

# Impact of Petroleum Pricing

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Raw Material Market Dynamics for Metal  
Coatings

# Petroleum & Natural Gas Markets Have Direct and Indirect Impact on RM Costs

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## ❖ Direct

- ❖ Raw Material Availability and Pricing

## ❖ Indirect

- ❖ Cost of Supplier Manufacturing Operations
- ❖ Transportation and Shipping Costs

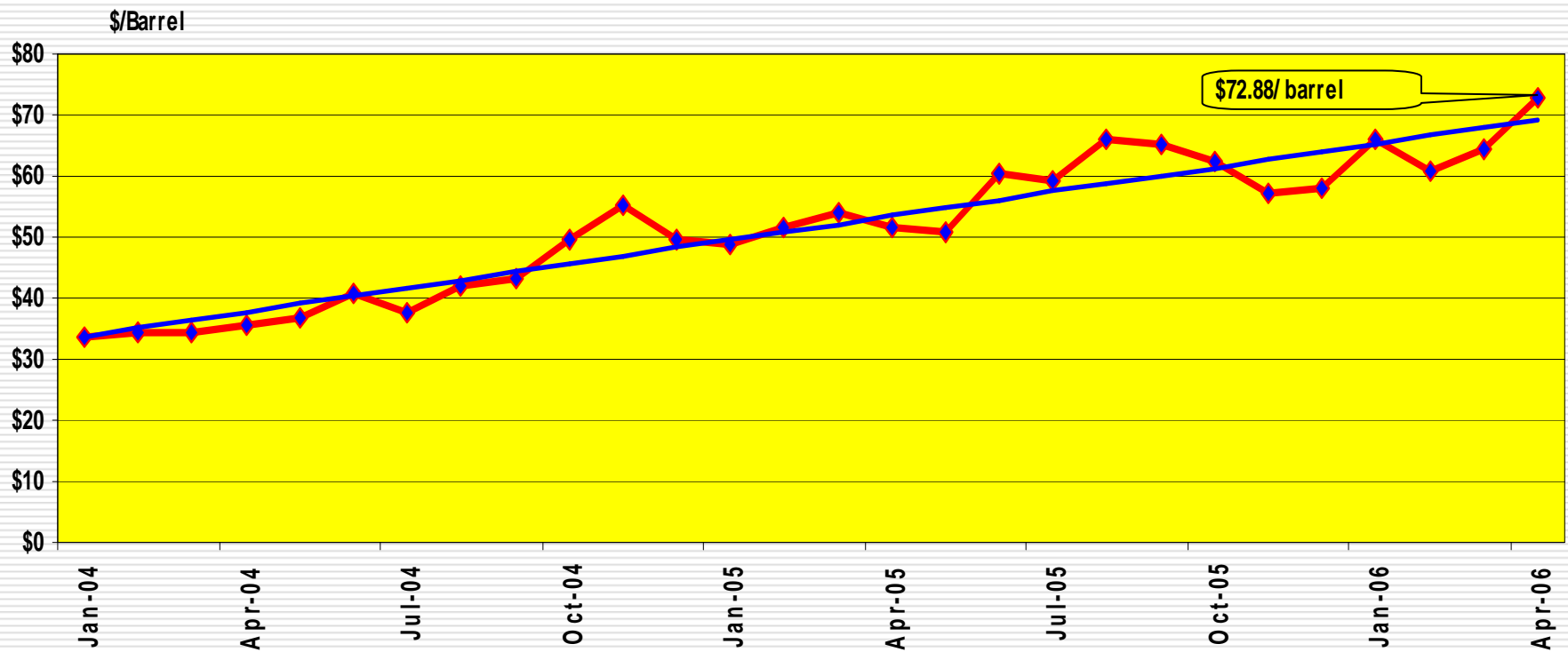
# Factors affecting Petroleum & Natural Gas Markets

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- ❖ World Demand
  - ❖ Geopolitical influence (e.g. Middle East)
  - ❖ Import vs Export, transportation
  
- ❖ US Market
  - ❖ Weather; Heating/Cooling, Tropical Storms
  - ❖ Speculation, Futures Trading
  - ❖ Government Regulation
  - ❖ Refinery Capacity and competition for feed stocks

