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Dairy Markets Volatility – Introduction and Overview

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Overview

- Price Volatility– What it is?
- Price Volatility–Causes and Consequences
- Why Ireland May be More Exposed
- Price Volatility– Management
- Conclusions

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Types of Risk

- Weather risks
- Livestock or Plant Diseases Risk.
- Financial Risk
- Asset Risk (Fire, theft etc)
- Policy Risk
- Legal Risk
- Currency Risk
- Market Risk
- **Price Risk**

Definition of Price Volatility

Price volatility is a **directionless** measure of the extent of the variability of a price.

(Gilbert and Morgan 2010)

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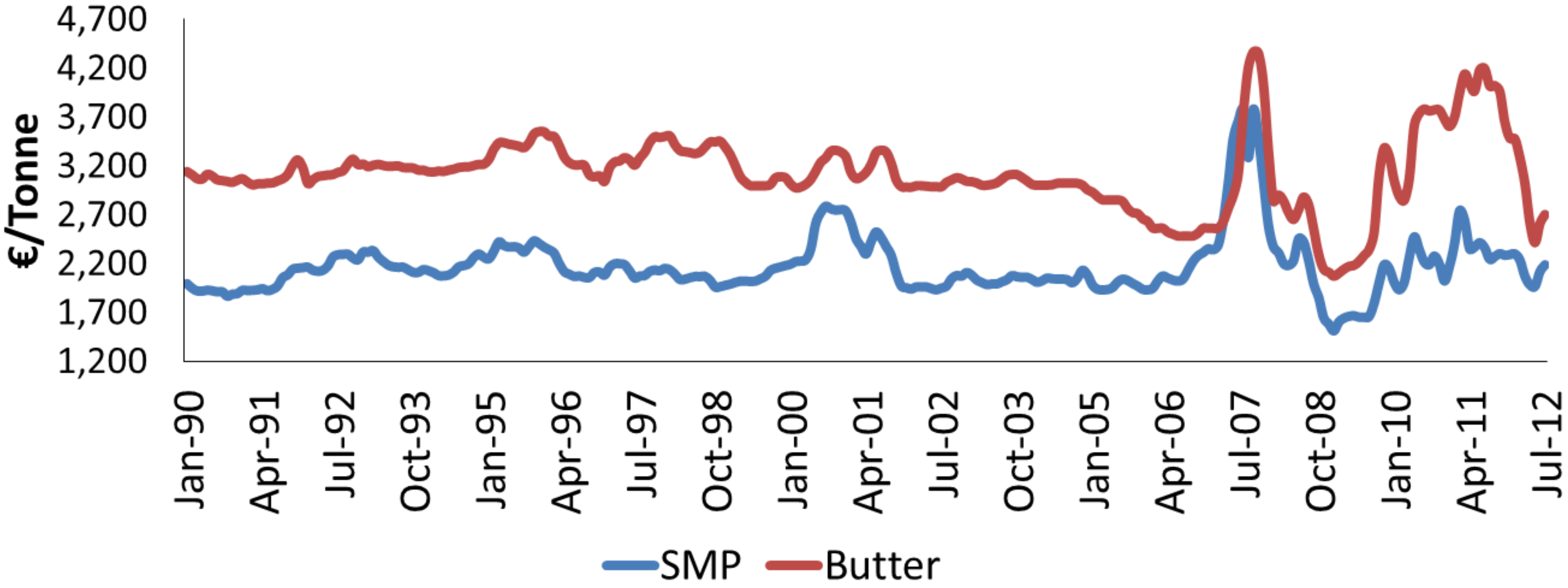
EU Dairy Commodity Prices



