

Hedging Price Risk with LME Plastics Futures

6th October 2005 – Florence, Italy

Robert Sheldon

LME Business Development



LONDON METAL EXCHANGE

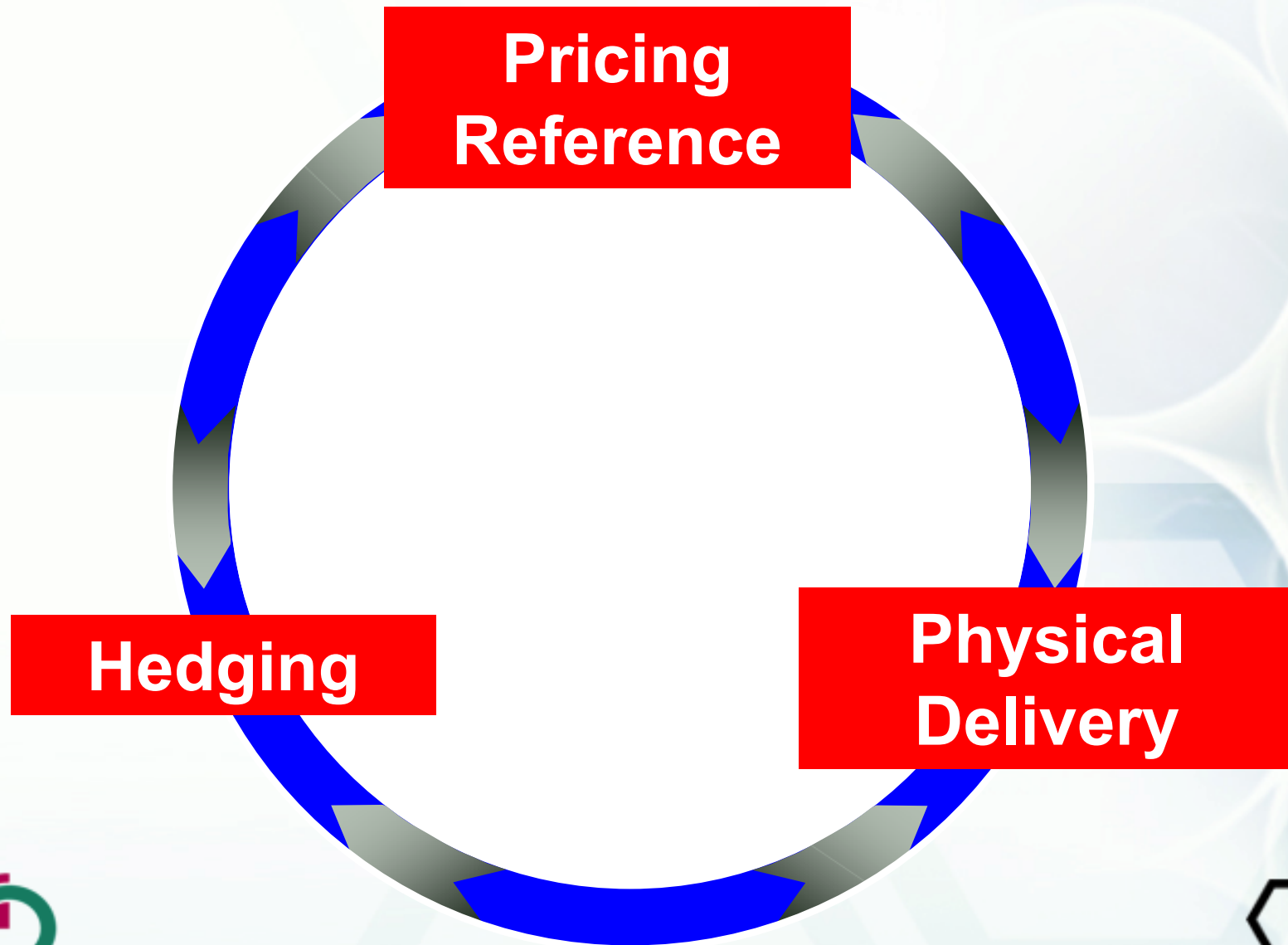
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The London Metal Exchange

