

# Determinants of agricultural market price volatility: The roles of supply, demand and speculation.

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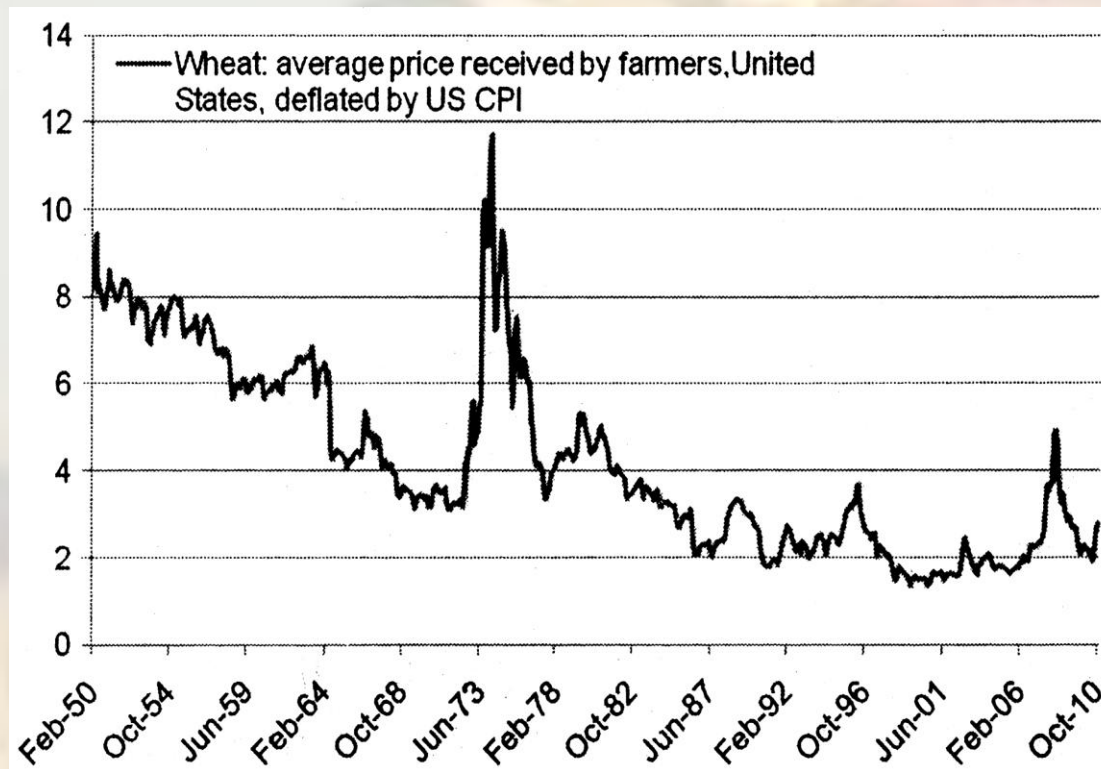
**Brussels, 12.12.2011**

# Asymmetry of volatility

- Limited fluctuations around the trend,
- Occasional sharp spikes,
- But no deep troughs.

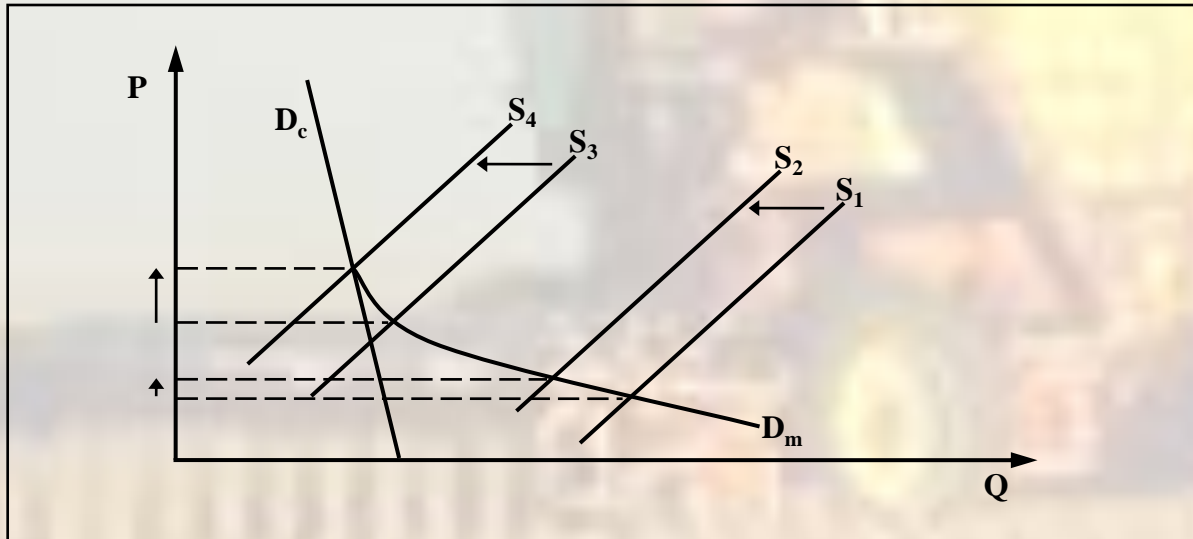
# Asymmetry of volatility

Source: USDA; quoted in Wright (2011)