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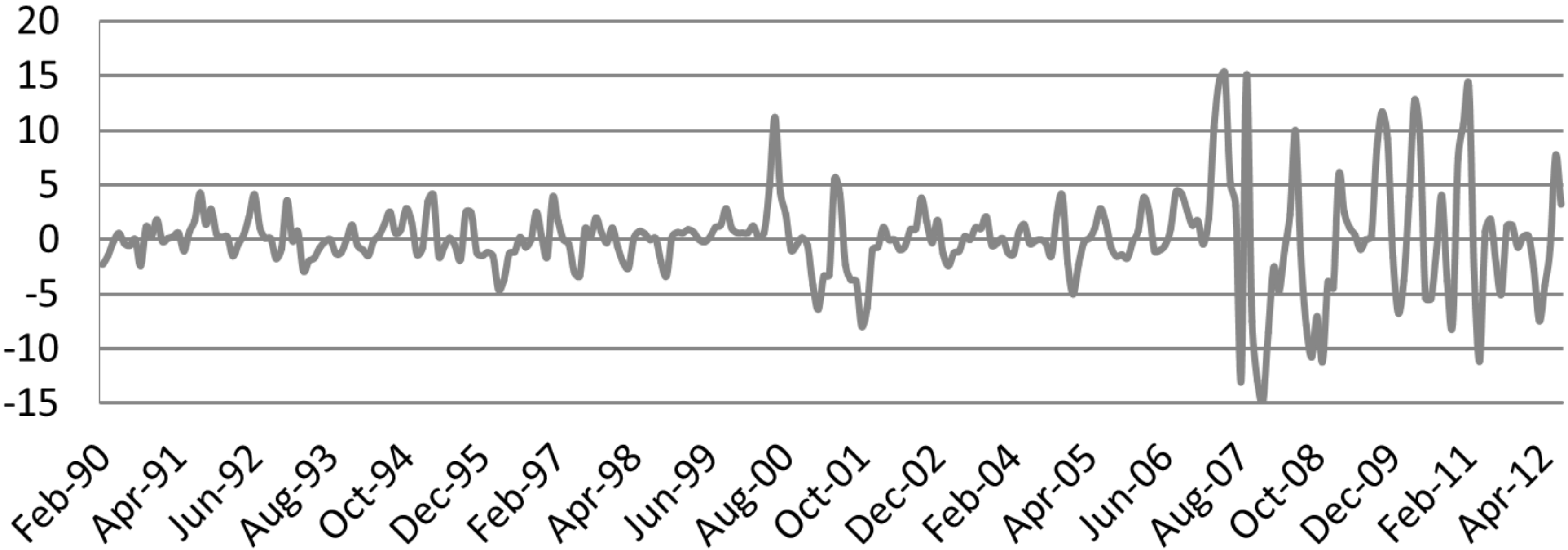
EU SMP One Month % Change