- **A unique metals exchange**
 - Global marketplace
 - 95% turnover from overseas
 - LME turnover in excess of \$3500bn per annum
 - Flexible trading systems
 - Close to the market it serves

Key Roles of the LME



Futures

- Paper instrument for price risk management
- Offsets cash flow impact of price movements
- Supply and demand
- Transparency
- Industry participation

Hedging

- **Hedging**

- Establishing a position in a commodity futures market (LME) which is equal and opposite to a transaction made on a physical market

- **Hedging/Speculation**

- **A *hedger*** starts with a price exposure, buys or sells futures contracts, and therefore offsets the price exposure
- **A *speculator*** starts without price exposure, buys or sells futures contracts, and takes on price exposure

Myths about Futures

- Commoditisation
- Speculation
 - Short-term technical funds
 - Strategic investment funds
 - Investment funds
 - Market-makers
- Impact on customer relationships
- Add costs
- Increased volatility

Benefits of Hedging with Futures Contracts

- **Producer**
 - hedge unsold inventory, offer long-term fixed sales price and hedge any physical purchases
- **Converter**
 - lock in forward purchase price, offer long term fixed sales price and lock in a margin, hedge time difference between purchase and sale
- **Consumer**
 - lock in forward purchase price if supplier unable to
- **Distributor/Trader/Merchant**
 - hedge against price falls on inventories, swap physical material on location and brand basis, hedge physical purchase and sale

LME trading – the role of Members

- Professional brokerage and trading firms
- Regulated for capital and conduct of business
- Provide access to the market
- Provide access to the delivery mechanism
- Inter-member counterparty risk managed by independent central counterparty (LCH.Clearnet)

Why Plastics and futures?

Volatility - price risk occurs in the plastics chain

Customer requirements

- Raw materials priced intra-day, end products subject to annual or longer term pricing
- Plastics manufacturers can hedge raw materials
- Plastics consumers desire to hedge, but have no hedge mechanism without unacceptable basis risk

Market characteristics - size and profile

Why the LME and Plastics?

- Track record
- Regulated status
- Location and scope
- Many similarities to metals
 - Primary industrial raw material
 - Both are similar sized markets
 - Similar industry profile
 - Shared consumer industries
 - Similar transactional practices

Contract Specifications

Polypropylene (PP) – three grades at par at sellers option:

- General purpose injection moulding grade, MFR 12 (-2 / +3). Deliverable in **all** locations; Antwerp/Rotterdam, Houston/Baton Rouge, Singapore/Johor PTP.
- “Raffia” or fibre extrusions grade, MFR 3.4 (+/- 0.5). Only deliverable in Singapore.
- General purpose injection moulding grade, MFR 20 (+/- 3). Only deliverable in Houston, USA location.

Linear Low Density Polyethylene (LL)

- Butene copolymer general purpose blown film and blending grade. MFR 0.8 (-0.1 / +0.4). Deliverable in **all** locations.

Material ‘shelf life’ for LME delivery – 10 months

Trading Summary

- Trading Platforms and Hours:
 - Open Outcry, 2 Rings: 12:20 & 15:55 and Kerb trading sessions
 - LME Select: 07.00 – 19.00 London time
 - Inter-office telephone: 24 hours
- Trading for each month to 15 months forward
- Contract size:
 - 24.75mt (consisting of 18 pallets, each being 55 x 25kg bags)
- Currencies:
 - US dollars (also traded and cleared in Euro, Japanese Yen and Sterling)
- Trading ceases on last day of the month prior to delivery month
- Settlement Day – Third Wednesday of each month
- Clearing – through LCH.Clearnet

Brand and Warehouse Listing Requirements

- Producers
 - brands to be within LME specification
 - undertaking on intrinsic quality
- Warehouses
 - facilities in free trade zone
- Operational history
- ISO 9001:2000 compliant, or similar

Refer to www.lme.com for full list of approved producers and warehouses

Price Discovery

Current Price Discovery

- ICIS/Platts price reporting: price discovery via telephone polling of buyers and sellers

Exchange Pricing

- Transparent
- Globally accepted
- Market derived
- Pricing based on supply/demand and market intelligence

