

Financial crisis and adjustment policies

What impact on rural areas?

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European Commission
Agriculture and
Rural Development

Outline

- 1. Financial crisis and agriculture**
- 2. Causes of agricultural price volatility**
- 3. Policy challenges and options**

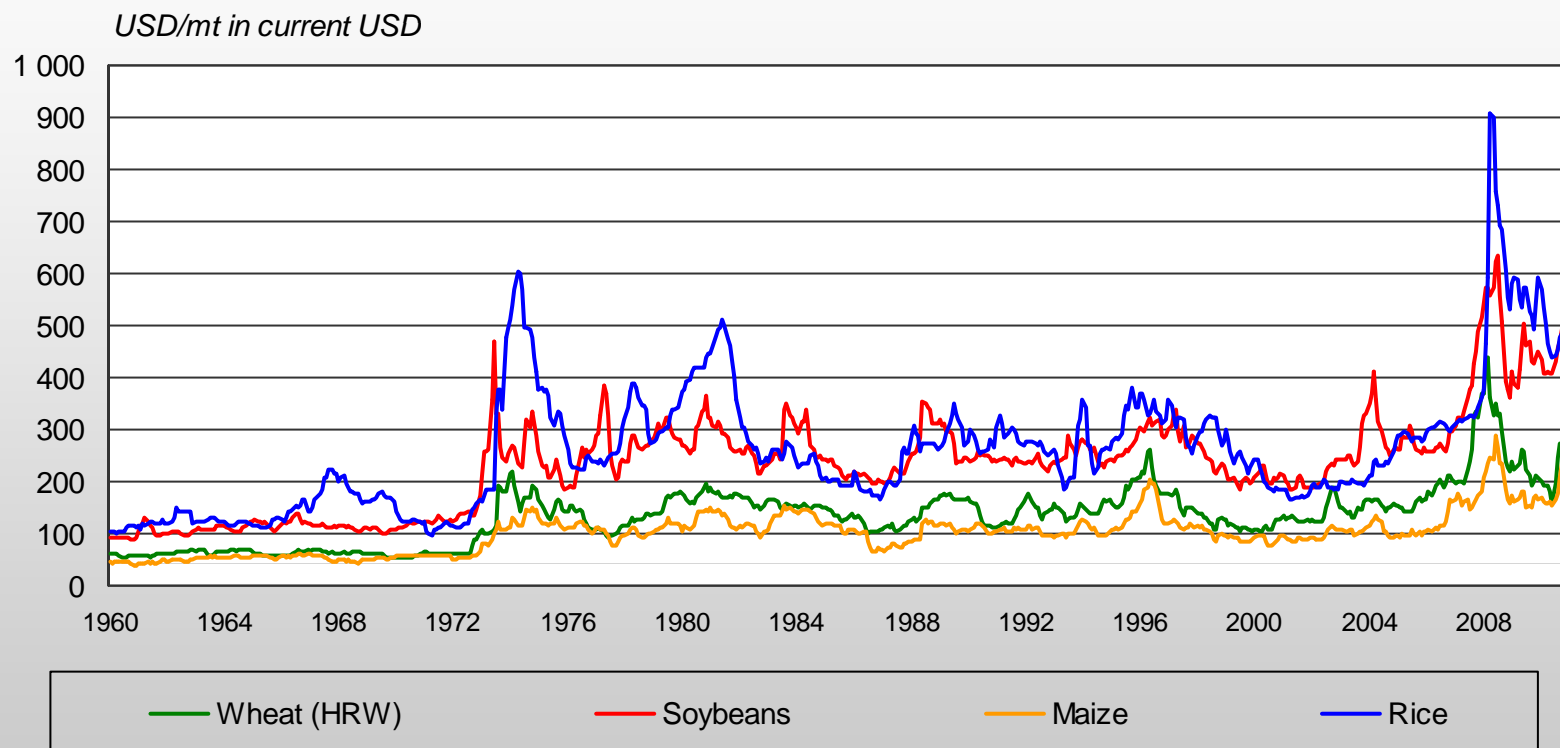
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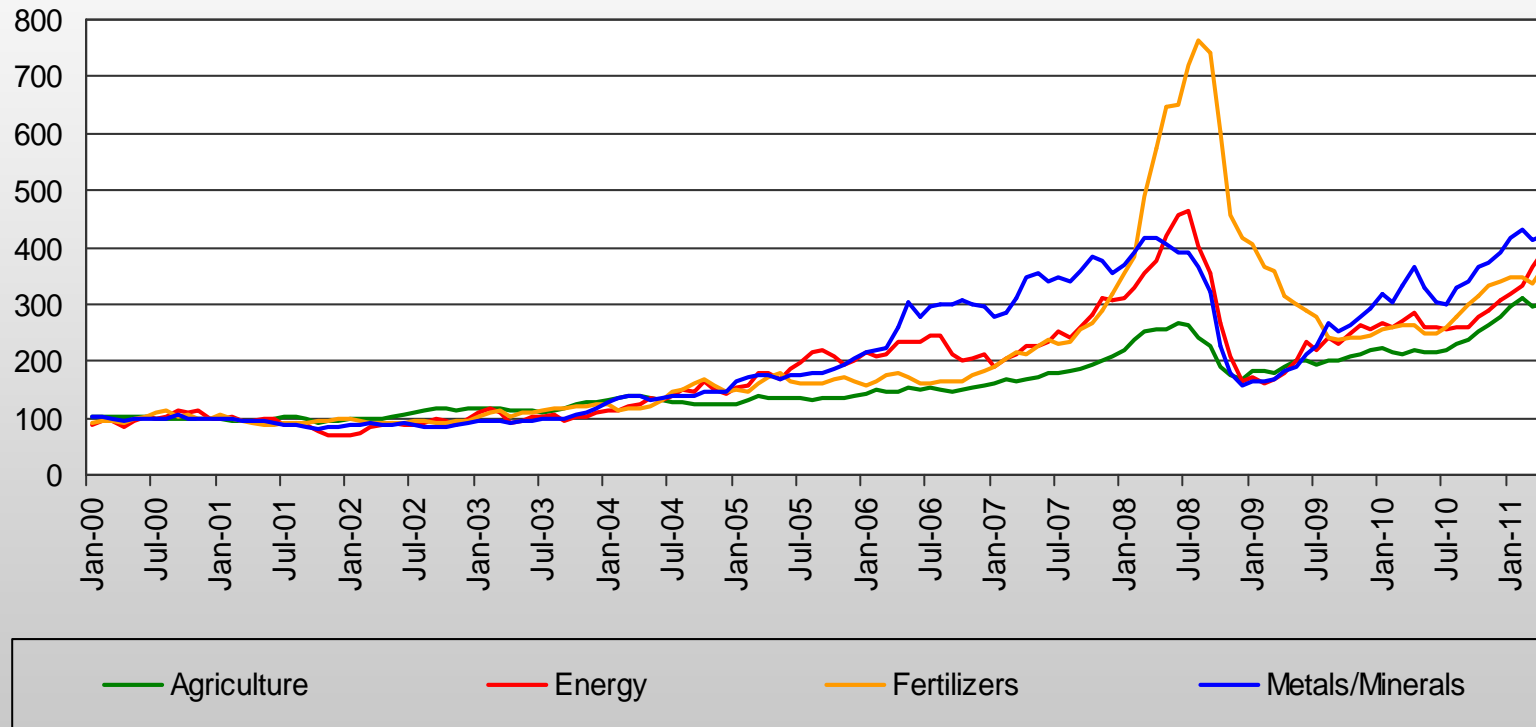
Long term agricultural price developments



Source: World Bank

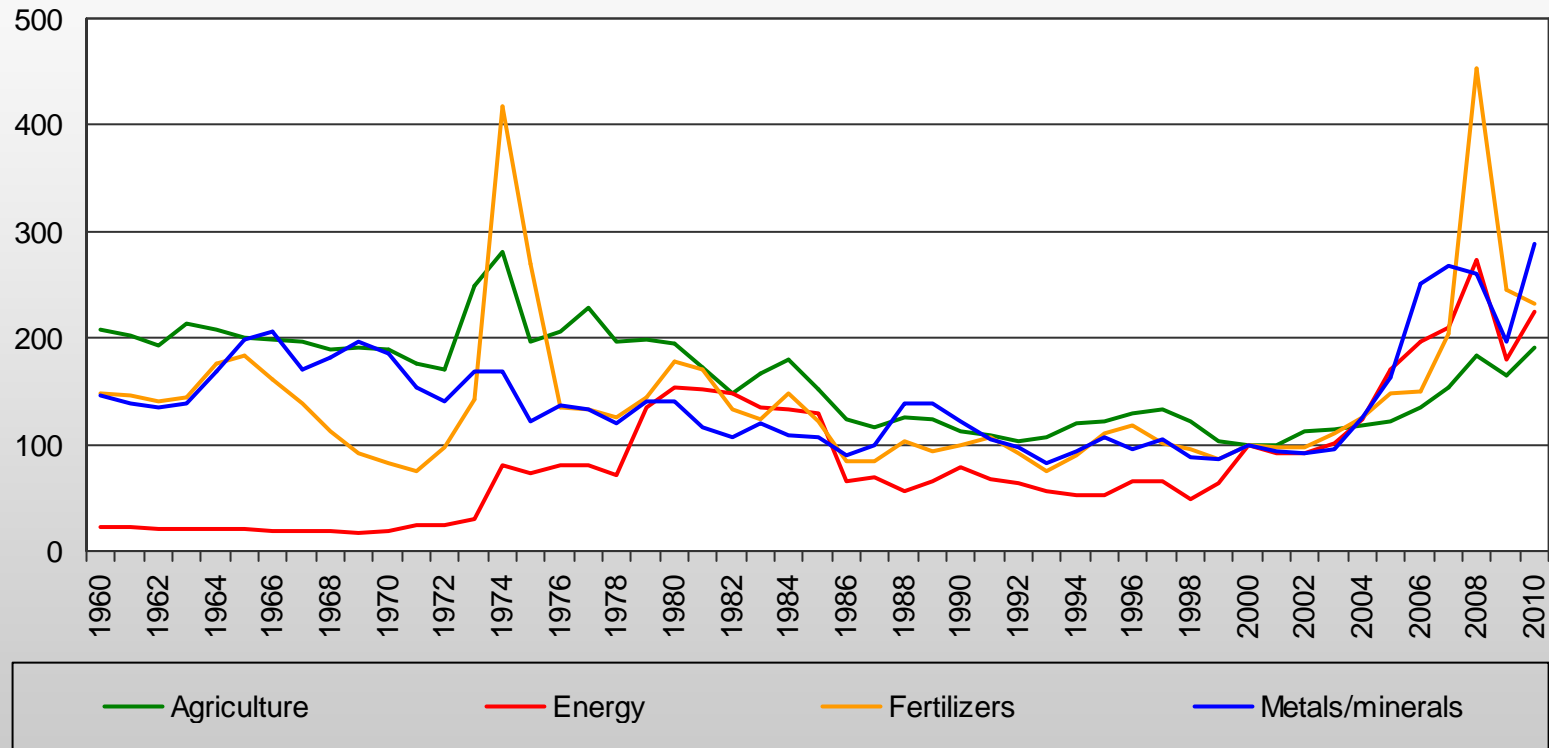
Recent trend of commodity price indexes

(World Bank nominal price index (2000 = 100))