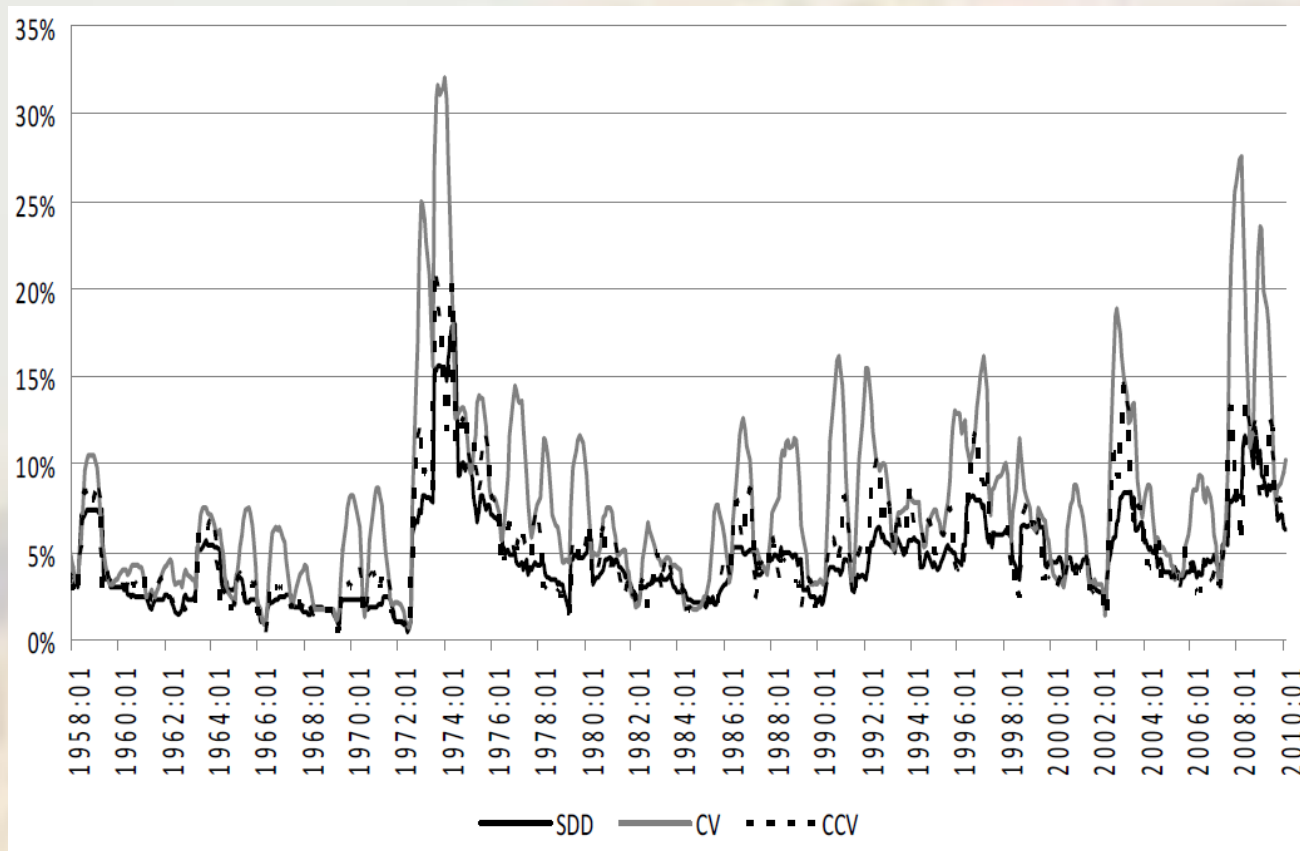
# Asymmetry of volatility

Source: Wright (2011)



# Volatility of prices has not increased

Source: USDA, quoted in Wright, 2011)



# Speculation in economic theory

- Speculators want to make money.
- They are successful only if they predict future prices correctly.
- Speculators are active in futures markets.
- On futures markets expectations are traded not commodities.
- Commodities are traded on spot markets.

# Speculation in economic theory

- Futures market permit market participants to buy insurance against price risks.
- They can serve that function only if there are speculators who are willing to carry that risk.
- Empirical evidence suggests that for monthly prices supply and demand matters and not speculation.

# Empirical evidence: The wheat price spike of 2007-08

Source: von Witzke and Noleppa (2011).

<b>Variable</b>	<b>Percent change</b>	<b>Variable</b>	<b>Percent change</b>
Oil price	29.3	Export restriction	6.1
Freight rates	29.6	Production	-10.7
Population	2.3	Bioenergy	0.1
Income	2.0	<b>Ttl. observed</b>	<b>77.8</b>
US\$ ER	7.6	<b>Ttl. explained</b>	<b>78.3</b>



# The role of the price of energy

- Long term: Price of energy has become the single most important variable of commodity prices on the supply side.
- Short term: Dto.
- Oil price volatility: additional source of volatility.
- Evidence from the 2010-11 price spike: High prices and sufficient stocks!

# Conclusion

- Emphasis on speculation distracts from the underlying factors:
  - Declining productivity growth and declining agricultural research investments;
  - energy price increase and volatility.



**Thank you for your attention.**

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