LME PP and LL contracts trading since 27 May 2005



The LME price

The LME price is for:-

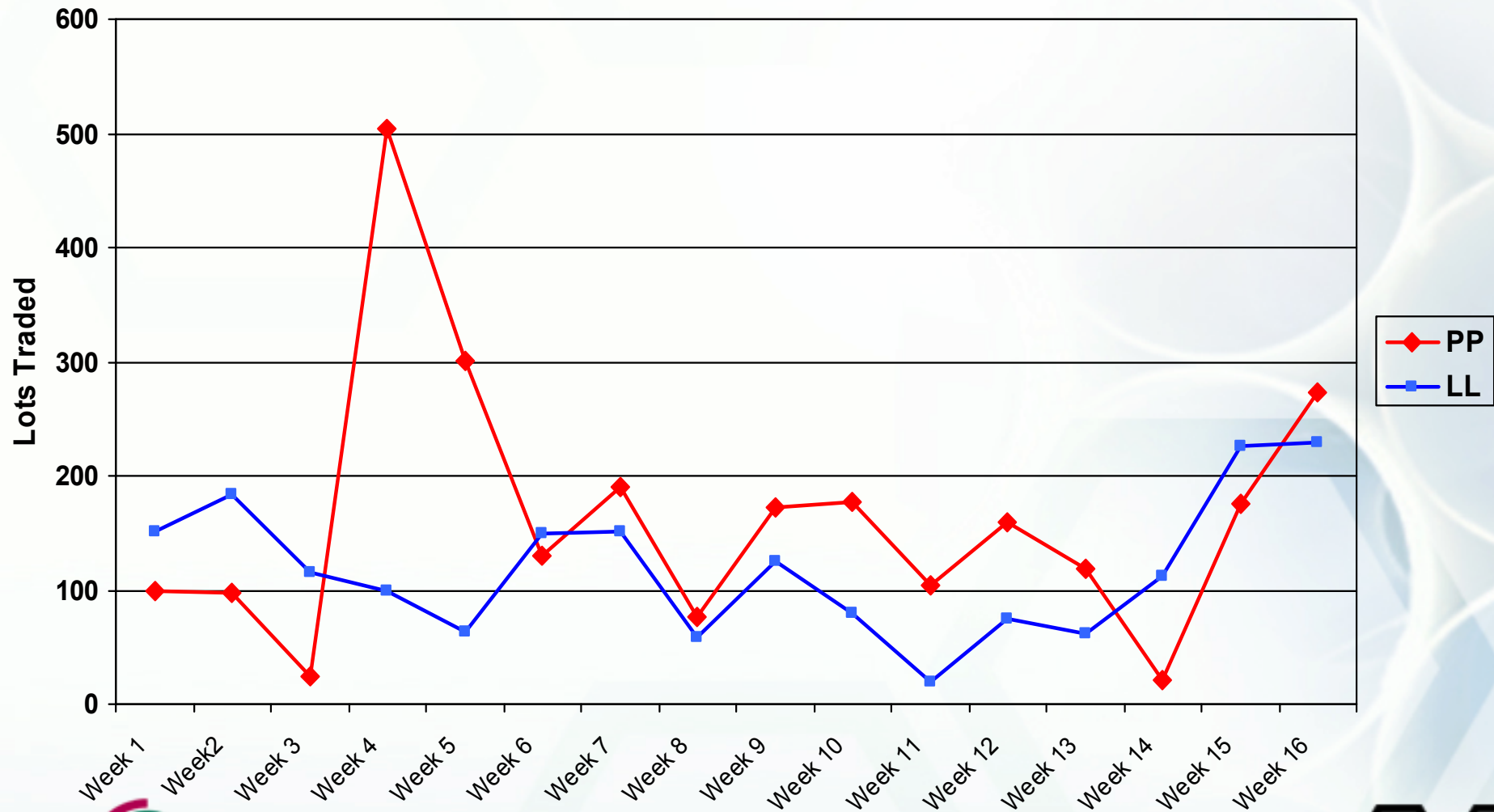
- The benchmark / marker grade
- Delivered in palletised bags
- Loaded onto flatbed or curtain sided road trucks
- At one of the LME approved delivery points
- Stored in FTZ / Fiscal Warehousing regime
- Choice of brand and location at sellers option

The plastics price

The price for normal physical sales, if using LME pricing as a basis will be the LME price adjusted for:-