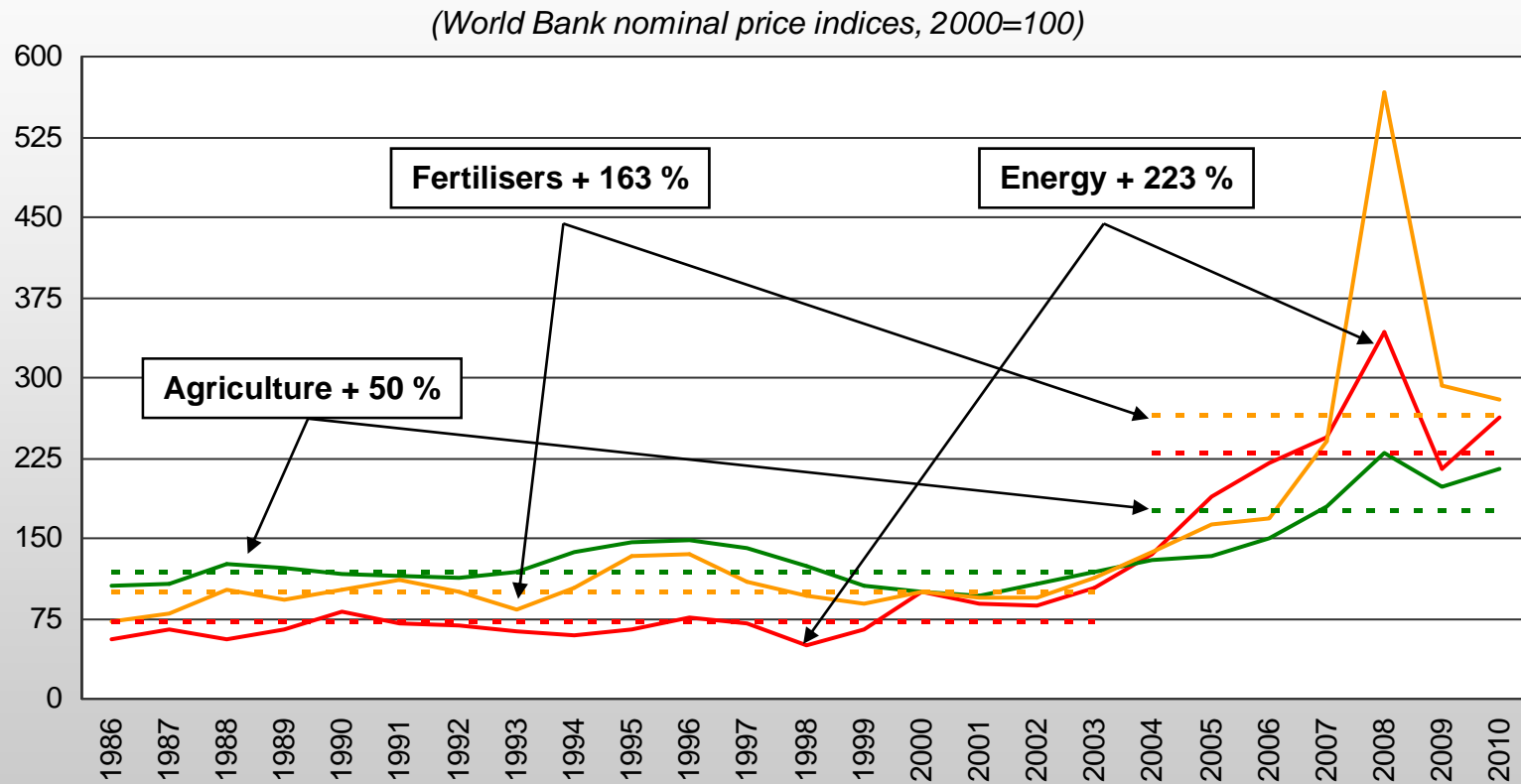


Real commodity prices

(World Bank real price indices, 2000 = 100)



Recent trends in commodity prices



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Four basic questions on commodity prices

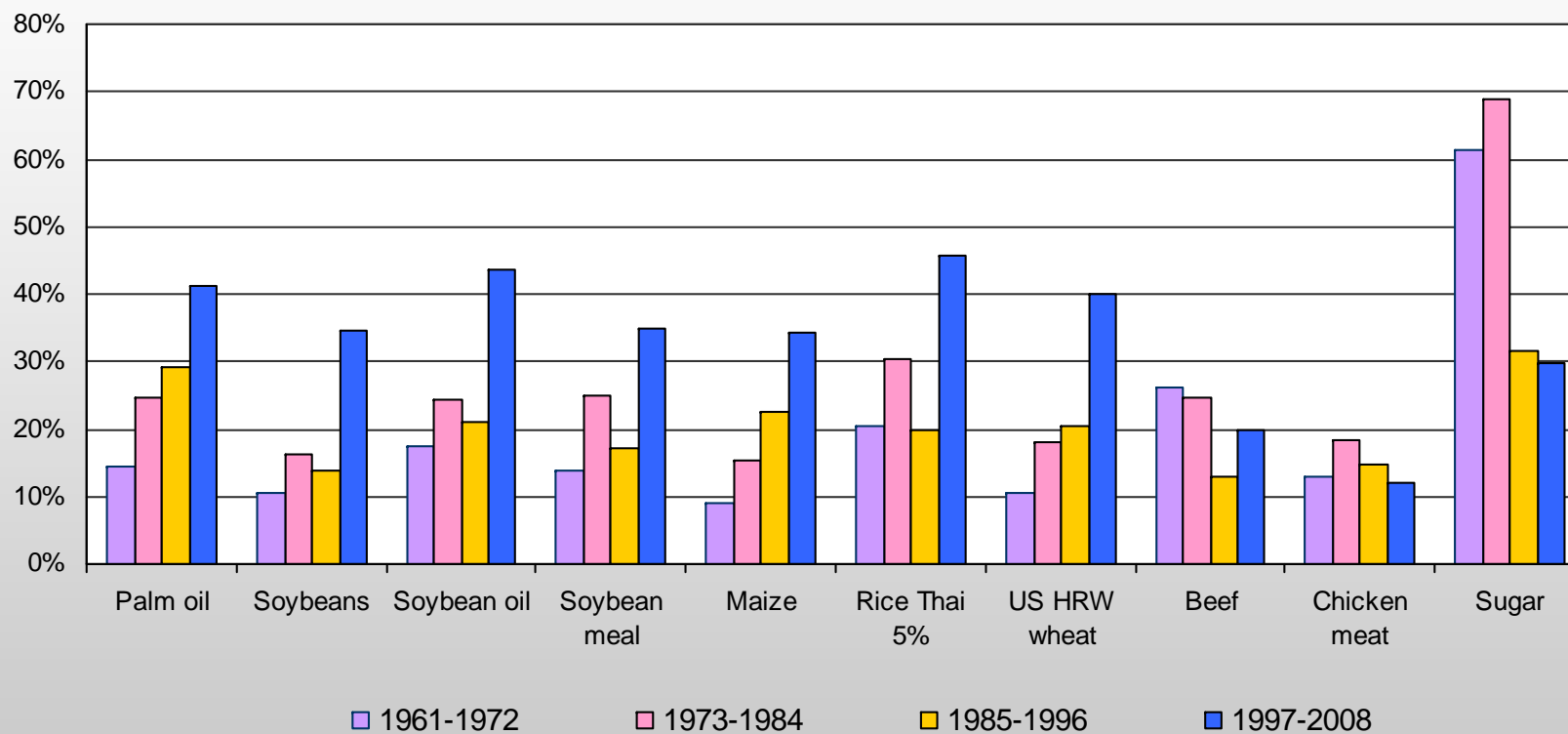
1. Is price volatility higher than in the past?
2. Is this driven by higher yield variability?
3. Is it due to a sharp increase in food demand?
4. Are prices more responsive to stock changes?

Focus of analysis: developments in commodities since 1961

Is price volatility higher than in the past?

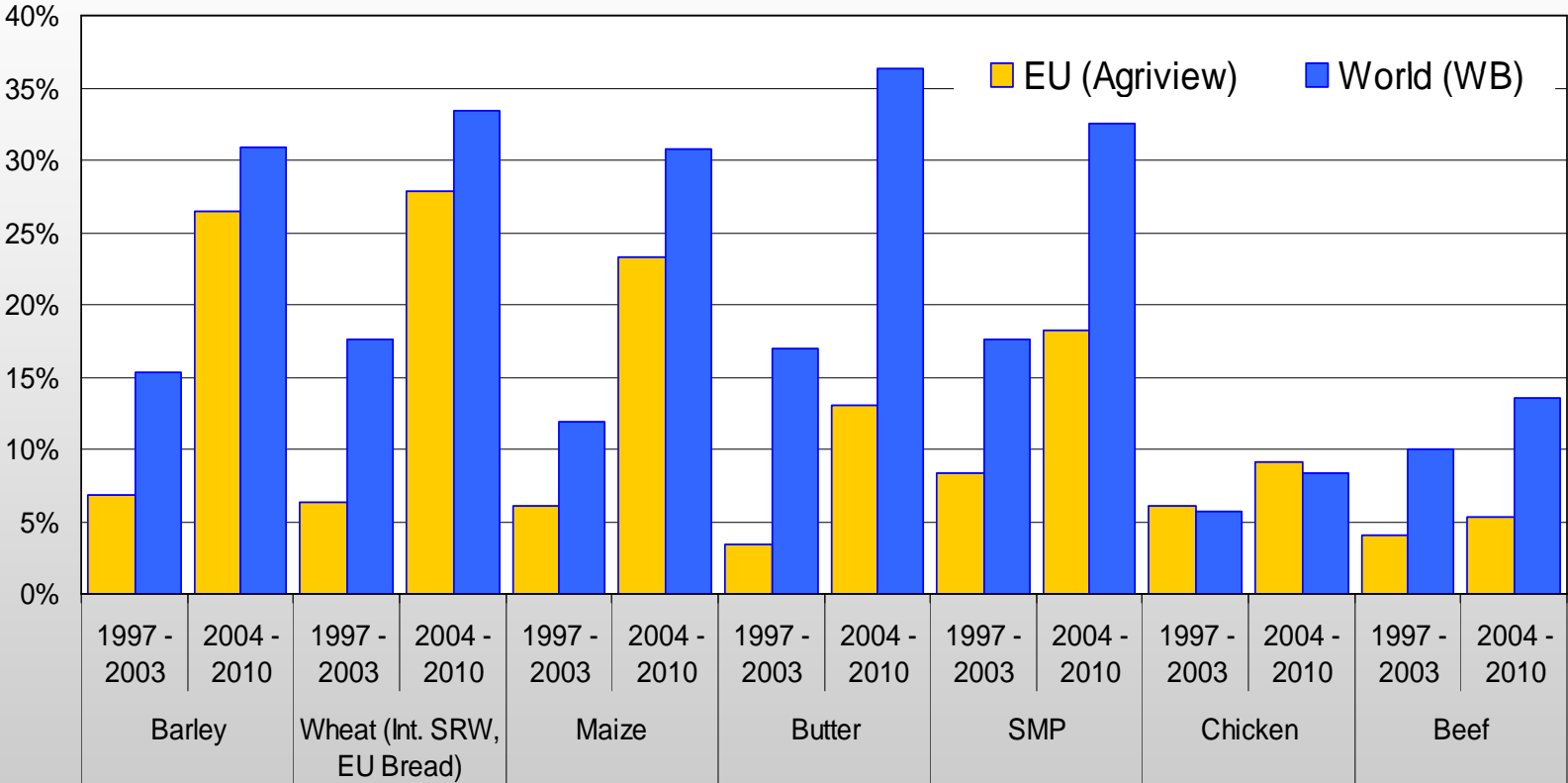
1. Price volatility increased during the last decade compared to previous periods of spikes for most agricultural products
2. Exceptions are beef, poultry, and sugar, where price volatility was higher in the 1970s
3. EU agriculture price volatility increased more than world price volatility (CAP reform process of market orientation)

Coefficient of variation for selected products



Source: World Bank

Coefficient of variation for comparable products



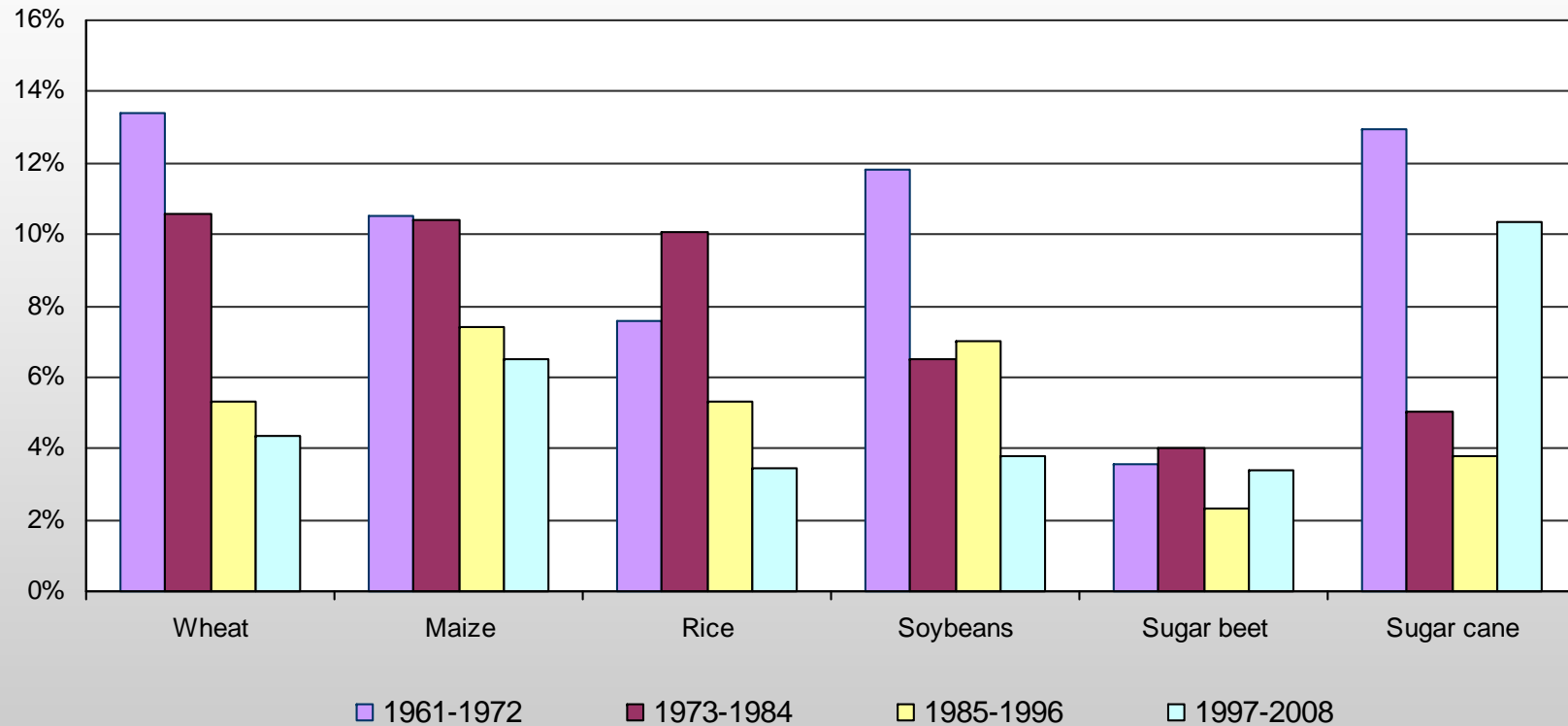
Sources: Agriview and World Bank



Is price volatility driven by yield variability?