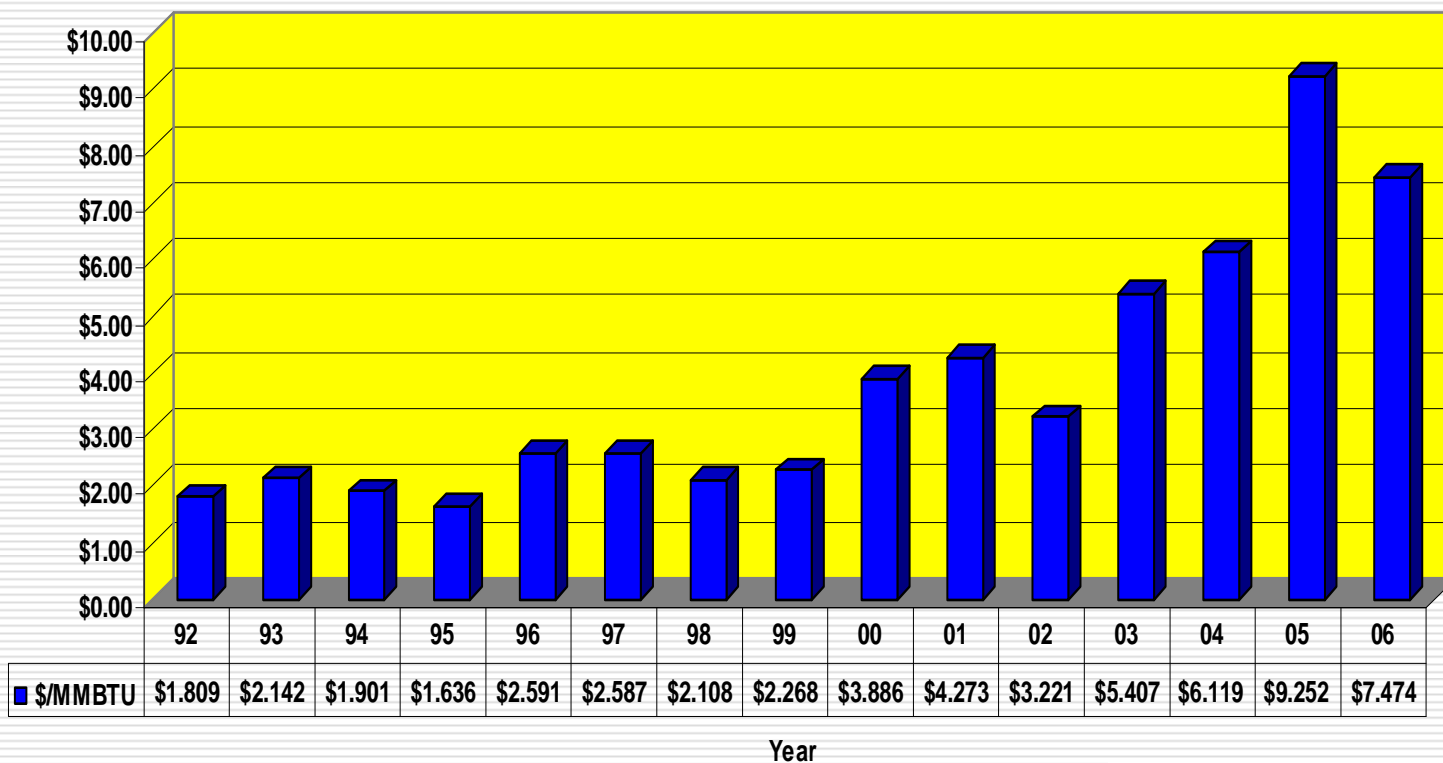
# Crude Oil Trends

CRUDE OIL (West Texas Intermediate)  
April 2006



# Natural Gas Trends

Average NYMEX Settlement Prices  
1992 - April 2006



# Crude Oil & Natural Gas are the Key Starting Materials for Solvents & Resins

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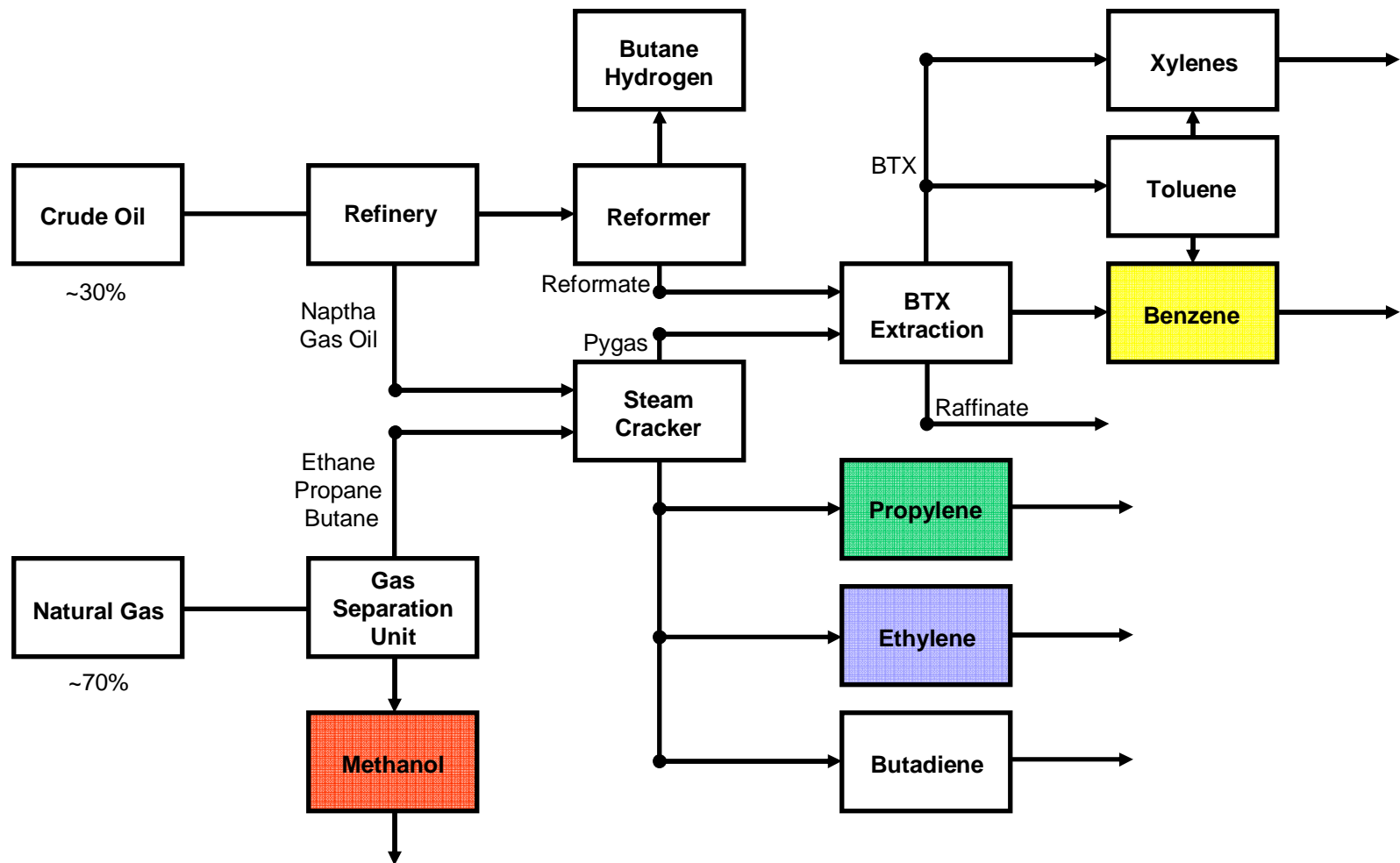
## ❖ Crude

- ❖ Used for Naptha production
- ❖ Naptha feeds gasoline & oil production
- ❖ Also used for Ethylene and Propylene

## ❖ Natural Gas

- ❖ Energy fuel for electricity and heating
- ❖ Also used for Methanol, carbon black
- ❖ Principle RM for Ethylene and Propylene