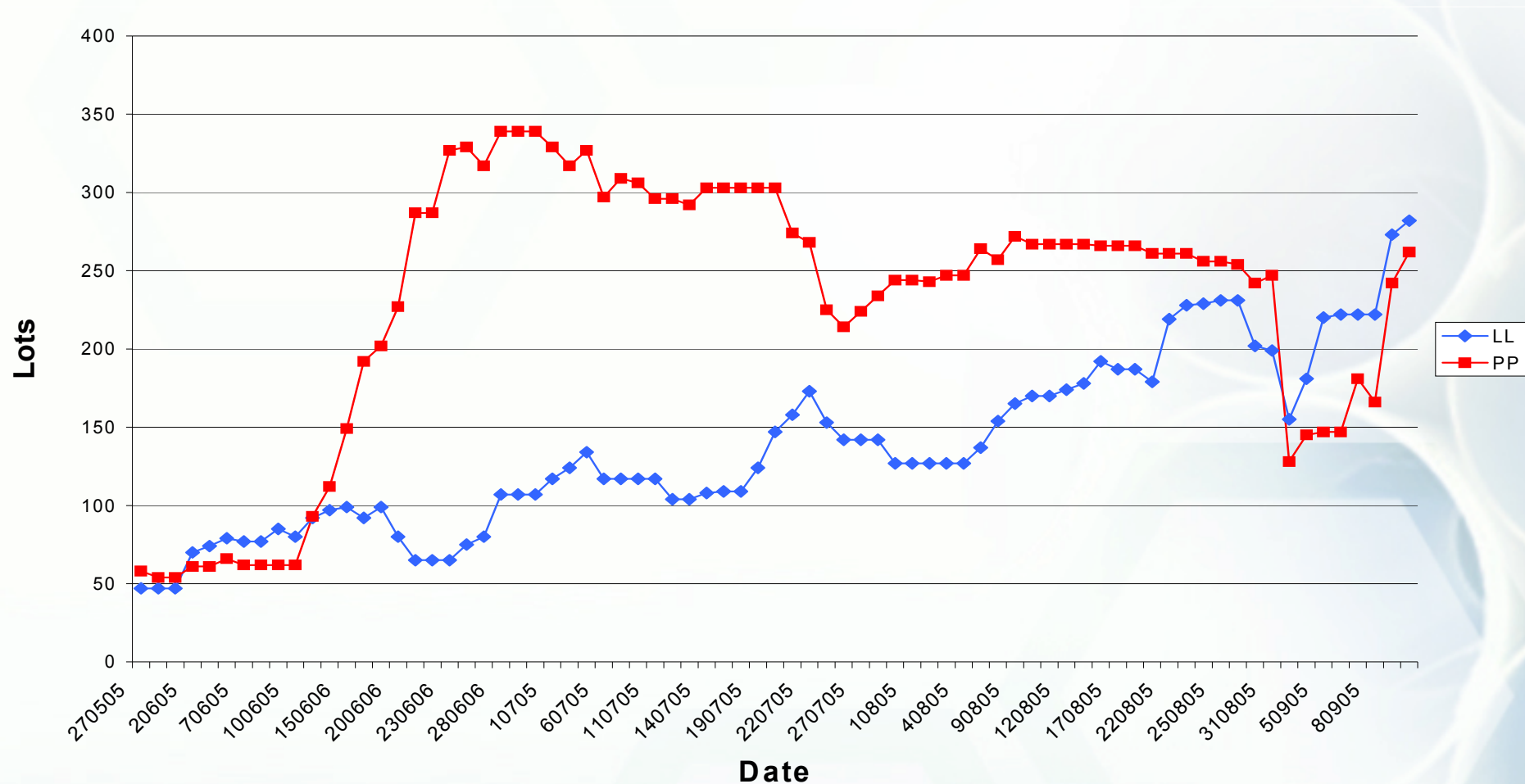
- Grade differential versus benchmark / marker grade
- Differential for favoured brand
- Differential for additives
- Differential for favoured location versus the LME approved delivery point
- Packaging differential
- Delivery differential to consumer works
- Timing differences
- Volume or other discounts / premiums etc