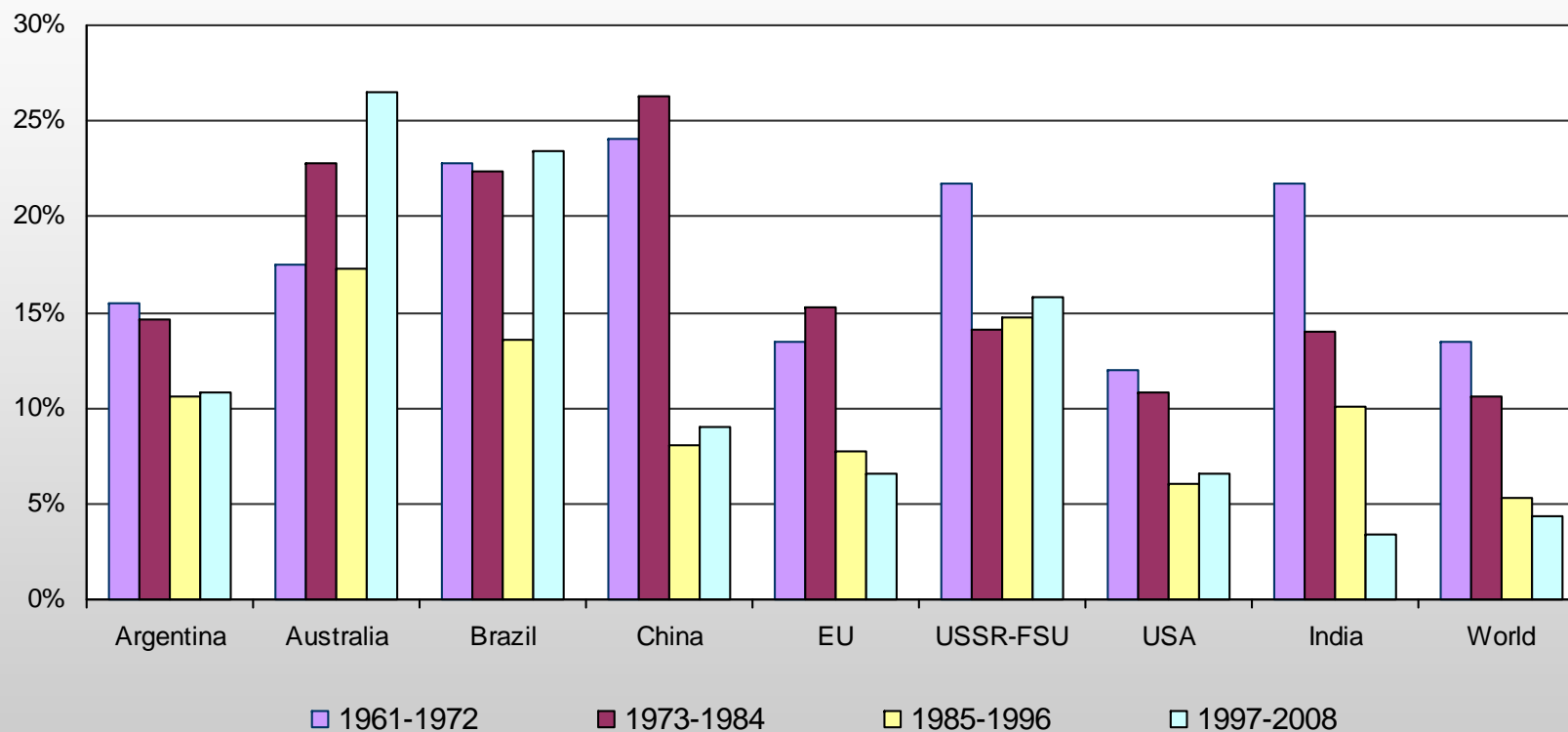
1. No clear pattern in changes of yield variability
2. Situation differs between countries and commodities
3. No straightforward conclusions can be drawn