# Principle Petrochemical Feedstocks



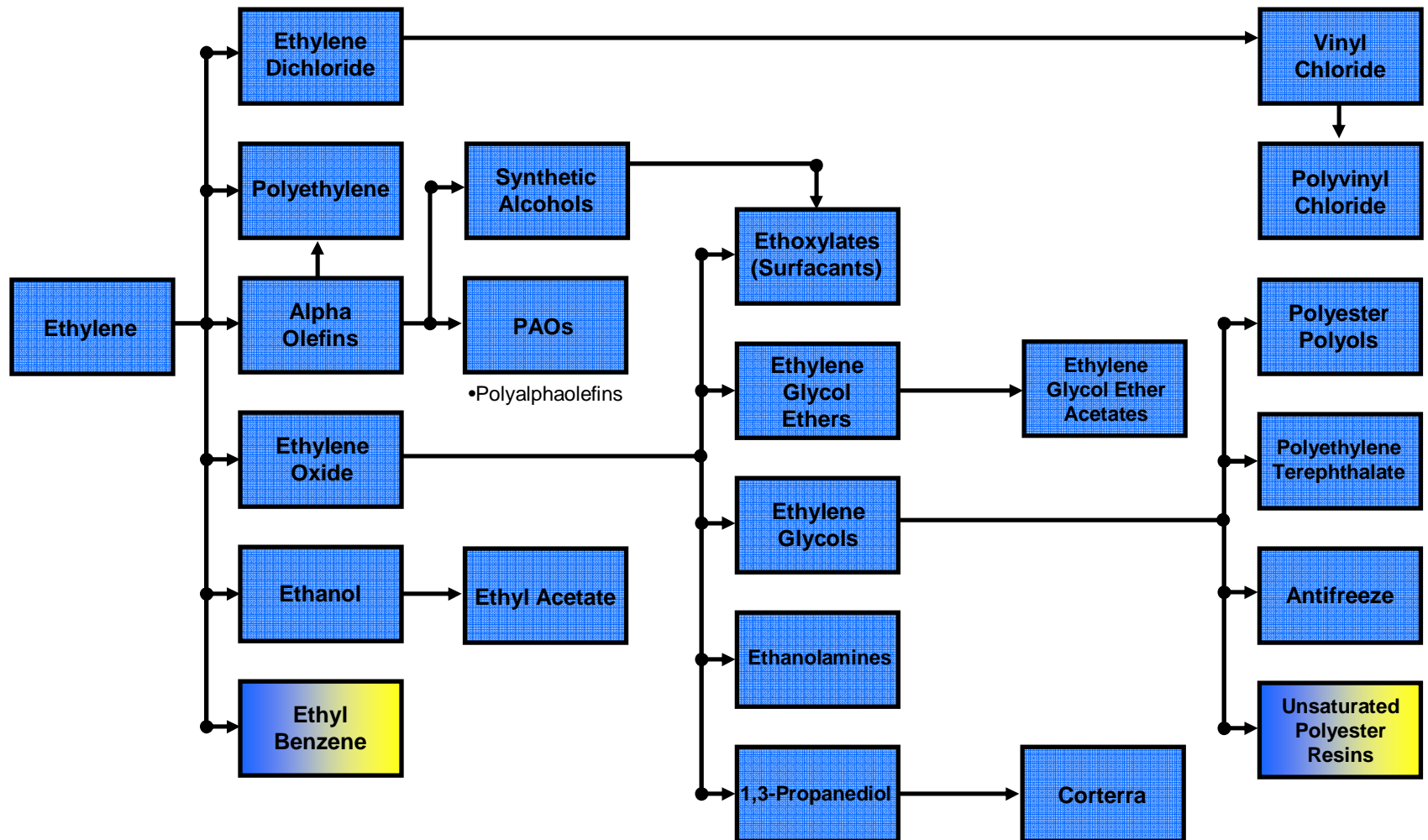
# Resins and Solvents for Coatings can come from 3 Major Feedstocks

