

# MARKET POWER, REGULATION AND SPECULATION: DO WE HAVE ANY COMPETITIVE ENERGY MARKETS?

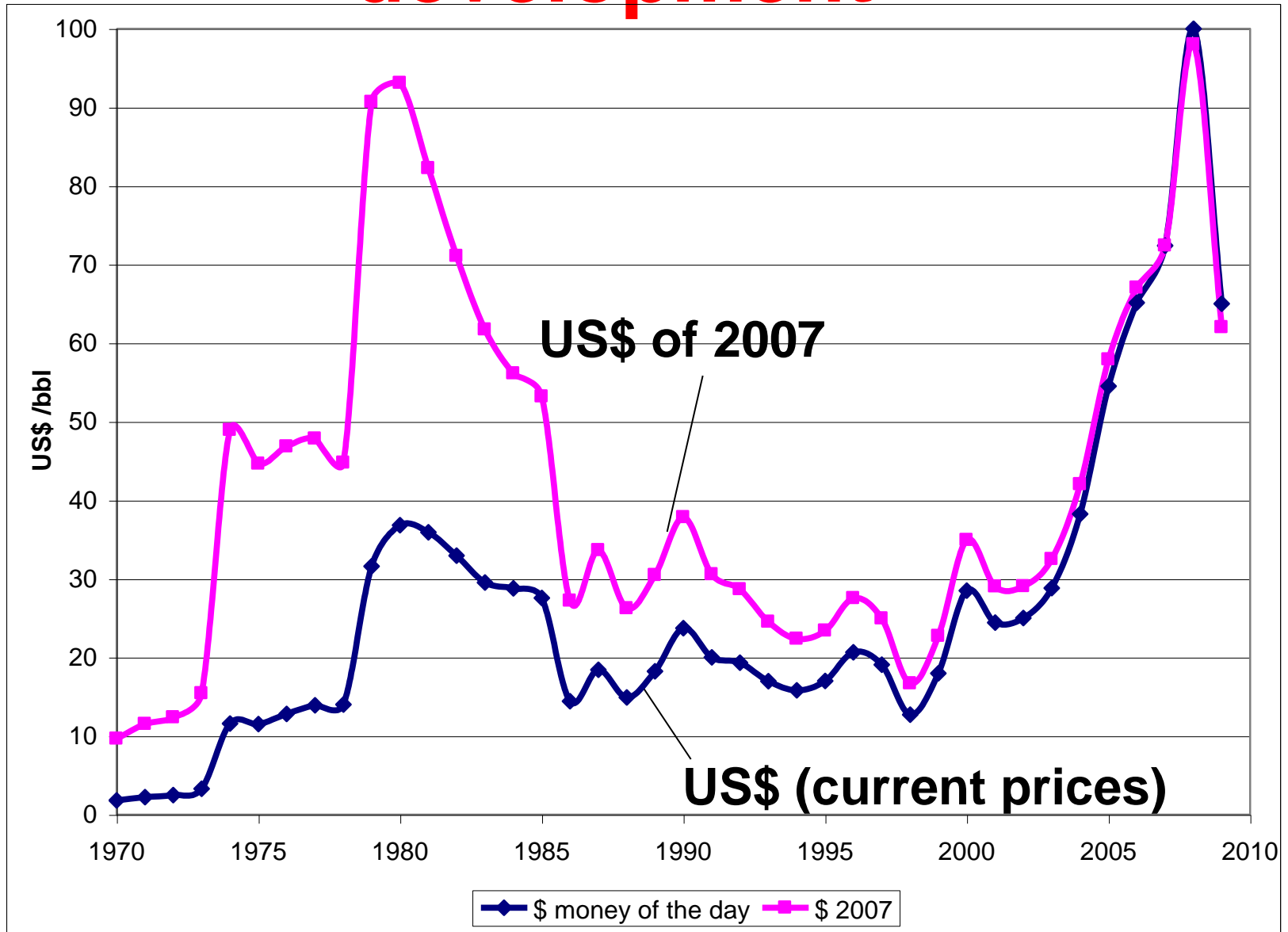
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