Yield variability for 12 years - World



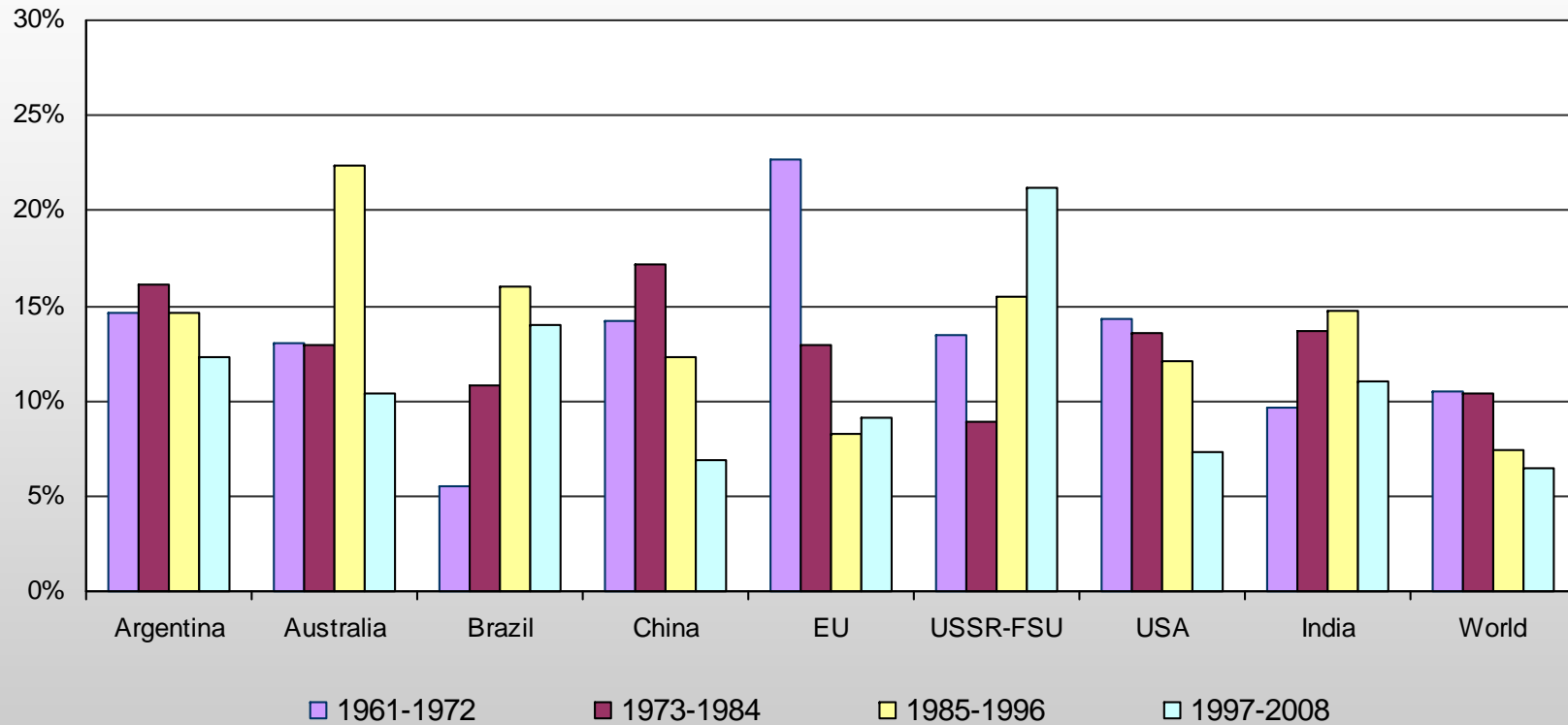
Sources: USDA, FAO

Yield variability for 12 years - Wheat



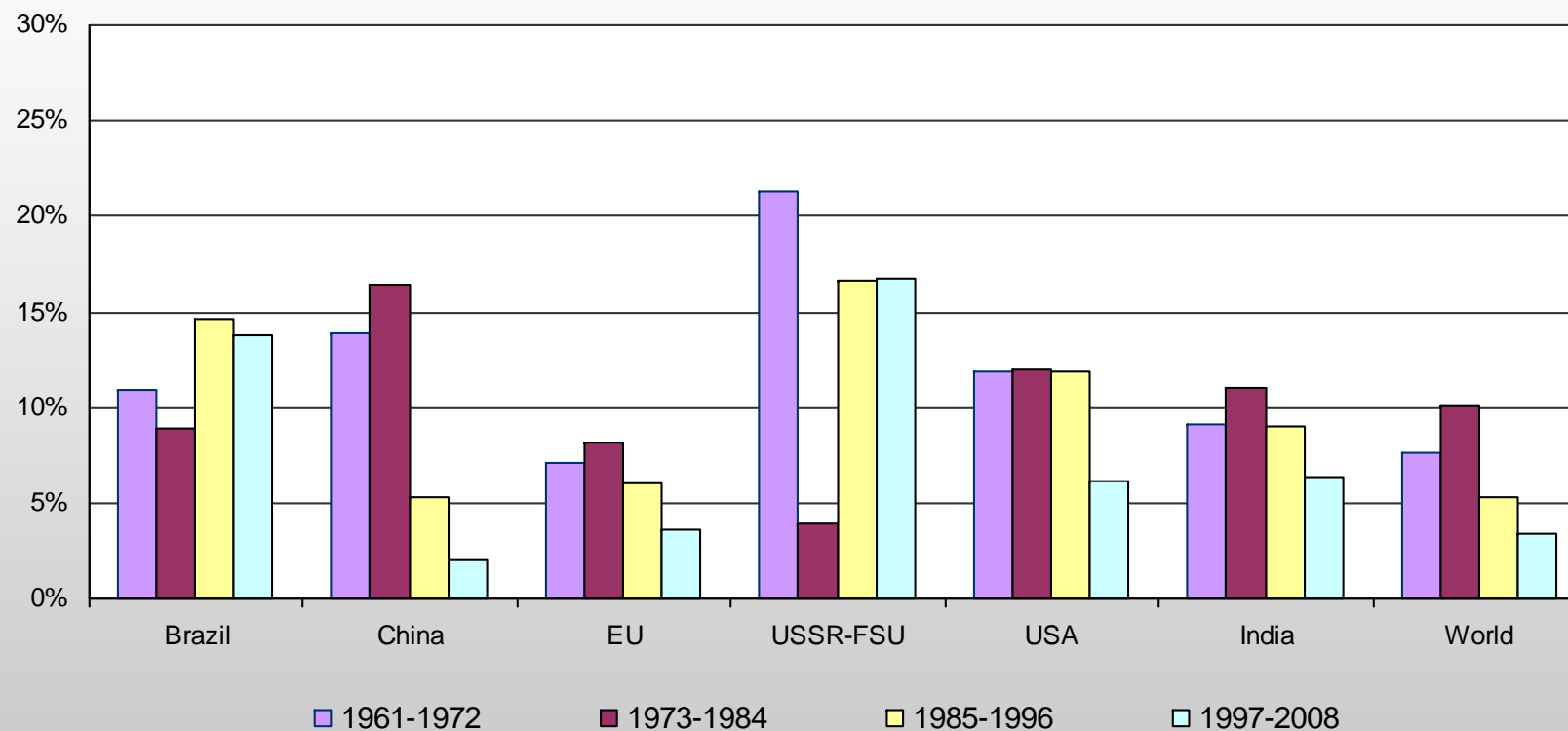
Sources: USDA, FAO

Yield variability for 12 years - Maize



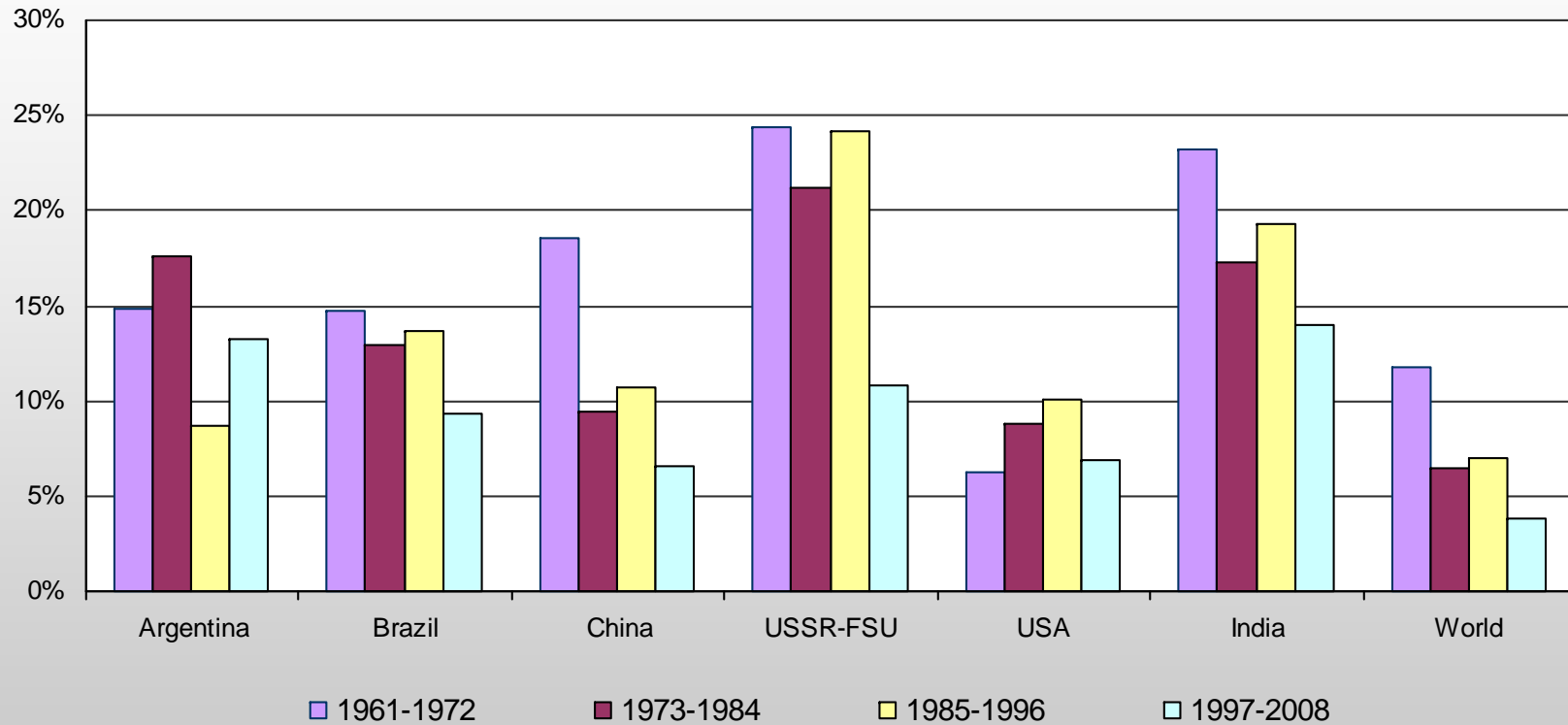
Sources: USDA, FAO

Yield variability for 12 years - Rice



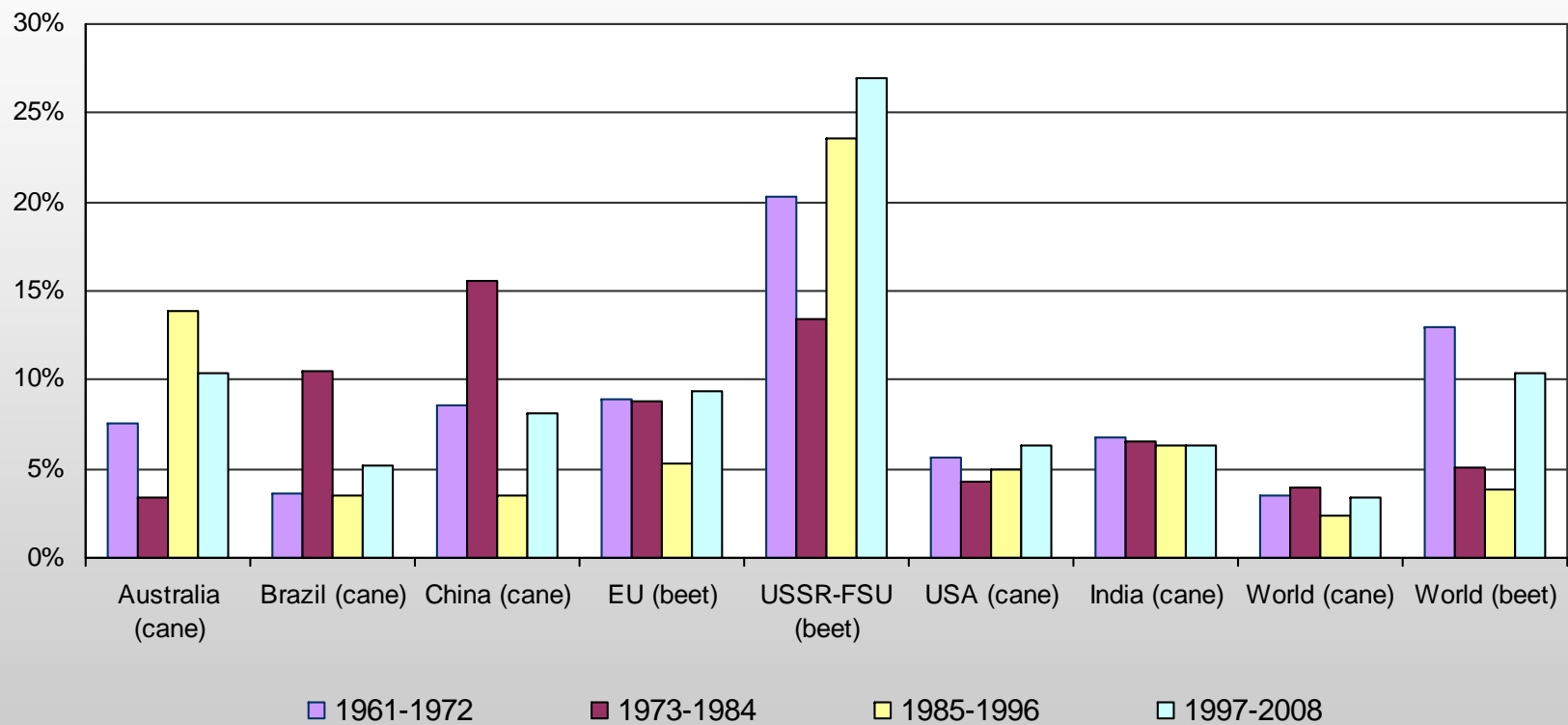
Sources: USDA, FAO

Yield variability for 12 years - Soybeans



Sources: USDA, FAO

Yield variability for 12 years - Sugar



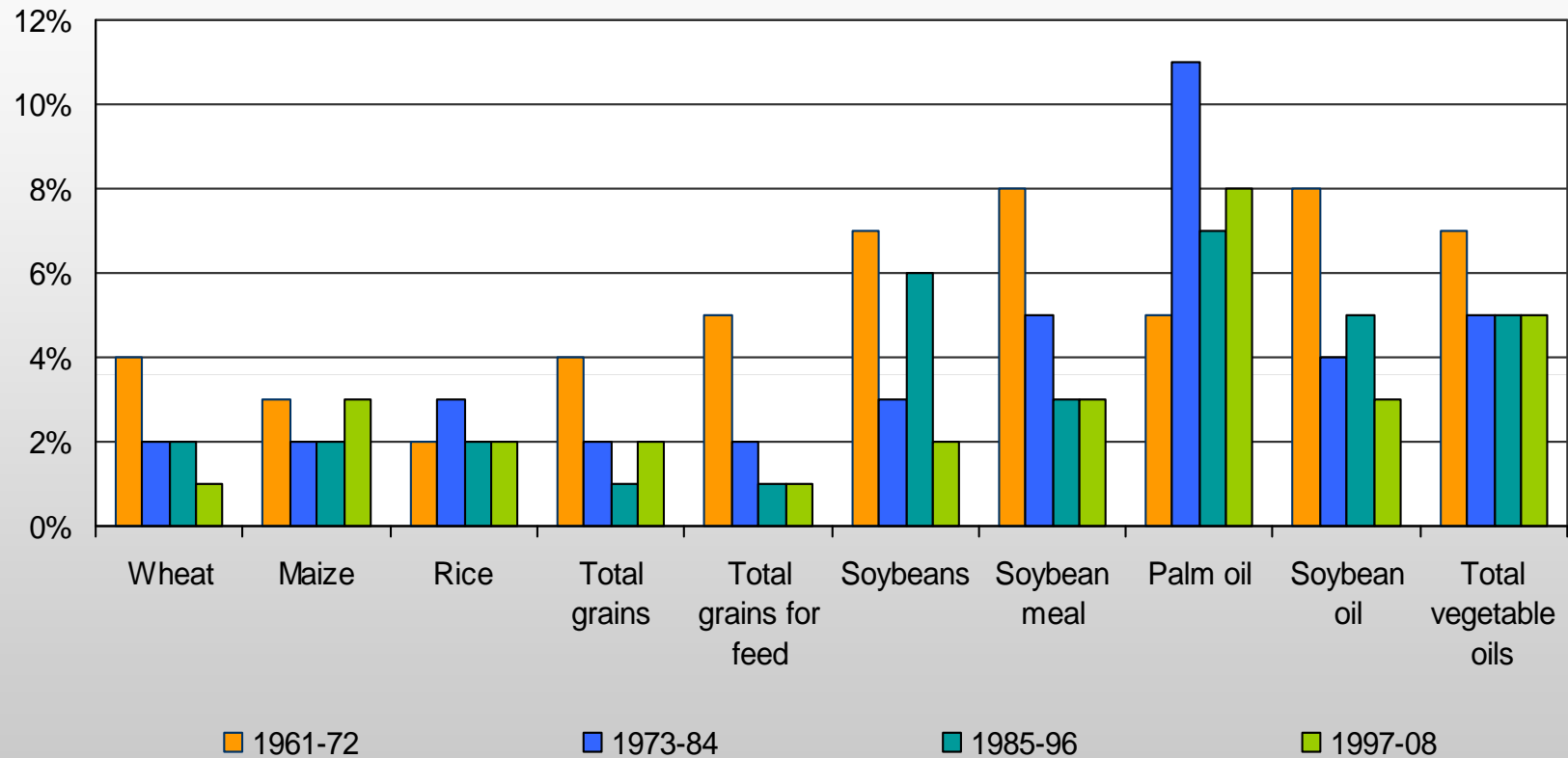
Sources: USDA, FAO

Is volatility driven by food demand patterns?

1. The annual rate of demand growth has decreased over the last 50 years for most products and countries
2. Notable exceptions are vegetable oils, and recently dairy products and maize
3. Compared to demand growth rates, crops yield growth rates are slowing down faster
4. Energy and minerals/metals: Demand growth is on the increase since the mid 1980s (iron, aluminium) and the mid 1990s (crude oil)