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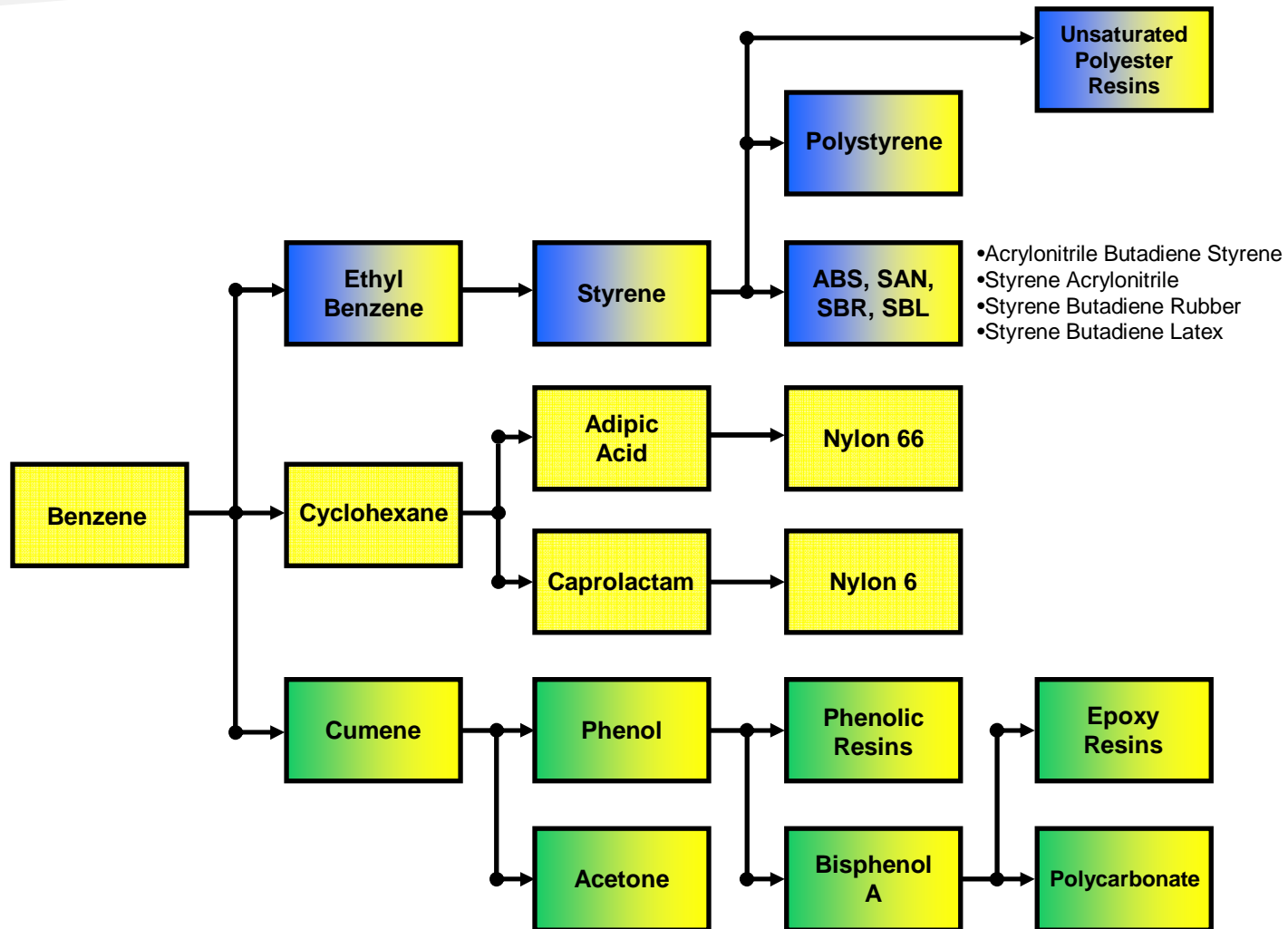
- ❖ Ethylene
- ❖ Benzene
- ❖ Propylene

*....Each Step in the Petrochemical production process creates competing products that drive supply and prices.*

