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
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)
EU Dairy Commodity Prices
EU SMP One Month % Change
EU SMP One Month % Change

Mid 90% Range SMP

€1,920 to €2,600

€1,650 to €3,040

1990-2001

2002-2012
Mid 90% Range Butter

1990-2001: €3,000 to €3,500
2002-2012: €2,175 to €4,040
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)
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
Causes of Price Volatility

• Economic Fundamentals,
  - Demand, Supply

• Policy Change

• 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
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.
Thank You

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