World consumption growth - crops

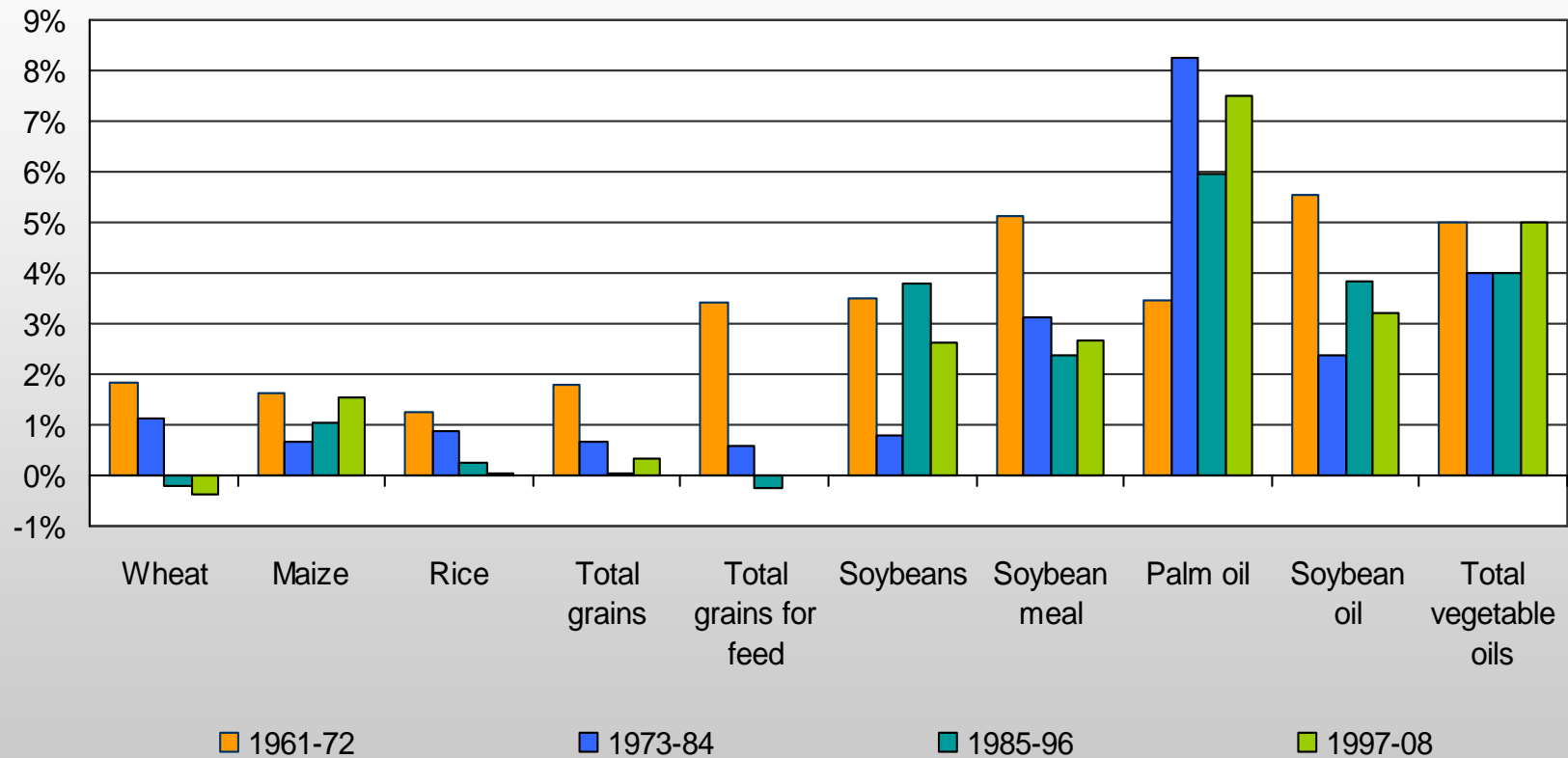
Annual % rate of growth in period



Sources: FAO; European Commission – Eurostat and DG Agriculture and Rural Development; USDA

World p.c. consumption growth - crops

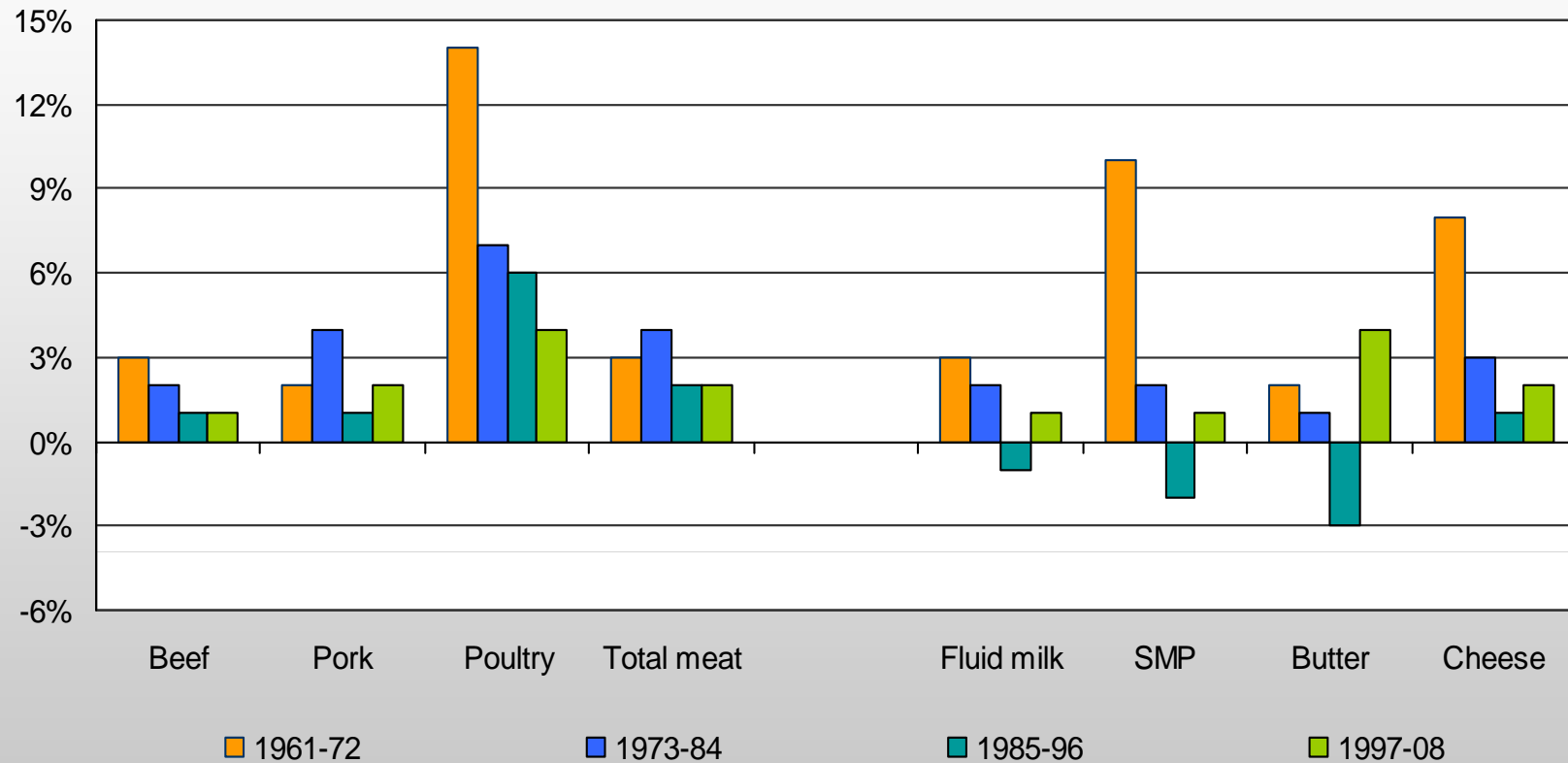
Annual % rate of growth in period



Sources: FAO; European Commission – Eurostat and DG Agriculture and Rural Development; USDA

World consumption growth - livestock

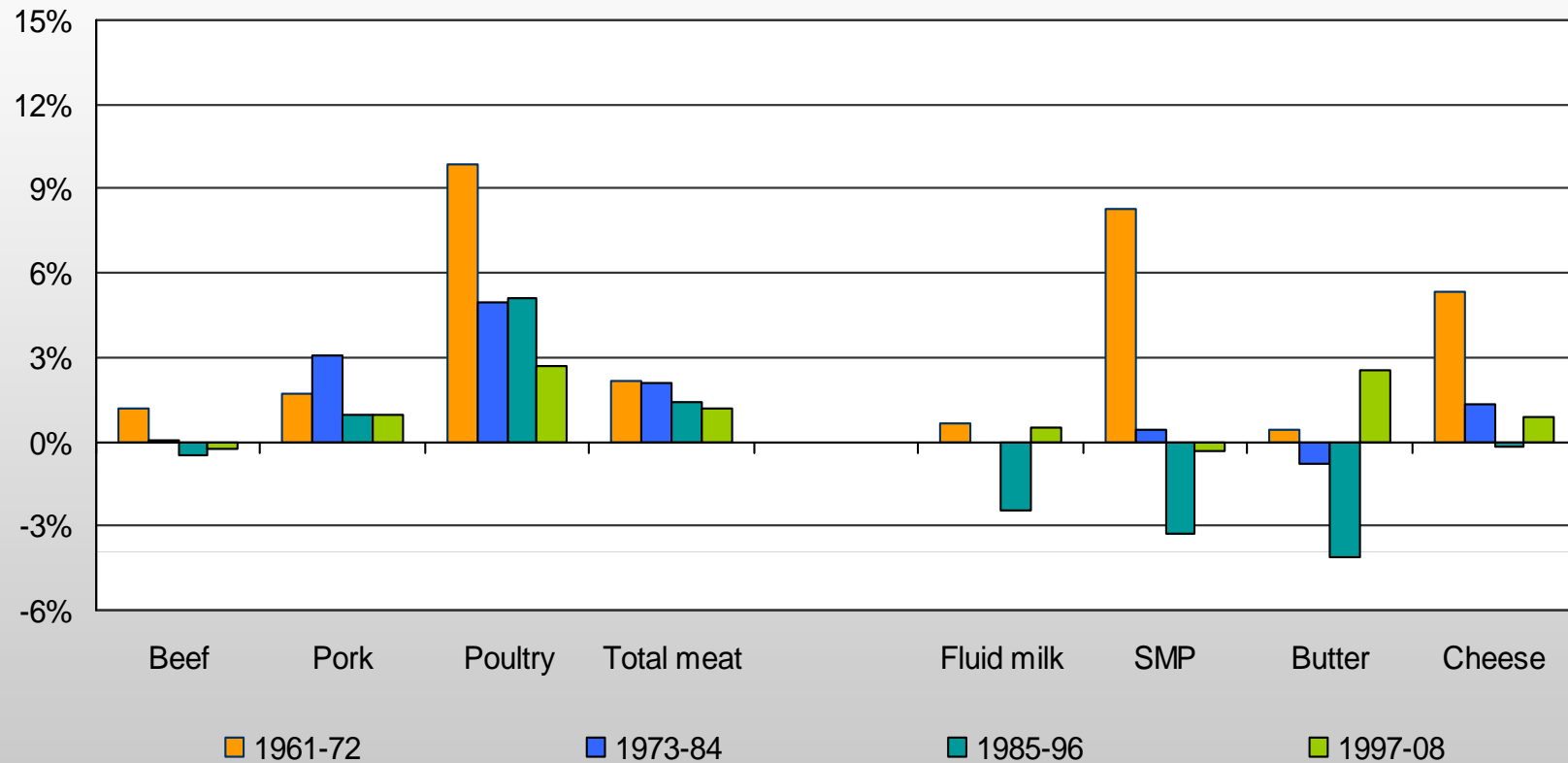
Annual % rate of growth in period



Sources: FAO; European Commission – Eurostat and DG Agriculture and Rural Development; USDA

World p.c. consumption growth - livestock

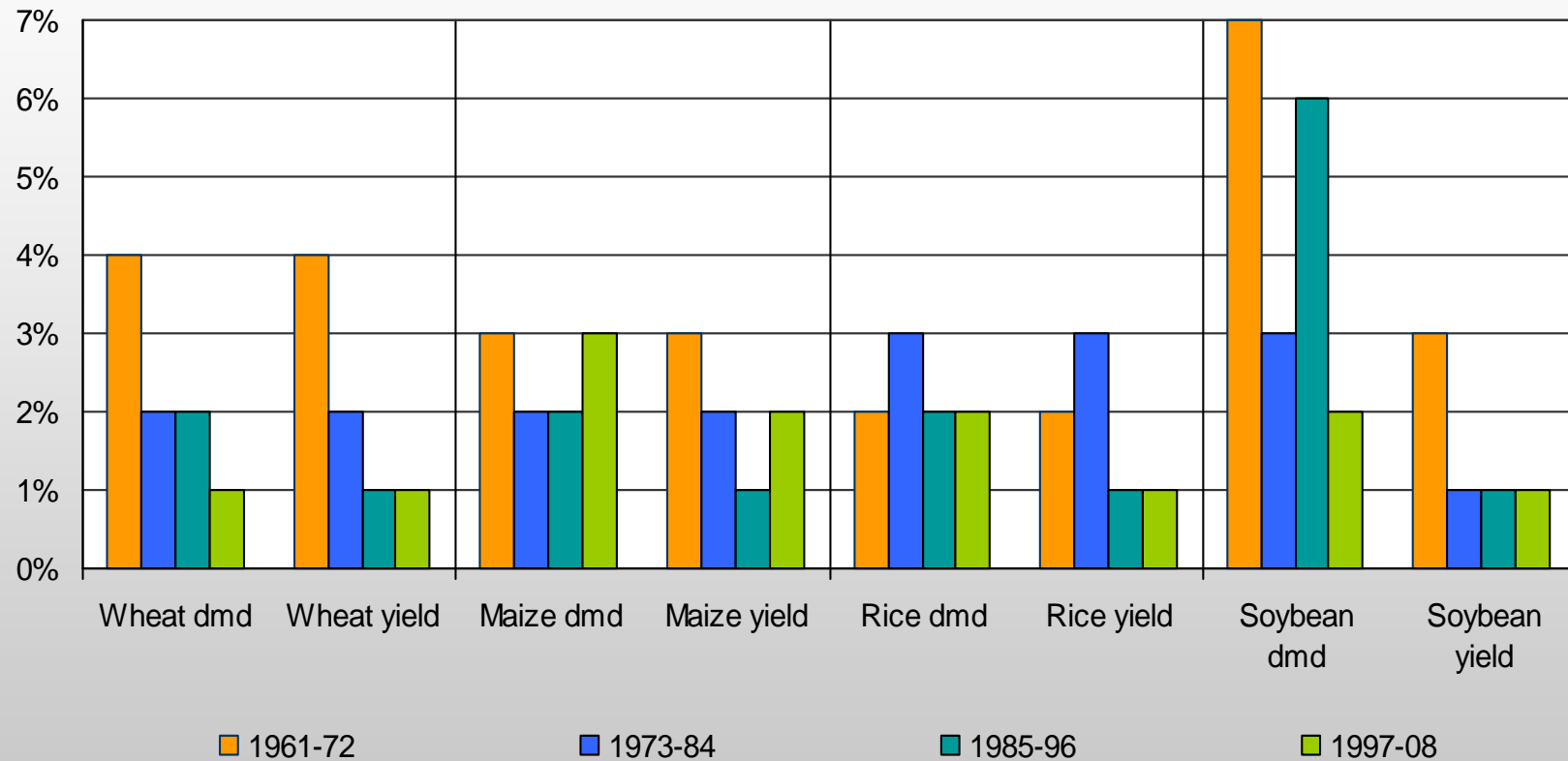
Annual % rate of growth in period



Sources: FAO; European Commission – Eurostat and DG Agriculture and Rural Development; USDA