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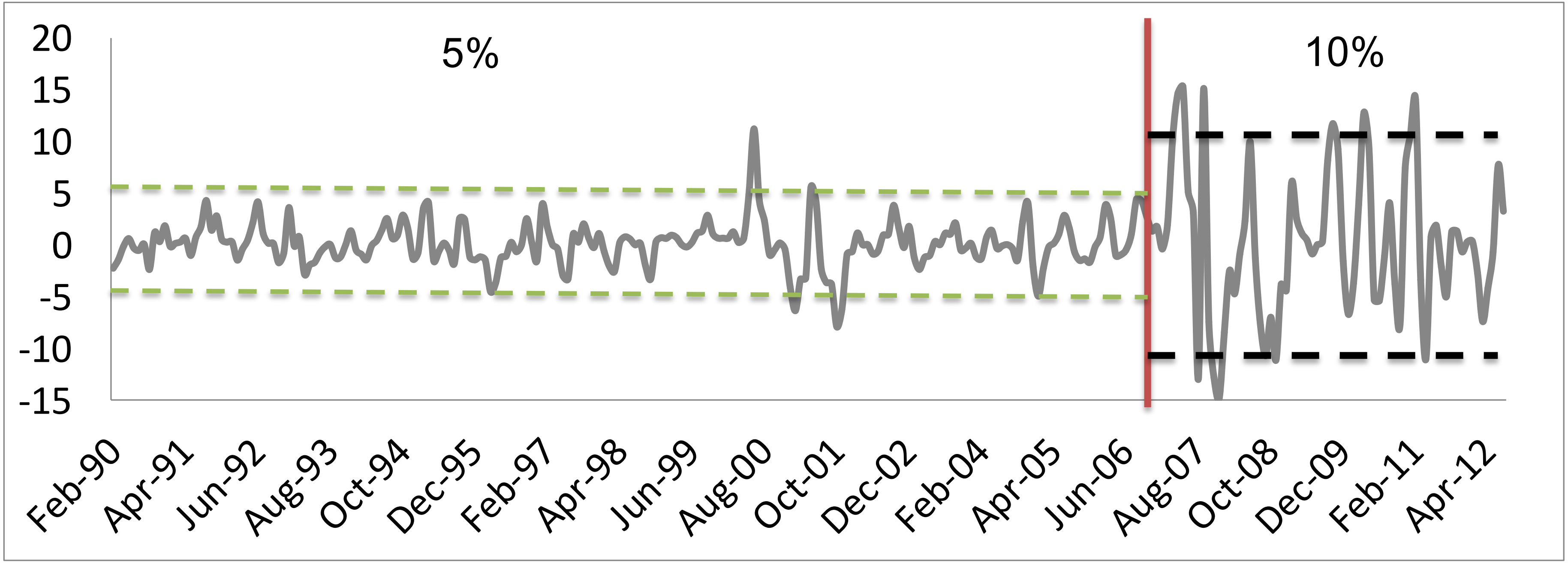
EU SMP One Month % Change



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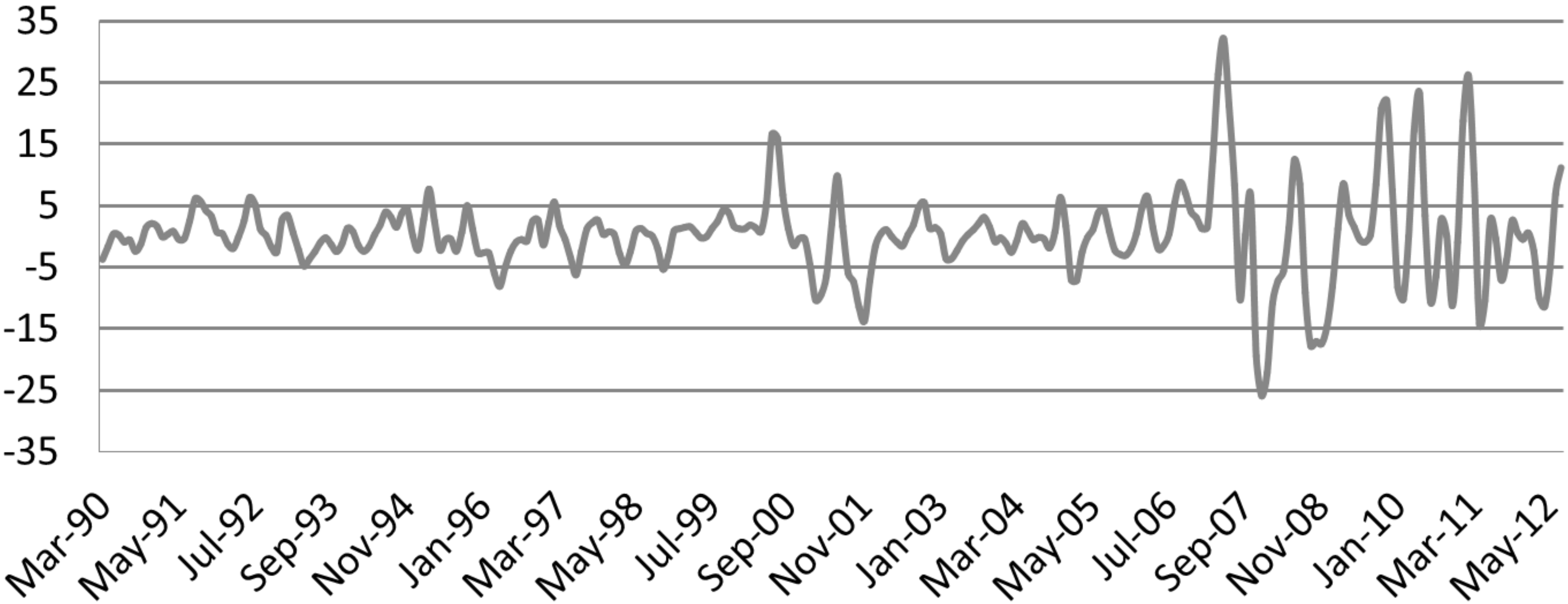
EU SMP Three Month % Change