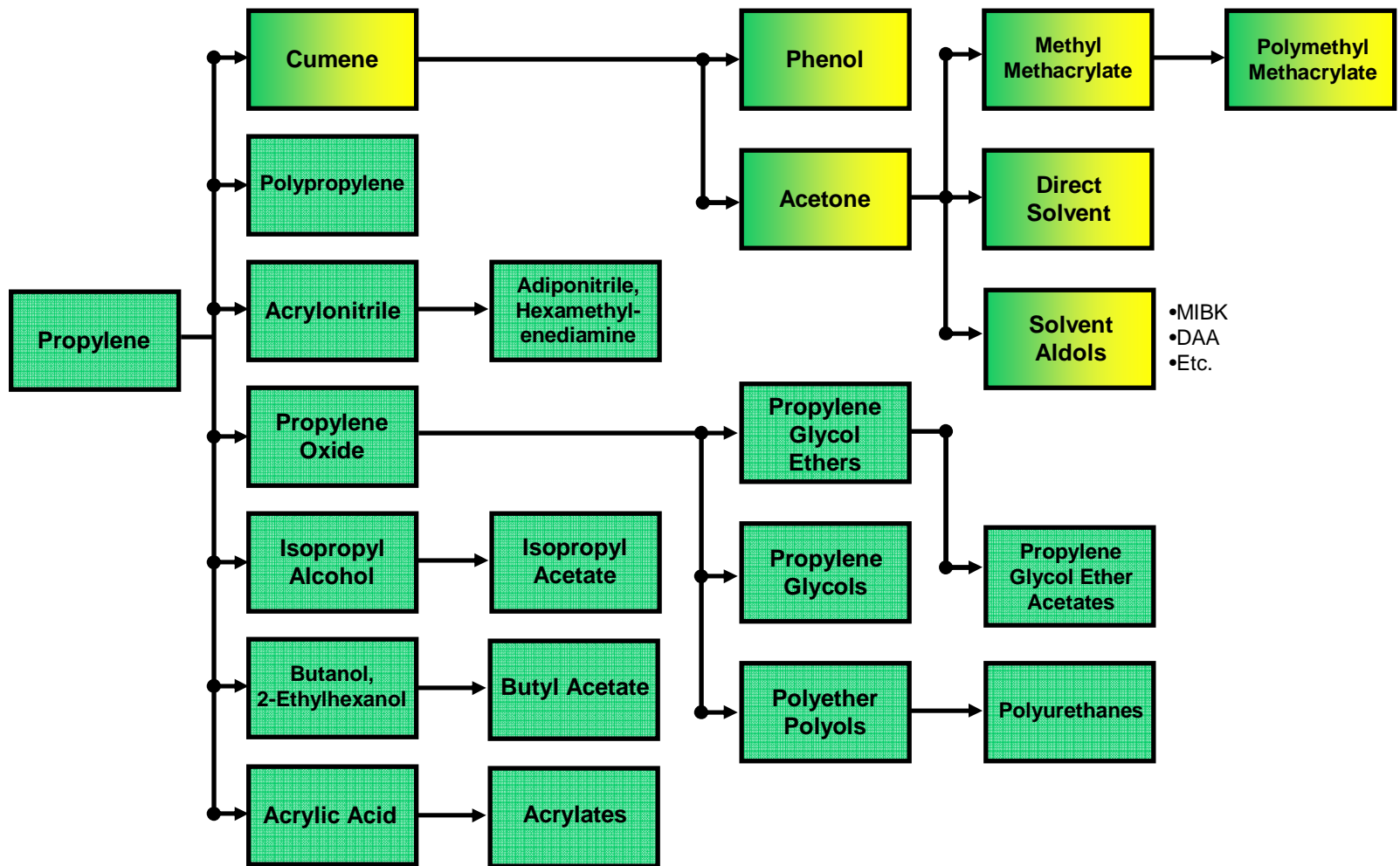
# Ethylene



# Benzene

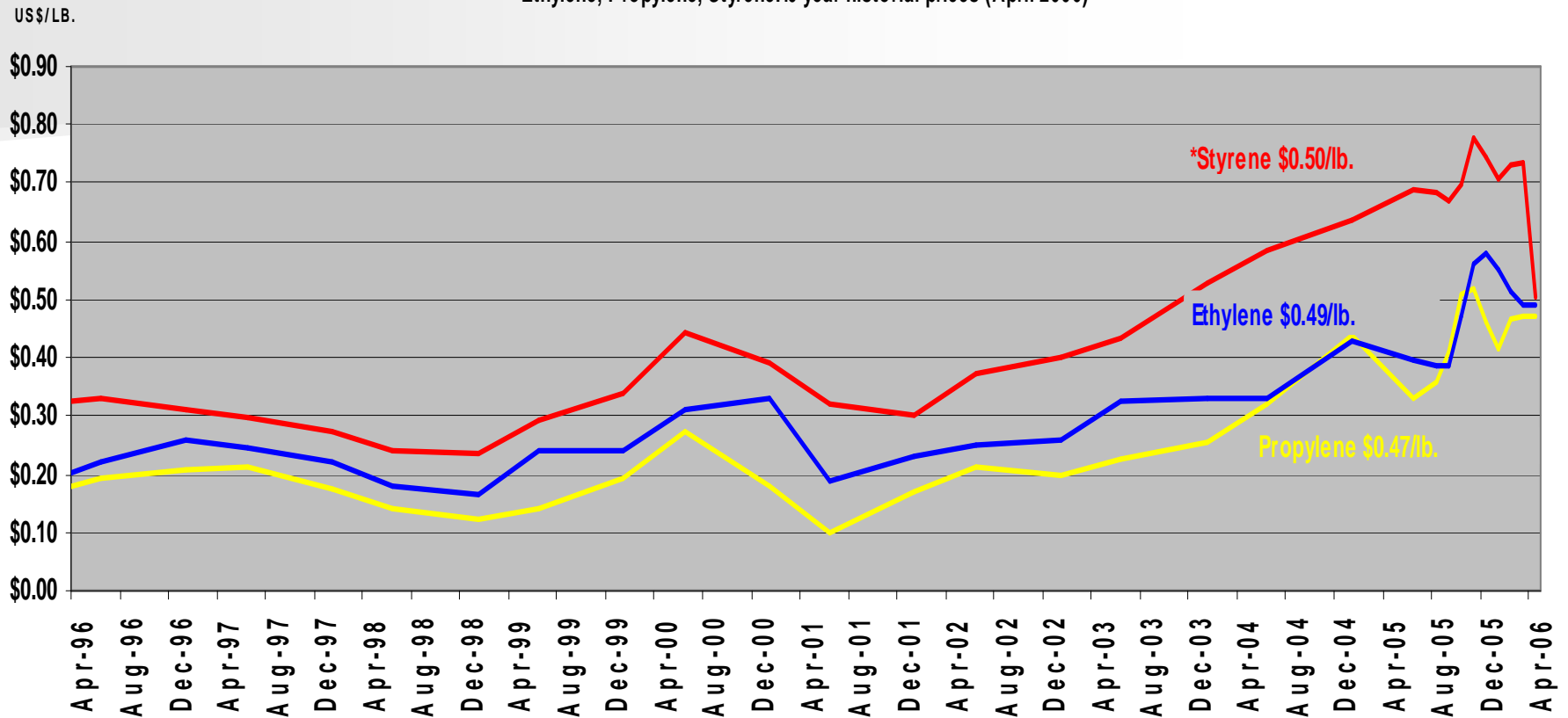


# Propylene

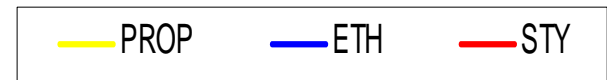


# Feedstock Price Trends

Ethylene, Propylene, Styrene: 10 year historical prices (April 2006)



\* STYRENE - This is a one-time adjustment made to more closely reflect price levels for large and medium volume transactions. THIS SHOULD NOT BE INTERPRETED AS A MARKET PRICE CHANGE.