Comparing consumption and yield growth

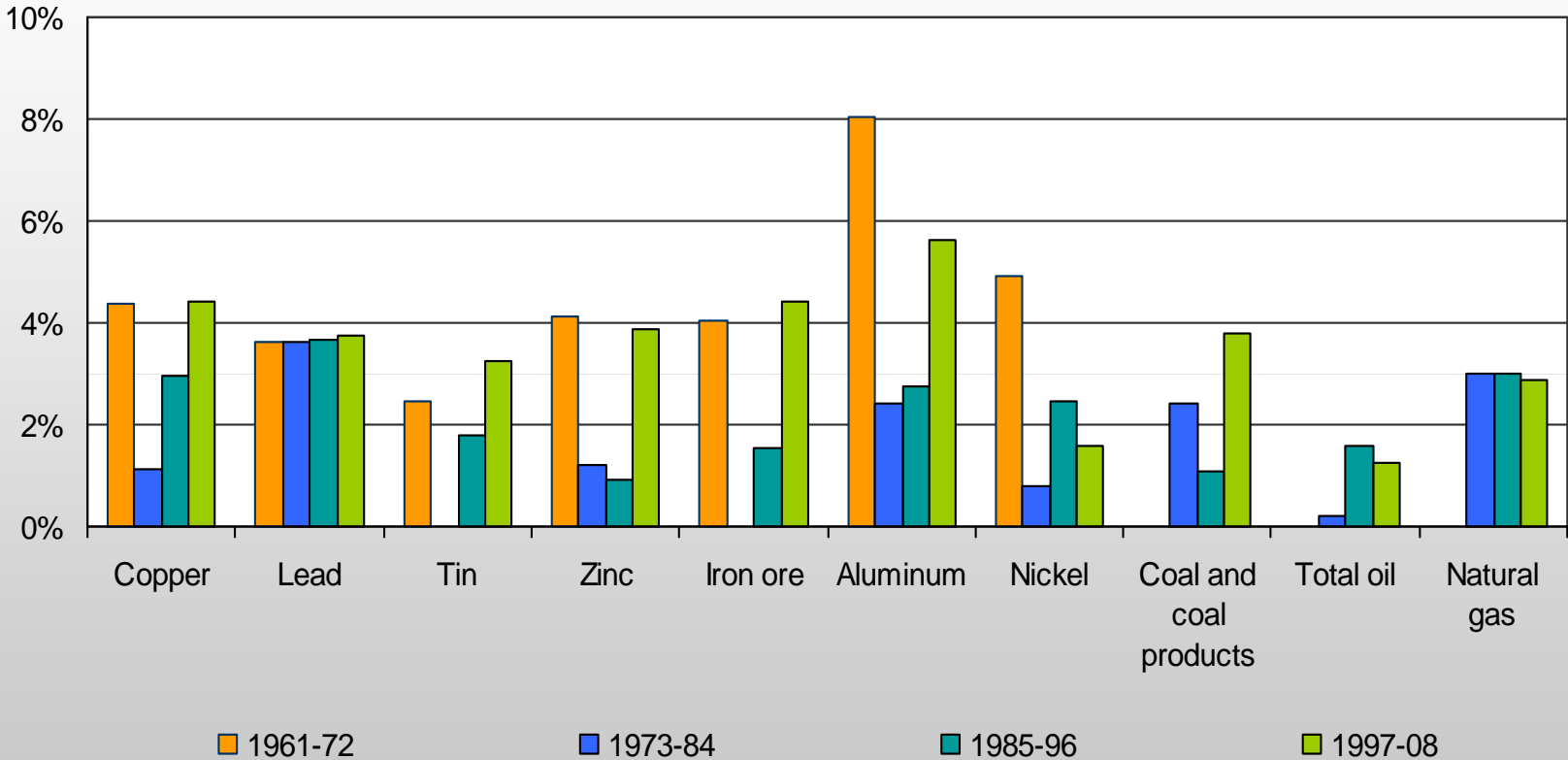
Annual % rate of growth in period



Sources: FAO; European Commission – Eurostat and DG Agriculture and Rural Development; USDA

Consumption in metals, minerals, energy

Annual % rate of growth in period



Sources: FAO; European Commission – Eurostat and DG Agriculture and Rural Development; USDA

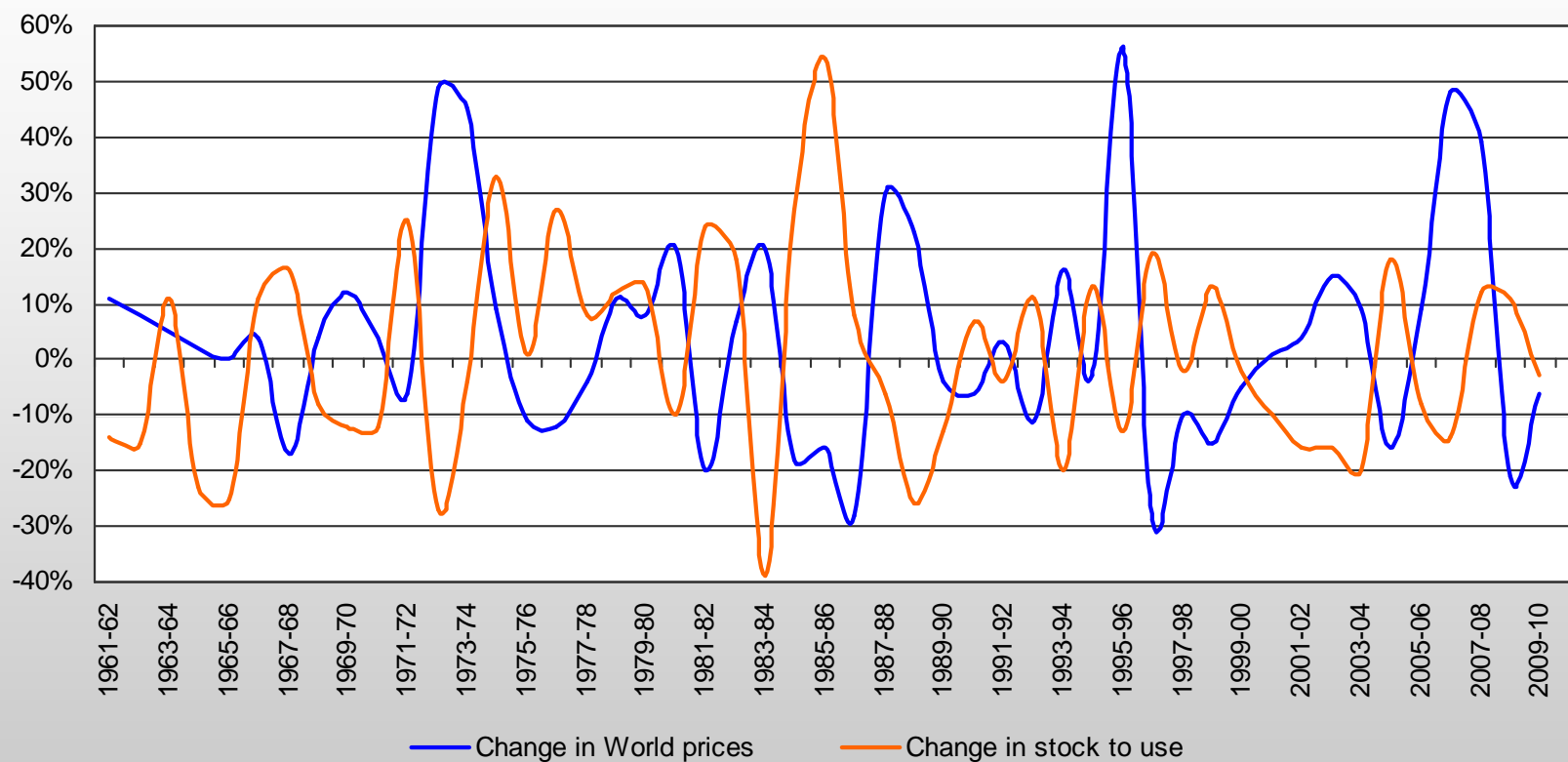


Are prices more responsive to stock changes?

1. A certain increase in the responsiveness of prices to stock changes can be observed for the main crops (wheat, maize, soybean) in the two past decades
2. Sugar prices on the other hand were more sensitive to stock changes in the 70s and 80s than recently
3. No strong pattern for rice and vegetable oils

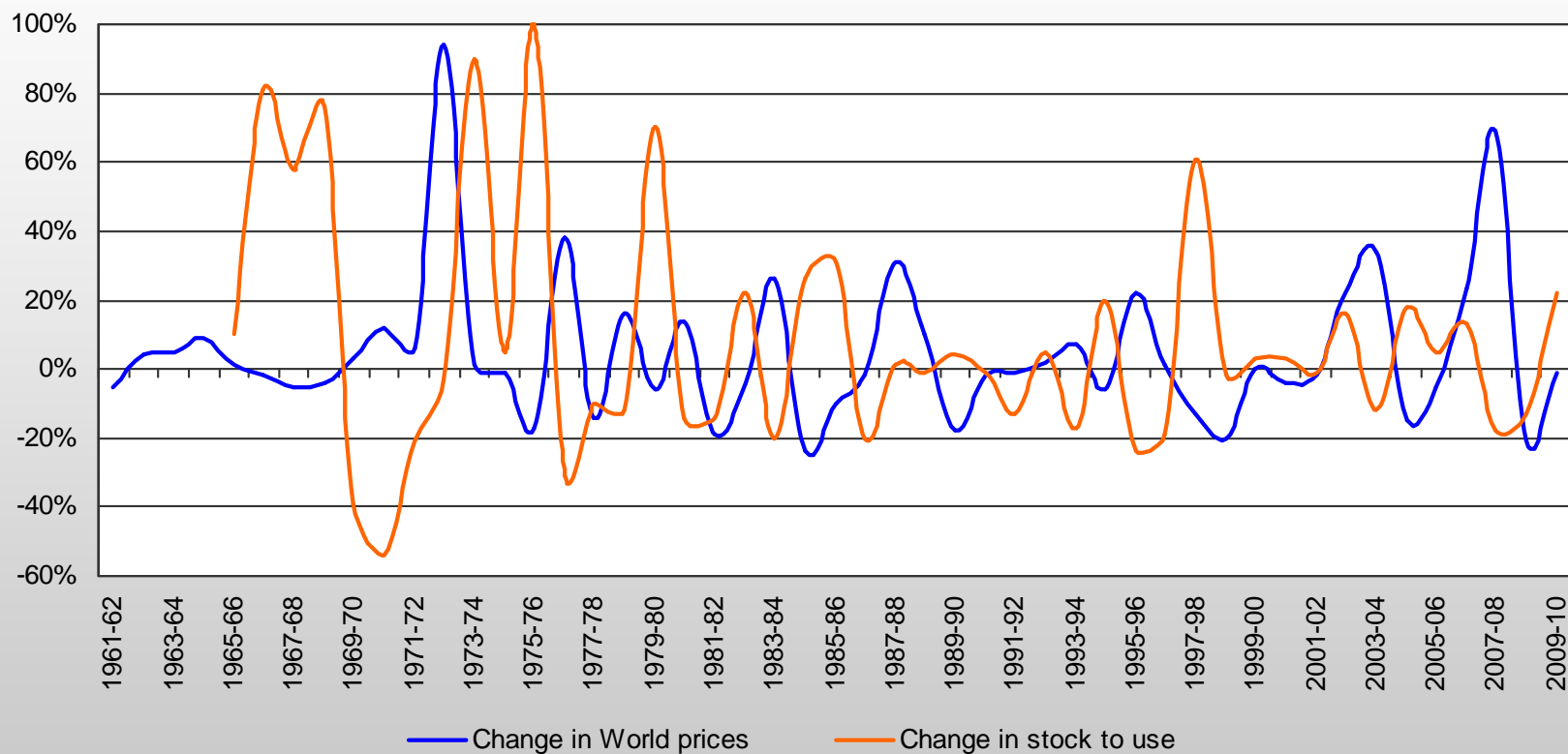
Work in progress to identify impact of energy link