Plastics Trading Volumes (27 May – 9 September 2005)

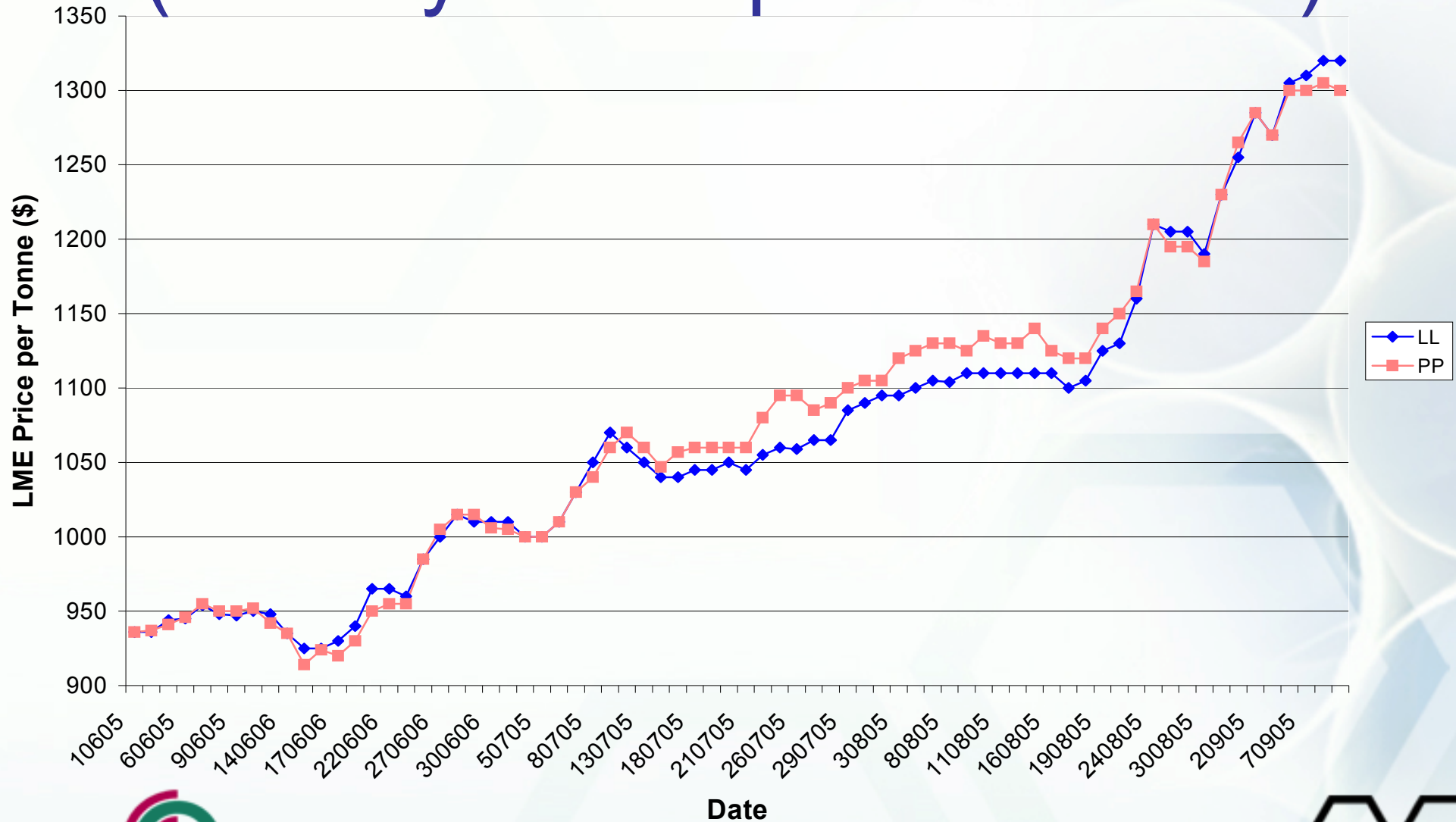


Market Open Interest - Plastics

(27 May – 9 September 2005)



LME Plastics Prices* (27 May – 9 September 2005)



*Seller's price for nearby month



Plastics Trading Update

In line with expectations:

