Normal Risks</th>
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<td>On farm strategies</td>
<td>Rare, high damage &amp; systemic</td>
<td>Middle range</td>
<td>Small damage but frequent</td>
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<td>Market tools</td>
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<td>On-farm strategy</td>
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<td>Ex-ante Policies</td>
<td>Disaster Assistance Policies</td>
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<td>- Ex-ante/ Ex-post payment</td>
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<td>Ex-post Policies</td>
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<td>Higher income loss</td>
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<td>Disaster Assistance Policies</td>
<td>Subsidized insurance</td>
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Crowding-out effects

- Government compensation for non-catastrophic risks off-sets pro-active risk management strategies:
  - Diversification: the main strategy
  - Market instruments
    - Contracts / integration
    - Futures: farmers benefit
    - Private insurance: asymmetric information
- Strongest crowding out from policies that address normal business risk:
  - Price support, income stabilization, CCP
- Weakest crowding out: Fixed highly decoupled payments
Policy approaches in different OECD countries

• Canada: margin stabilization
  – Agri-Invest, AgriStability, Agri-Insurance, Agri-Recovery

• US: Price / revenue stabilization
  – DP, CCP, ACRE, Insurance

• Australia y NZ: Disaster assistance
  – Bio-security; Drought and adverse events

• Japan: Price support and stabilization

• UE: Before MPS, today DP, Recently: risk management
1. Direct Payments

- Useful for risk management
- Other countries make them countercyclical
  - US’ MLA, CCP, ACRE...
  - Canada income stabilization (AgriStability)
- Advantages and disadvantages of countercyclical payments:
  - Socially acceptable
  - No payments when prices / revenue / income are high
  - Complexity of targeting
2. Price Interventions

MICRO SIMULATIONS RESULTS
Change in Income Variability CV

Diversification Index

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Price Interventions: EU “Safety nets”?

- It has nothing to do with a “safety net”
- They *Reduce* risk rather than *Manage* risk
- Only effective for very low Intervention prices
- Beyond certain level, it increases variability:
- Today “irrelevant” due to high world prices
- Other countries:
  - MPS in most countries
  - US’ MLA
3. Insurance market: will risk be transferred?

Premiums

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<th>Premiums</th>
<th>Supply of insurance</th>
<th>Demand of insurance</th>
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Area insured

Supply with Support (MARGINAL COSTS)

Efficiency gains

Demand of insurance

Supply of insurance

Area insured

X

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• Demand for insurance is hard to increase
• Start-up support
• Many countries have subsidized insurance (US, Canada, Spain...)
  ▪ Differentiate catastrophic and marketable policies
  ▪ Phase-out subsidies for non-catastrophic
  ▪ Avoid rent seeking
4. Mutual funds for Animal diseases

- There are examples in different countries that these can work
- Main difficulty is a clear-cut definition of government actions:
  - the rules that trigger control measures
  - the rates of co-financing with producers, and
  - the boundaries of public compensation
- Need of an overall agreement on how to govern animal diseases
5. Mutual funds for income stabilization

Not many examples in the world.
• Agri-Stability in Canada is not a Mutual Fund but a CCP
  – Trade-offs exist between targeting income and timely delivery
    • Delays to collect information and Black box adjustments
  – With delays payments are not counter-cyclical, become mere income support, and create demand for additional measures
  – Tax files are best sources of income information
• In theory, smaller mutuals can better monitor income.
6. Food aid

- Many other countries have domestic food aid programs:
  - In the US, 33 $ billion annually in 2008-10 > PSE

- The main issue is good targeting of the population in need.
7. Funds for crisis

Governance of Catastrophic risk

• OECD Governments will always be called on to provide disaster assistance
  – Political pressure
  – Be prepared with some *ex ante* framework
    • Procedures, Delineation of responsibilities, Triggering criteria, Types or levels of assistance
    • Examples: N. Zealand, Australia, Canada, The Netherlands, Spain
... Catastrophic assistance

- Crop insurance as a disaster assistance device
  - Farmers pay, transparent trigger, stable budget
  - Refrain from non-catastrophes, deter *ex post* assistance and efficient administration
  - *Only for production risk*

- How to enhance the role of the EU Commission in the Governance of catastrophic risk?
Conclusions

• Government policies should take a holistic approach
• Agricultural risk management policies should focus on catastrophic risks
• Subsidized insurance as disaster assistance has flaws...
• Support to market based instruments should focus on “start-up” conditions
• Government policies should not provide support to deal with normal risk
Conclusions EC Proposals on RM

- Risk management focus is welcome
- Progressive approach to develop risk management instruments, and farmers’ engagement
- Developing governance frameworks for catastrophic risk across the EU
- The governance of the funds for crisis is crucial
For more information

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