Stock-to-use and prices - maize



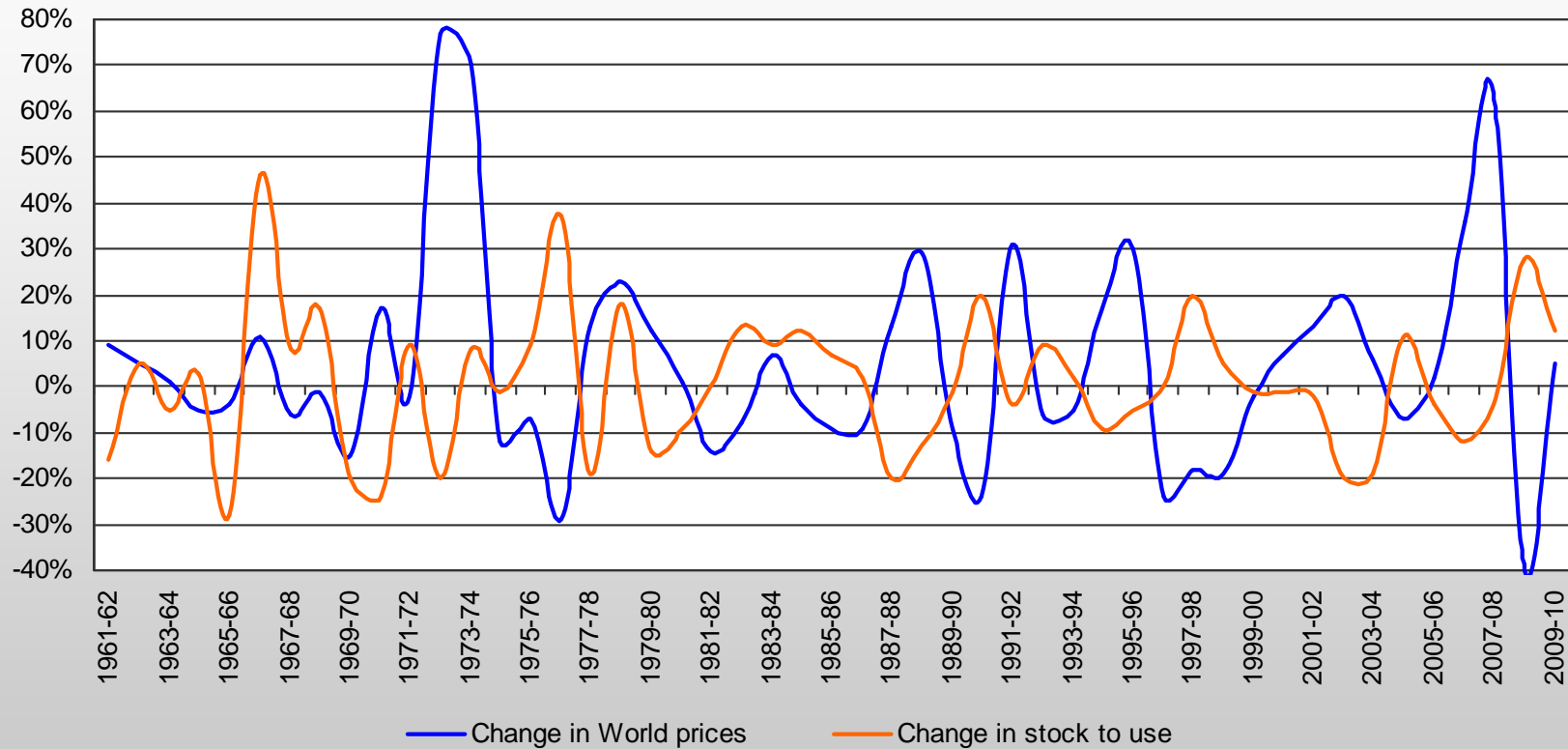
Source: World Bank, season prices, USA Y2, and Informa Economics World Balances

Stock-to-use and prices - soybeans



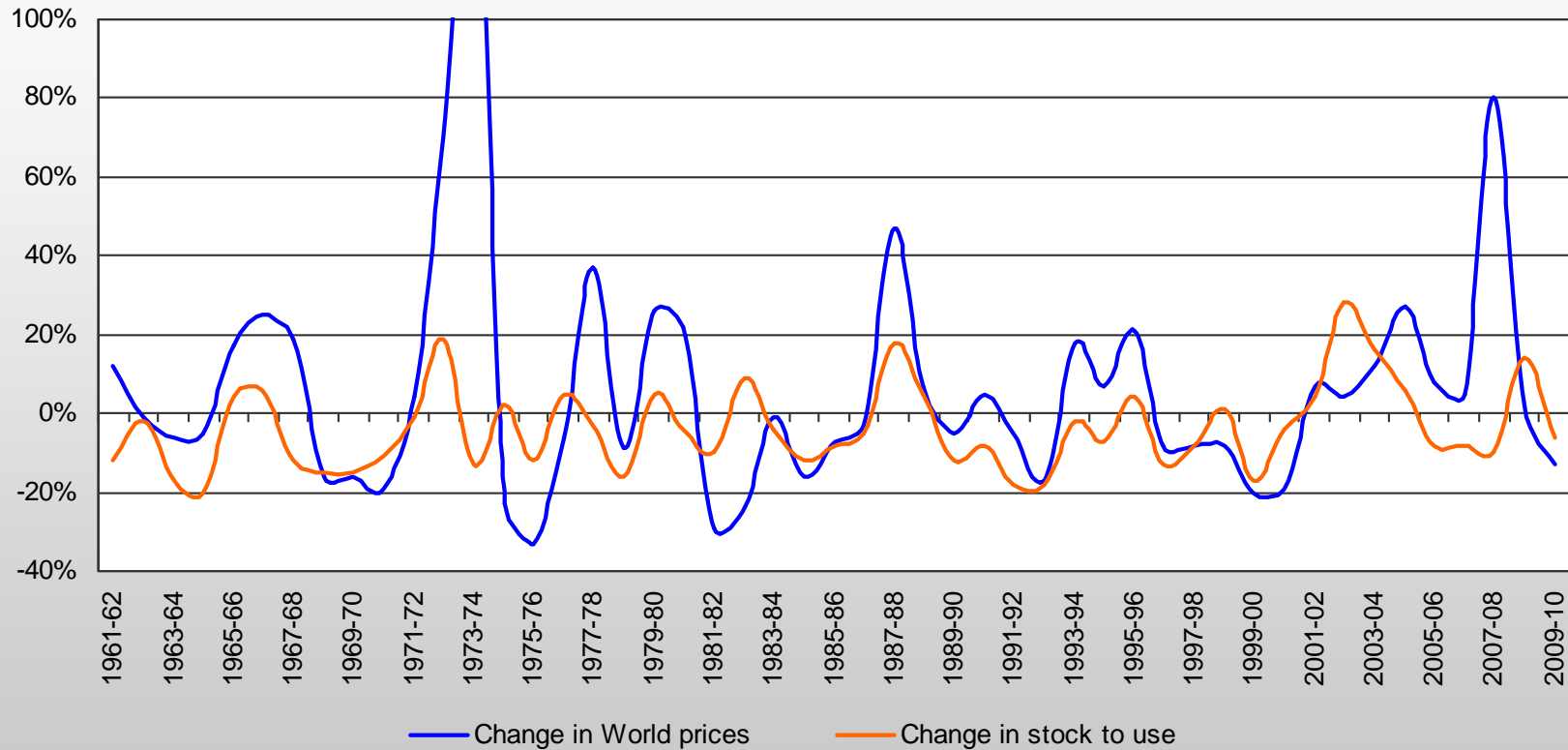
Source: World Bank, season prices Rotterdam CIF, and Informa Economics World Balances

Stock-to-use and prices - wheat



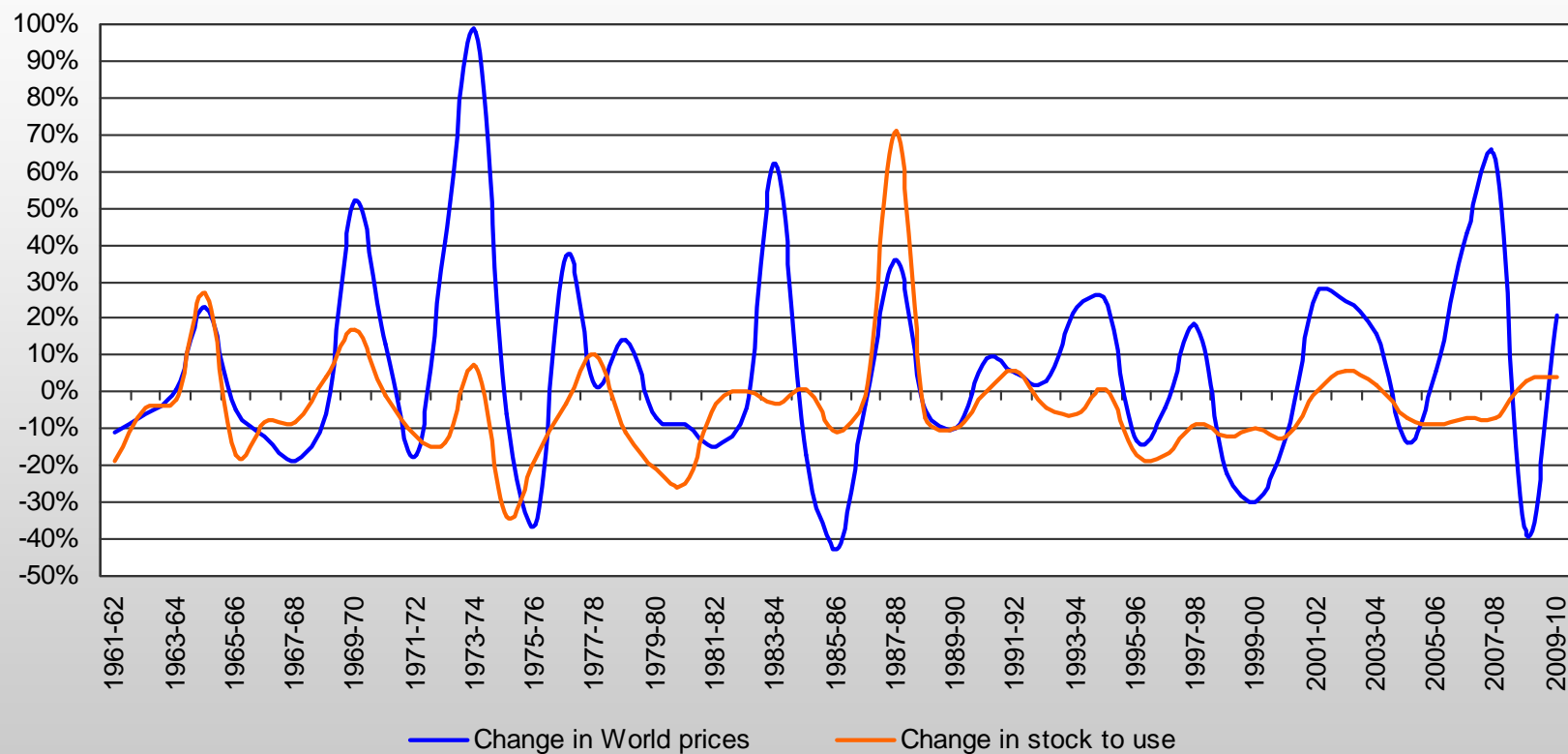
Source: World Bank, season prices, USA SRW, and Informa Economics World Balances