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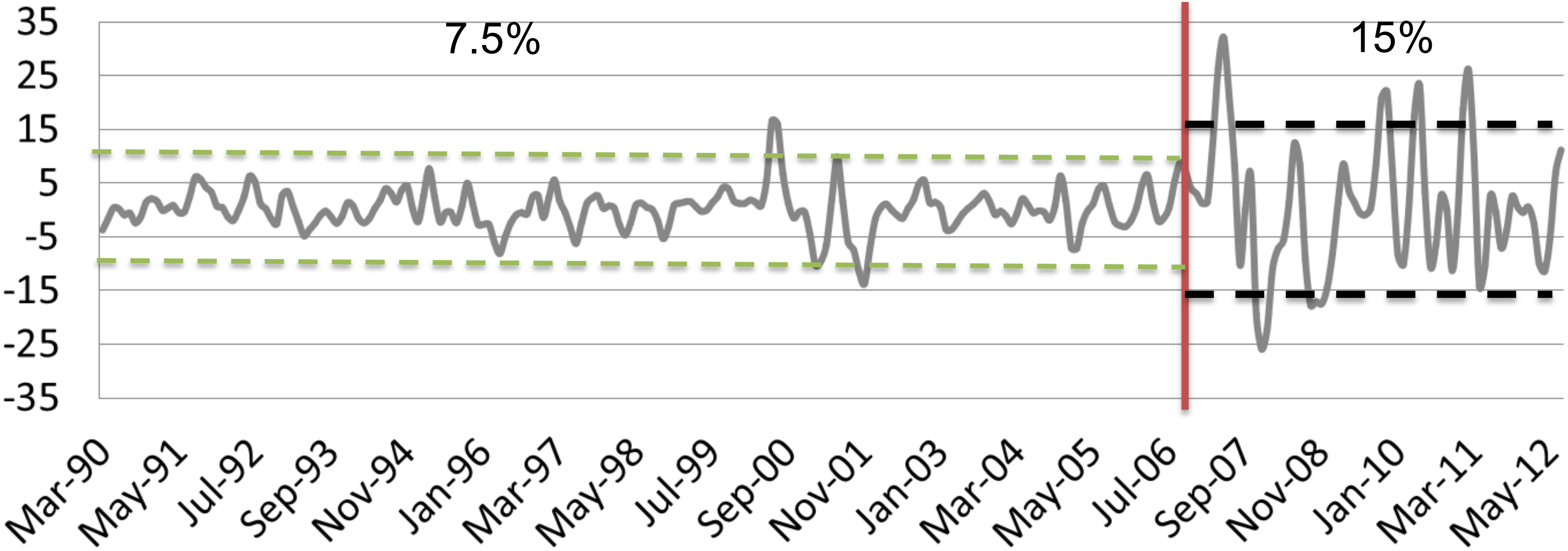
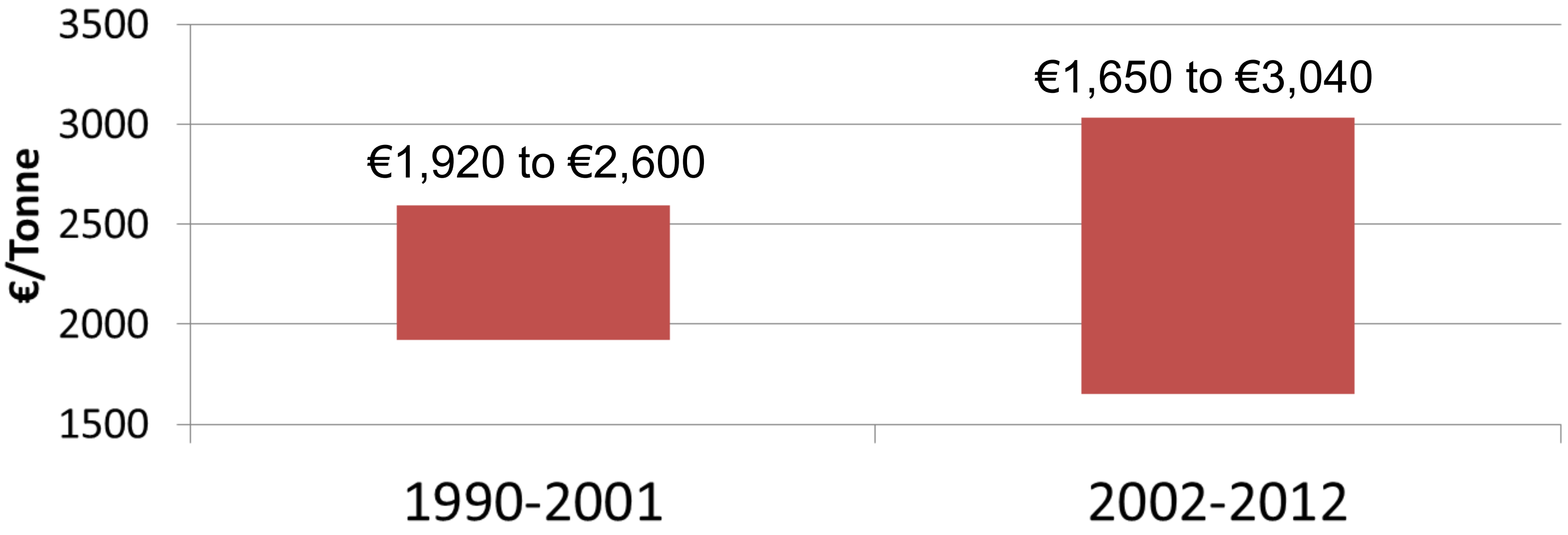
EU SMP Three Month % Change



