HOW CAN POLICY UNDERPIN FARMERS' RISK MANAGEMENT STRATEGIES?

Risk management is part of farmers' business strategy since production is subject to many uncertainties that could threaten returns or even the viability of farms. The prevalence of sources of risk that affect many farmers at once, such as weather-related hazards, is specific to agriculture. Managing these risks typically includes the use of a range of instruments such as production diversification, irrigation, futures markets, insurance and production/marketing contracts, as well as off-farm activities and assets. As argued in *Managing Risk in agriculture: a holistic approach*, governments have a role to play in facilitating access to market and non-market strategies, while empowering farmers to take responsibility for managing their own business risk.

The role of government

Risk management policies should be targeted at specific market failures and well-defined equity concerns. Some risk management markets are incomplete and therefore not all agricultural risks can be insured, pooled or transferred through market instruments. This is not a proof of market failure, and the appropriate role of government depends on the whole risk management system .

- *Normal risk* is frequent but not too damaging, and is typically managed at the farm or household level. General tax, health and social systems help to manage such risks.
- *Catastrophic risks* are infrequent, but cause great damage for many farmers. The significant uncertainties associated with these events and the possibility of substantial losses make it difficult to find market solutions, and market failure is more likely.
- Between these two extremes, there is a category of risk that, because of its intermediate frequency of occurrence and magnitude of losses, is potentially insurable.

If policies responding to catastrophic or normal risks are broad, they occupy part of the insurable fringe and may crowd out market and on-farm strategies. Defining the boundaries between types of risk is thus a major policy challenge.

Risk related policies in OECD countries

Agricultural policy measures have an impact on risk management. In several OECD countries, agricultural support is high. This additional revenue helps to manage farming risk and needs to be taken into account before implementing any new risk-related policies. Some measures are designed to prevent the occurrence of risks (risk reduction) or to limit their effect on income or consumption (risk mitigation and coping).

To reduce risk, most OECD countries offer market price support through border measures that typically stabilise domestic prices. They may also offer technical or investment support, such as water management and inspection services.

Ex ante measures for risk mitigation, in particular income tax smoothing systems for agriculture, are also used. Some countries go further by providing payments that are countercyclical with respect to prices or revenue, and provide subsidies for insurance policies or future contracts. Support for income diversification strategies is rare.

Risk layers and the potential role of government

	Catastrophic	Insurable	Normal
Type of Risk	Low frequency High damage	Medium frequency Medium damage	High frequency Low damage
Examples	Significant losses for many farmers, *e.g.* due to climatic events or contagious disease	Significant falls in returns of some farmers, *e.g.* due to hail, non-contagious disease	"Normal" fluctuations of prices and production
Role of Policy			
Equity	* Disaster/social relief	* Progressive tax system. Health and social protection	
Efficiency	* Compensate if externalities	* Facilitate the creation of markets by targeting potential market failures	

Ex post risk-related measures, such as disaster relief, social policy, and other ad hoc assistance like debt relief and labour replacement are also available in most countries. Typically countries with lower levels of price support have larger shares of risk-related payments.

OECD's holistic approach to risk management

A great diversity of sectoral and non sectoral policies, sometimes addressing part of the risk, affects agricultural risk management. This may have unintended effects due to important correlations between different sources of risk, policy instruments and risk management strategies.

Countercyclical payments may discourage farmers from taking advantage of natural hedging due to negative production/price correlations; make market instruments less attractive; and contribute to the incompleteness of markets.

Insurance subsidies may discourage farmers' diversification strategies.

Generous disaster assistance may displace other risk management strategies.

Good risk management policies for the agricultural sector need good risk governance through:

- Creation of markets by addressing market failures such as missing /asymmetric information.
- Avoidance of rent seeking incentives in support and disaster assistance.
- Accounting for trade-offs between different government objectives:
  - Policies that most reduce risk may not have the largest positive impact on farmers' welfare.
  - Risk-related measures tend to have significant impacts of production, conflicting with the objective of minimising trade effects.

Recent price volatility: a role for policy?

Since 2007, agricultural commodity markets have experienced increasing volatility, particularly in daily quotations of futures markets. This may be linked to increased participation of non-commercial investors, but the evidence is unclear. In the last two years, volatility of monthly wheat cash prices has been high but lower than after the economic crises of 1929 and 1973 that implied adjustments to lower and higher prices, respectively. In both cases volatility remained high for some years until a new, less volatile price level was found.

With high volatility, prices may not capture good information on costs, and market outcomes are more likely to be inefficient. Is there a role for government? Existing studies cannot confirm that price stabilisation is welfare enhancing, while there is evidence that domestic price stability is purchased at the expense of larger international price instability. But the major economic costs of price stabilisation are due to the political economy of picking a "wrong" price that does not reflect economic opportunity costs, particularly in a period of high volatility. This is part of the experience of the international commodity agreements developed in the 1970s and that have gradually abandoned price stabilisation. The economic implications of price stabilisation are far reaching, depend on the nature of the institutional arrangements, and require in-depth analysis of costs and benefits in a holistic framework.

Wheat prices: level and volatility 1908-2009

Monthly data of "All Wheat, US season average price" from 1908-09 to 2008-09 from USDA/ERS data