Stock-to-use and prices - rice



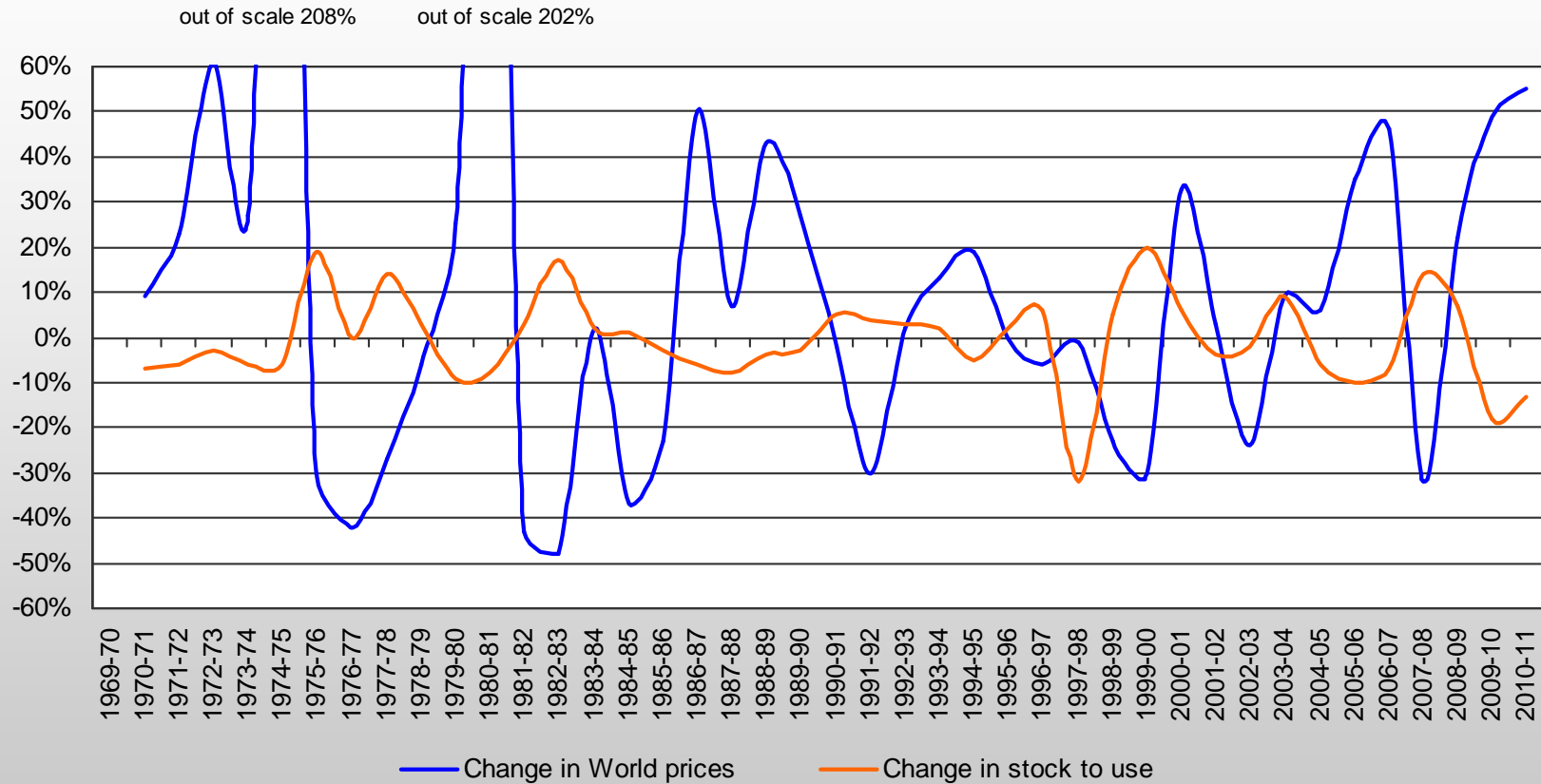
Source: World Bank, season prices, FAO balances (from 2008 OECD/FAO Outlook 2010-2019) for stock changes to use

Stock-to-use and prices – vegetable oils



Source: World Bank, season prices production weighted average between palm oil and soybean oil, FAO balances (from 2008 oilworld annual 2010) for stock changes to use including palm oil, soybean oil, sunflower oil and rapeseed oil

Stock-to-use and prices – white sugar



Source: ISO

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Main challenges for farm policies

Agriculture faces a major cost-driven commodity price boom

- *the “baseline” outlook of agricultural markets is full of major uncertainties*
- *the energy link weighs heavily, directly and indirectly, on production costs*
- *the terms of trade for world agriculture deteriorated significantly with the price boom*

Economic crisis and climate change introduces new challenges

- *price volatility and extreme weather events add more uncertainty to the sector*
- *environmental and climate change targets depend on and influence farm policies*
- *economic crisis impacts upon agriculture on both supply (costs) and demand (prices)*

Productivity growth has slowed down; trend needs to be reversed

- *Need to distinguish endogenous from exogenous factors affecting agriculture*
- *invest not just in new technology, but also in better spreading existing best practices*
- *put the link of private and public goods delivery at core of farm policy debate*

Some tentative conclusions for the CAP

Food security has become a worldwide concern

- *the EU context of food security is not linked to risks about the supply of food*
- *EU food security relies on the environmental and regional balance of its production*
- *market signals should dictate what to produce, policies should affect how to produce*

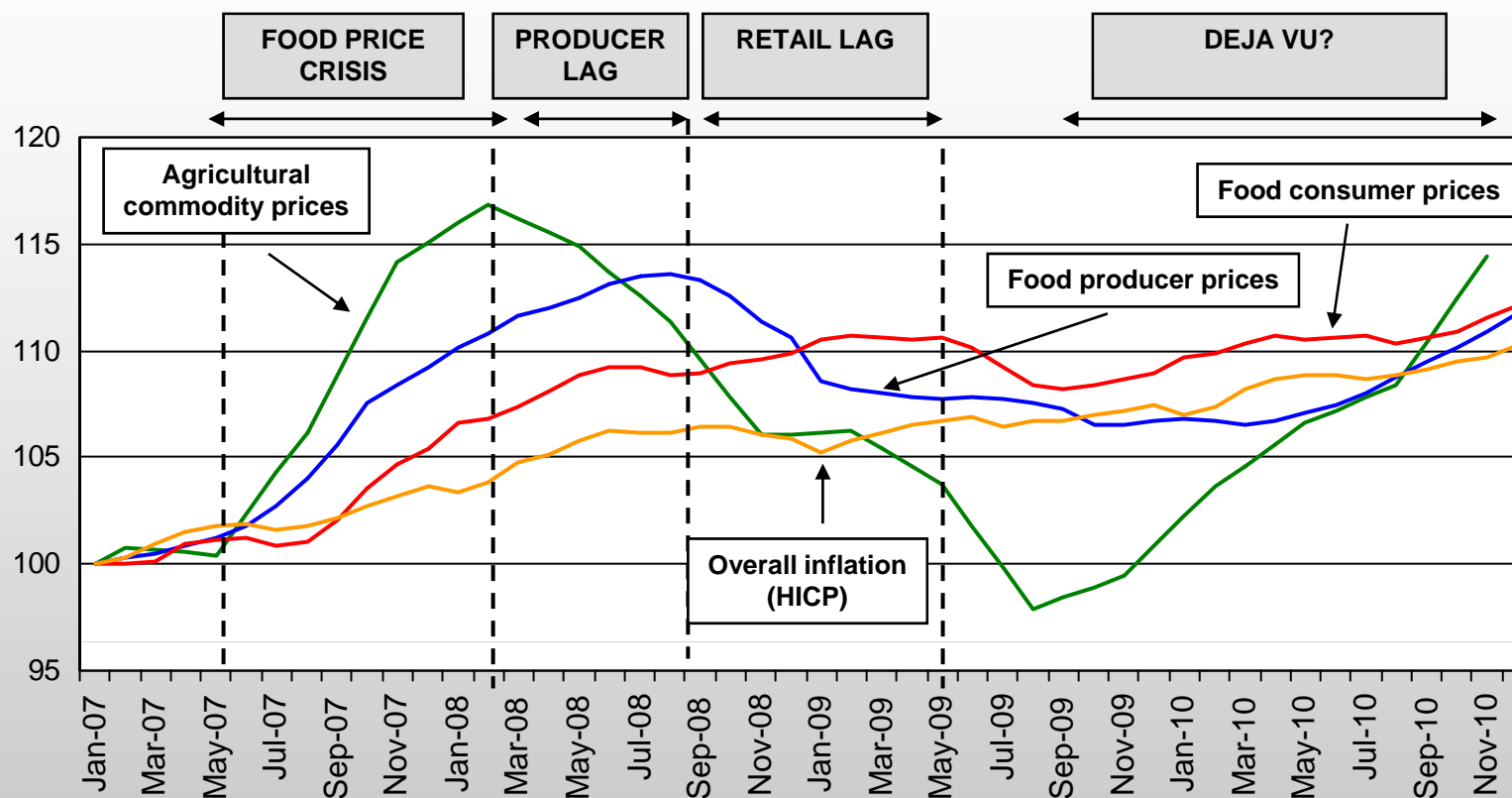
Price volatility is expected to stay high in the future

- *both output and input price levels in agriculture are expected higher than past trends*
- *price volatility has markedly increased and productivity slowed down*
- *farm income will also be more volatile in the presence of current expectations*

Food chain transparency needs to be improved

- *the functioning of the food chain shows signs of asymmetric price movements*
- *the bargaining power of producers is weakened, and results in loss of value share*
- *for market orientation to be effective, transparency in price formation is essential*

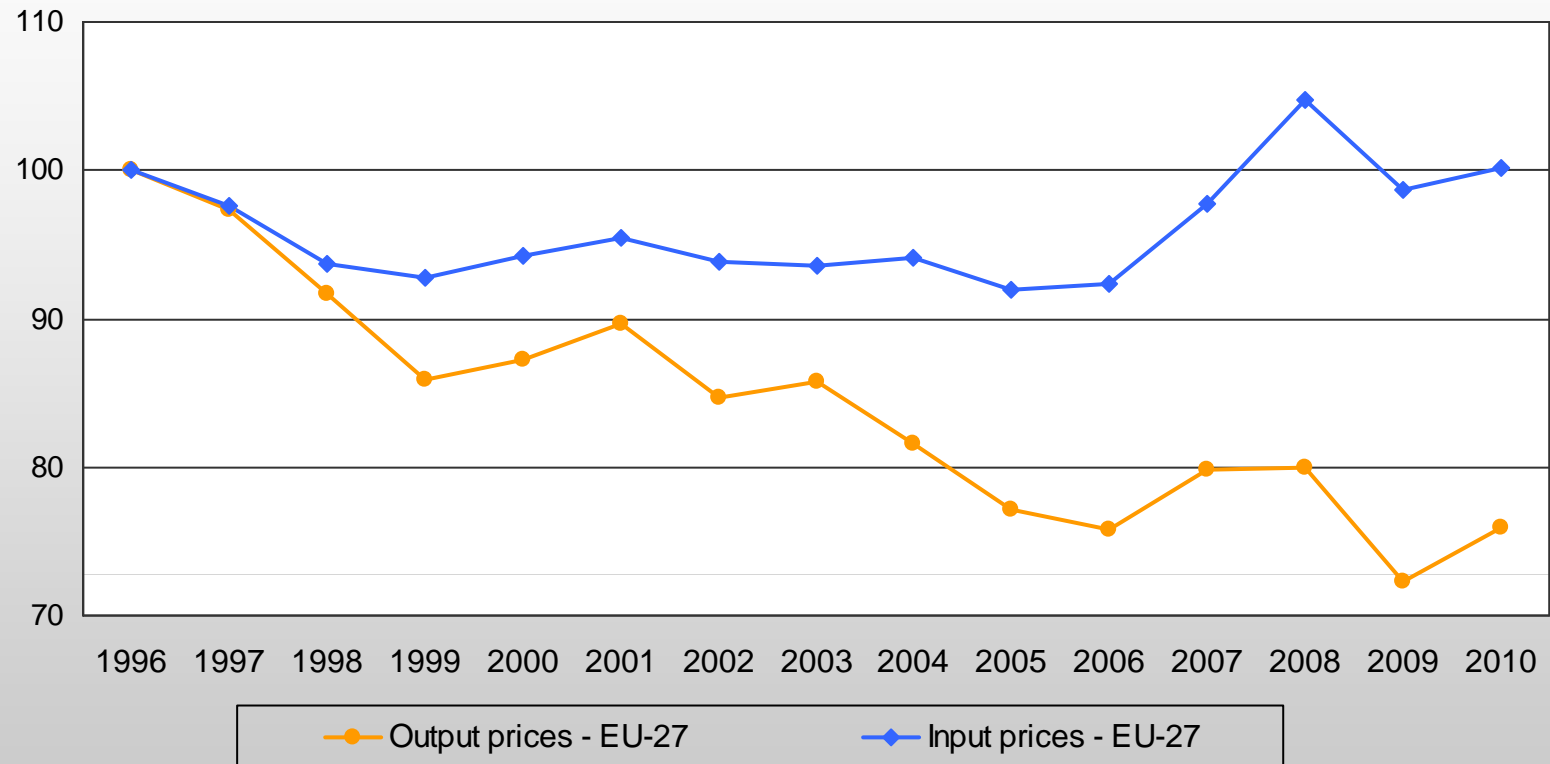
Price developments in the EU food chain



Source: European Commission – DG Economic and Financial Affairs, based on Eurostat data

EU agricultural prices

(real price index, 1996 = 100)



Source: Eurostat

What impact on rural areas?

Potential for food demand pattern changes post-crisis

- *it is not so much food quantity but food composition that is affected*
- *rural areas are more resilient in covering their food demand needs*
- *changes in demand pattern changes elsewhere are the real challenge*

Food supply responses become more uncertain

- *rural areas with diversity in agricultural production in better shape*
- *extensive livestock production areas face more challenges with less alternatives*
- *Structural adjustment needs increase and become more linked to overall economy*

Sustainability at the core of future responses

- *productivity gap needs to be addressed with environmental concerns in mind*
- *innovation results need to spread more evenly in all rural areas*
- *climate change impact uncertain at local level, knowledge gap needs to be addressed*

Thank you

<http://ec.europa.eu/agriculture>



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