Mid 90% Range SMP



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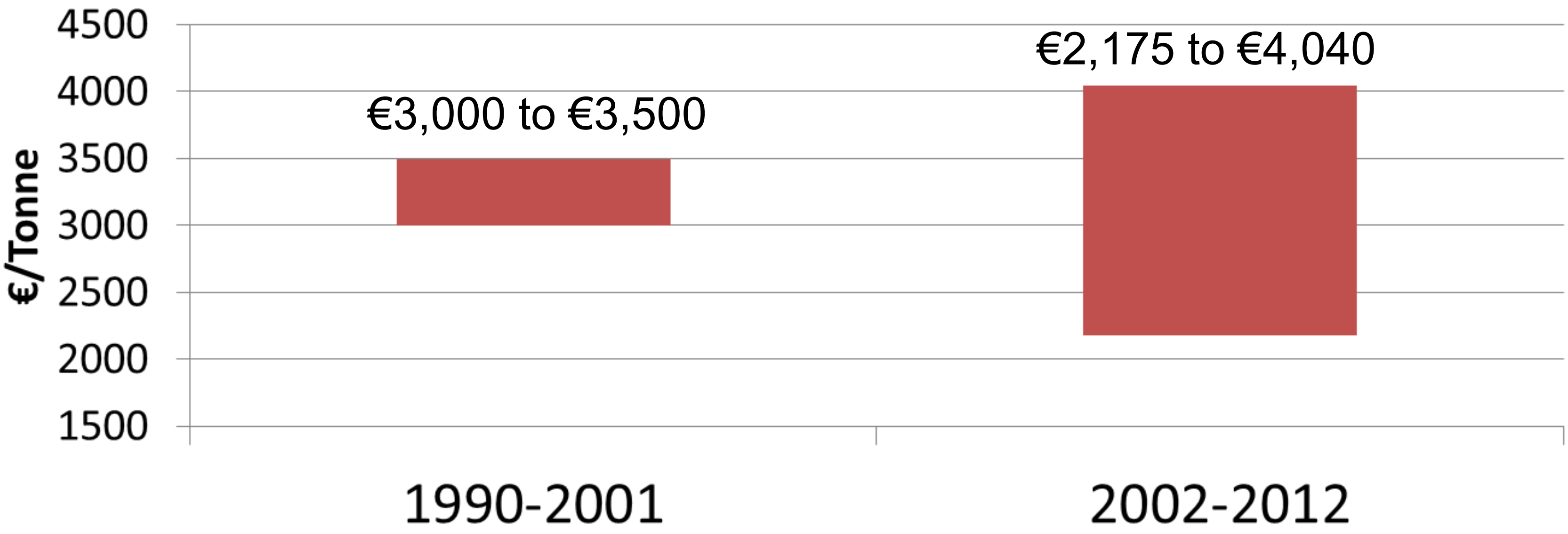
Mid 90% Range Butter