- Light but steady trading (as of 15 September):
 - LL = 2013 lots = 49822 tonnes
 - PP = 2977 lots = 73681 tonnes
- ‘Linear’ price movements – in line with physical market
- Tight bid / offer spreads

It will take time for the industry to accept LME plastics pricing and use it for hedging and benchmark pricing for physical transactions

Summary

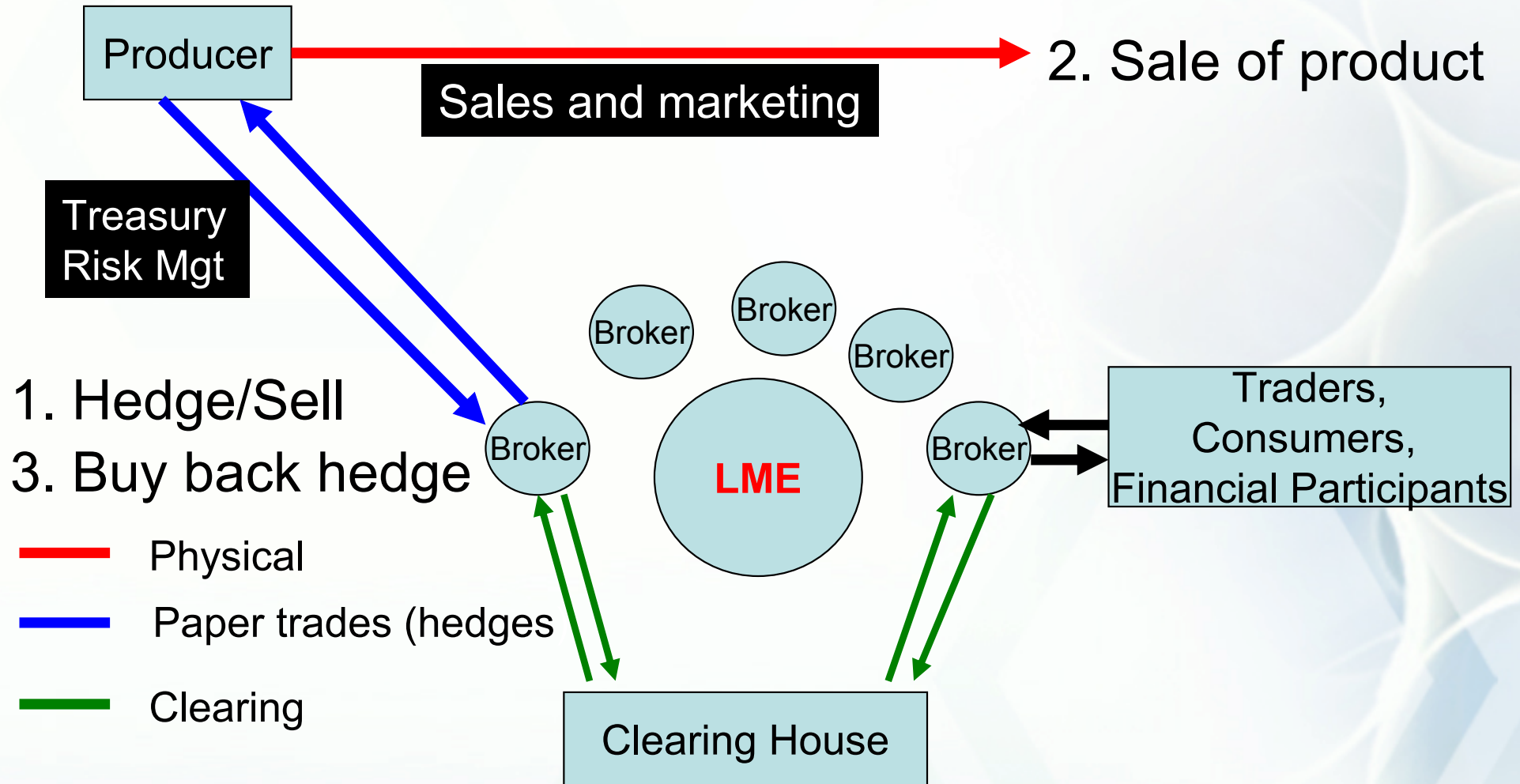
- Industry suffers from acute price volatility
- Real desire for effective risk management tools
- Entire supply chain can benefit from futures contracts
- Enables industry to focus on important issues of ongoing innovation and business development
- LME best placed to ensure contracts succeed