## Pricing pressure is similar for other Key Components used in the paint & coating industry

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### ❖ Pigments

- ❖ Organic and Titanium Dioxide

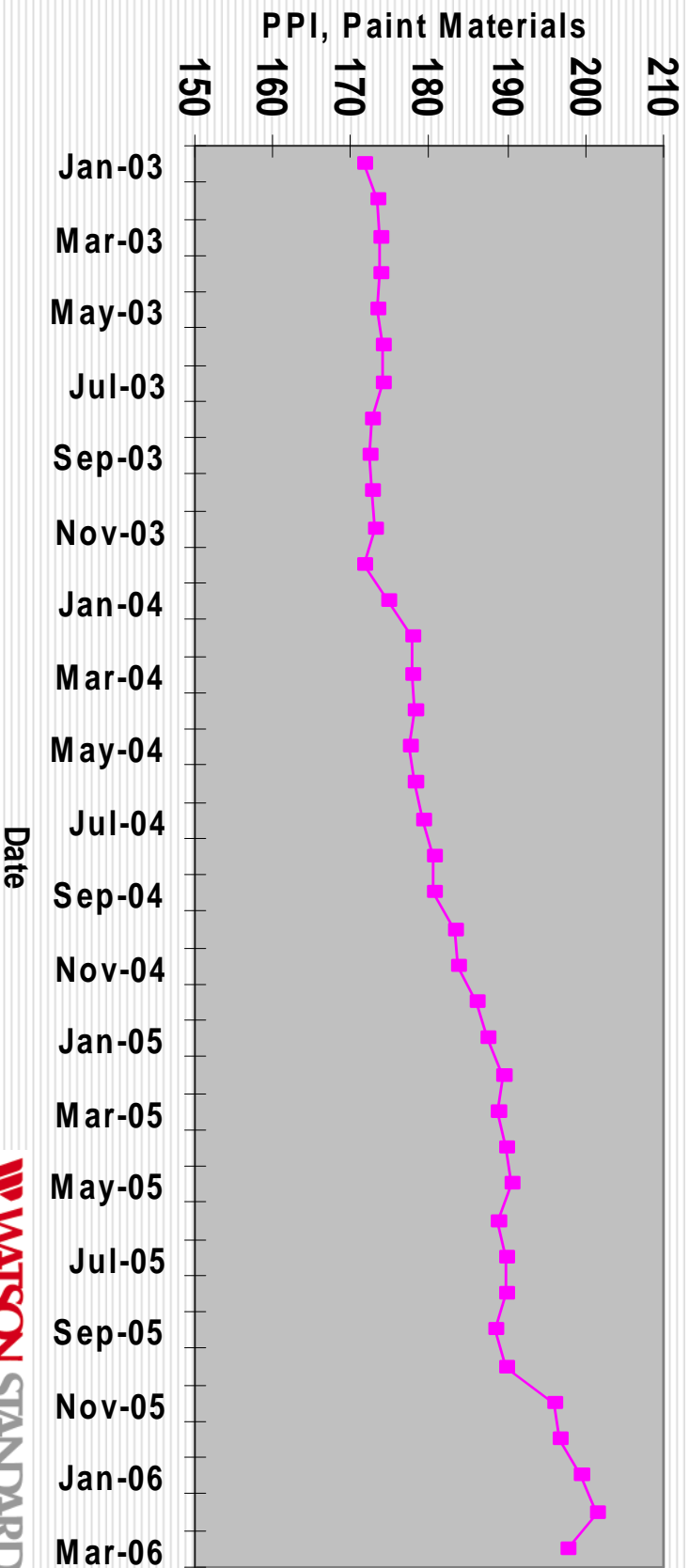
### ❖ Additives

- ❖ Waxes, Enhancers, Fillers

*The ability to mitigate costs, and reject downstream price increases weakened during 2003 as producers tightened supply and long term contracts expired.*

# 2003...When the Dam Broke!

**DOL Producer Price Index, Paint Materials**  
*(last 4 points are preliminary)*



# Key Points to Remember

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- ❖ **The Petroleum Market is Complex & Dynamic**
  - ❖ Global/Regional Economies and Politics
  - ❖ Impacted by Capacity, Weather, Speculators
  - ❖ Each Petro-product has its own demand dynamic
  
- ❖ **Supply & Demand has shifted to a Seller's Market**
  - ❖ Price increases are successful due to a captive market and limited supply
  - ❖ Price increase for feedstock=increase for resins, etc.
  - ❖ Price will change when dynamics change

# What can be done do to minimize cost escalation?

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## ❖ **Develop Good Supplier Relationships**

- ❖ Based on Reliability & Best Value vs Competitive
- ❖ Stabilize supply during shortages, natural disasters
- ❖ Enables good due diligence when prices increase

## ❖ **Establish Effective Supply Continuity Plans**

- ❖ Enables competitive pricing for commodities
- ❖ Protects RM supply during price sensitive events
- ❖ Protects customers from stock out risks
- ❖ Helps Primary and Secondary Suppliers plan their business