



How Can Policy Underpin Farmers' Risk Management Strategies?

Jesús Antón

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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. Agriculture is unique in that myriad sources of risk exist that affect many farmers at once, such as weather-related hazards. Managing these risks typically includes the use of a range of instruments including production diversification, irrigation, futures markets, insurance and production/marketing contracts, as well as off-farm activities and assets. As argued in OECD's work, *Managing Risk in Agriculture: A Holistic Approach*, governments have a role to play in facilitating access to risk management strategies while at the same time 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. Reasonable variations in weather patterns and changes in market conditions fall into this category. General tax, health and social systems help to manage such risks.
- Catastrophic risks such as floods, droughts or some contagious animal diseases 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. This layer of risk includes specific perils for which private insurance is available, such as hail, as well as larger price fluctuations that can be smoothed with futures and contracts.

Figure 1. 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 animal disease outbreaks	Significant declines in returns of some farmers, e.g. due to hail, non-contagious animal disease	"Normal" fluctuations of prices and production
Role of Policy	* Progressive tax system. Health and social protection		
<i>Equity</i>	* Disaster / social relief	* Facilitate the creation of markets by targeting potential market failures	
<i>Efficiency</i>	* Compensate if risk is an externality (i.e. a contagious animal disease outbreak)		

If policies responding to catastrophic or normal risks are too 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.

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 still 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.

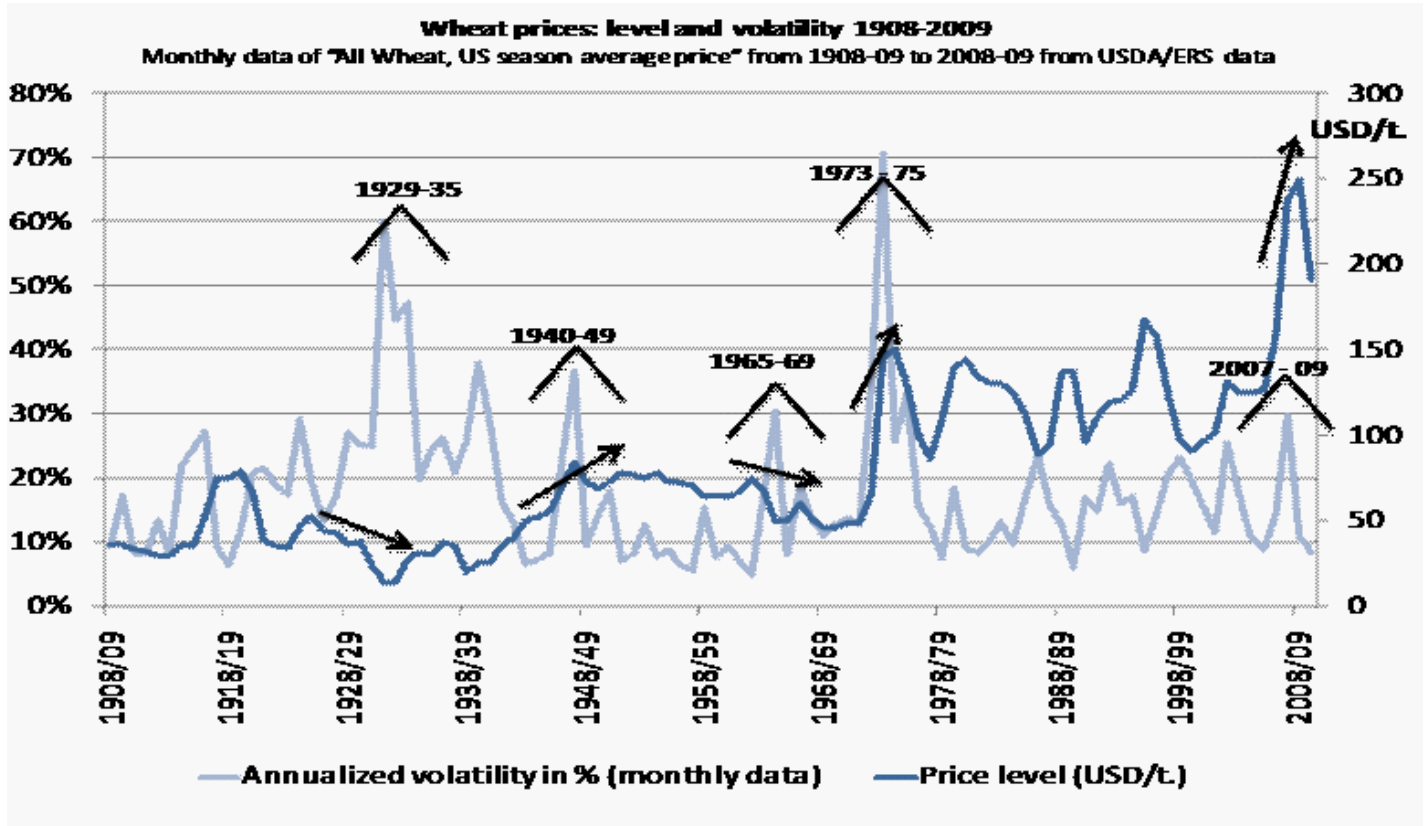
With high volatility, prices may not capture good information on costs, and market outcomes are more likely to be inefficient. Is there a role for government? Existing studies cannot confirm that price stabilization is welfare enhancing, while there is evidence that domestic price

stability is purchased at the expense of larger international price instability. But the major economic costs of price stabilization 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 was part of the experience of the international commodity agreements developed in the 1970s, which have gradually abandoned price stabilization over the subsequent decades. The economic implications of price stabilization are far reaching, depend on the nature of the institutional arrangements, and require in-depth analysis of costs and benefits in a holistic framework.

Risk related policies in OECD countries

Agricultural policy measures have an impact on risk management. Several OECD countries provide high levels of agricultural support. This additional revenue helps farmers manage 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

Figure 2. Wheat Price Volatility, 1908-2009



border measures that typically stabilize domestic prices. They may also offer technical or investment support, such as water management and inspection services.

Measures to mitigate or cope with risk can be divided into two categories: *ex ante* and *ex post*. Income tax smoothing systems for agriculture are the most commonly used *ex ante* measures for risk mitigation. Some countries go further by providing payments that are countercyclical with respect to prices or revenue and subsidizing insurance policies or future contracts. Support for income diversification strategies is rare.

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.

A holistic approach to risk management

Many sectoral and non-sectoral policies affect 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.

Risk management, therefore, requires a holistic policy approach. Good risk management policies for the agricultural sector should accomplish the following:

- 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: 1) policies that most reduce risk may not have the largest positive impact on farmers' welfare and 2) risk-related measures tend to have significant impacts on production, conflicting with the objective of minimizing trade effects.