Basic Hedging Process

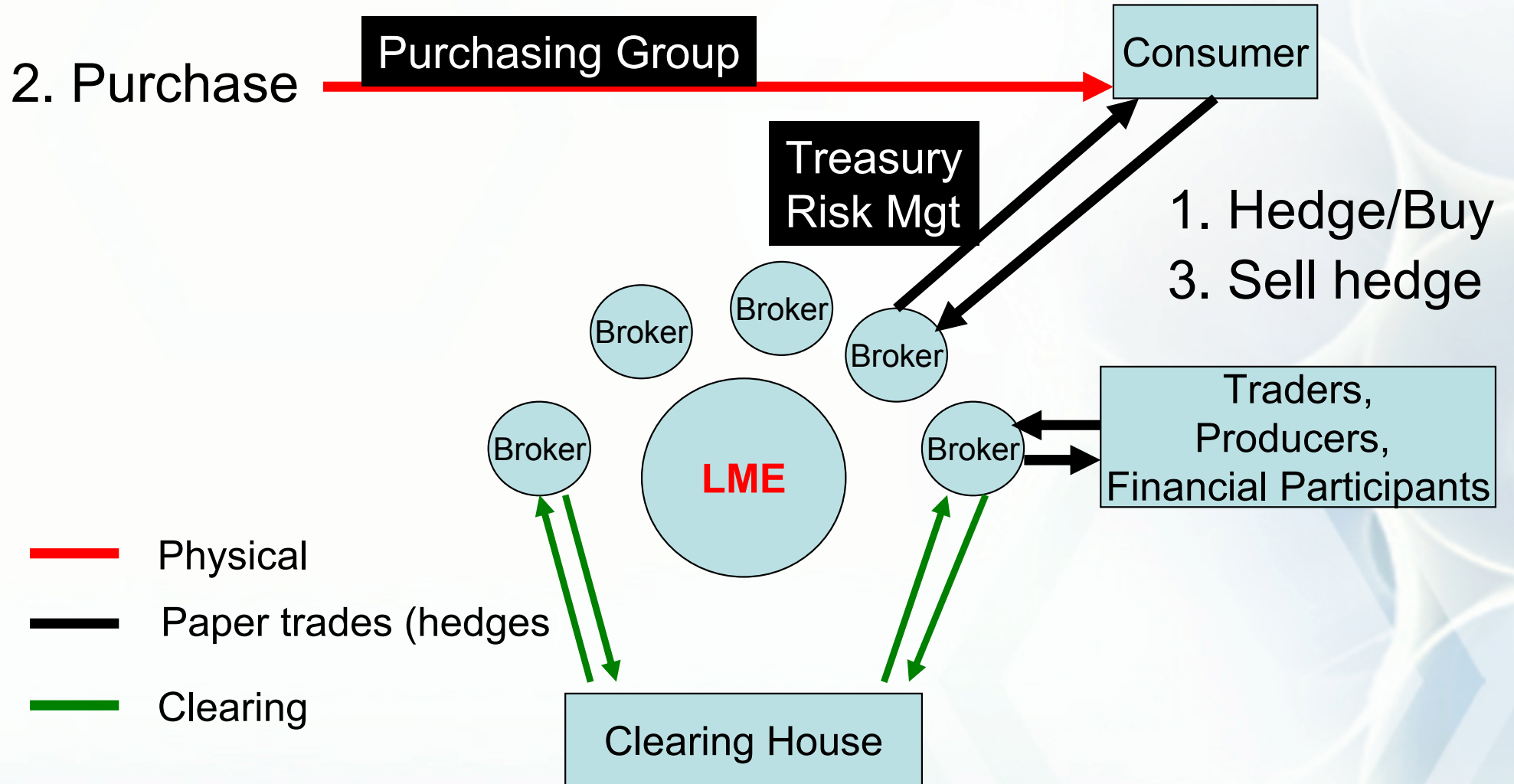


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LME Taking a position – Producer with unsold inventory



LME Taking a position – Consumer



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