Consequences of Increased Price Volatility

- “Normal” volatility is desirable. It reflects changes in supply, demand and policy and provides price signals to facilitate efficient reallocation of resources.

- Extreme volatility is undesirable with many adverse consequences

Extreme Volatility – Adverse Consequences

- Cashflow/Planning
- Investment
- R&D
- Substitution

Buyers (ingredient and retail) prefer to do business with suppliers providing stability, price and volume (retail prices are sticky)

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Effect of Volatility on Irish Dairy Industry

- Average farm production is circa 250,000 litres
- Each 1 cent change is on average worth €2,500 to farm profit.
- At processor level
  - Butter production 140,000 tonnes
  - SMP production 70,000 tonnes
- €100 swing
  - Butter €14 Million
  - SMP €7 Million

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Causes of Price Volatility

- Economic Fundamentals,
  - Demand, Supply

- Policy Change
  - E.g. Luxembourg Agreement (2003)

- Market Speculation
  - Hedge Funds, Index Traders

Causes of Price Volatility – Economic Fundamentals

- Unique Characteristics of demand and supply for Dairy (and Food) Commodities i.e. Inelastic
  - Modest scarcity causes prices to be bid up to very high levels
  - Modest surplus causes prices to fall to very low levels to clear market
  - Modest scarcity or surplus are frequent occurrences (weather, disease etc)

- Impact further accentuated by low stocks
- **Production takes considerable time in agriculture**

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Why Ireland may be more exposed to volatility

- Harvest 2020 (50% Increase in milk output)
  - Financing expansion
  - Specialisation
  - New entrants
  - Volatile inputs
- Export dependence, especially 3rd country
  - Currency
  - Commodity focus
- The grass based nature of Irish milk production which is seasonal and conditioned by weather variations

Public Risk Management Options

- The “Old” CAP
  - Intervention Buying
  - Export Refunds
  - Import Levies
  - Subsidised Consumption
  - Aids to Private Storage
- Direct Payments
- Crisis Management

Other Risk Management Options

- Futures Markets
- Options (Put and Call)
- Over the Counter (OTC) Contracts
- Forward Contracting
- Insurance Products
- Mutual Funds

Private Risk Management Options Cont.

- These options are based on risk sharing or risk transfer so they will require
  - Data
  - Education
  - Support

Conclusions

- Volatility is a relatively new phenomenon.
- As well as being more volatile prices are reaching new highs and lows.
- Volatility affects the entire supply chain.
- Ireland may be more at risk from the adverse consequences

Conclusions Cont.

- There are both public and private solutions.
- Reward is competitive advantage.

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Thank You

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