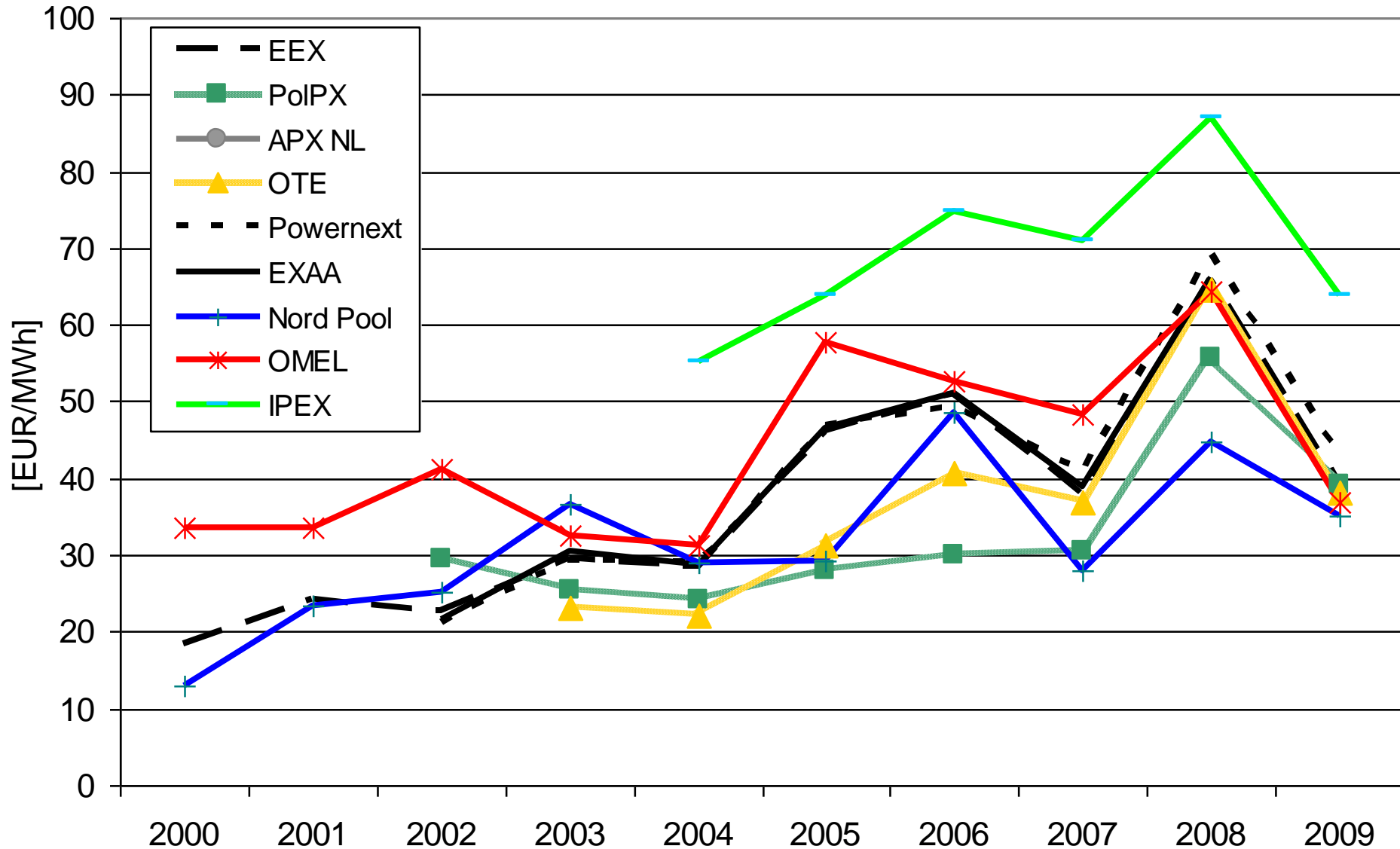
**GRAZ, 11th February 2010**

- 1. Introduction**
- 2. Method of approach**
- 3. The world oil market**
- 4. Major results**
- 5. Conclusions**

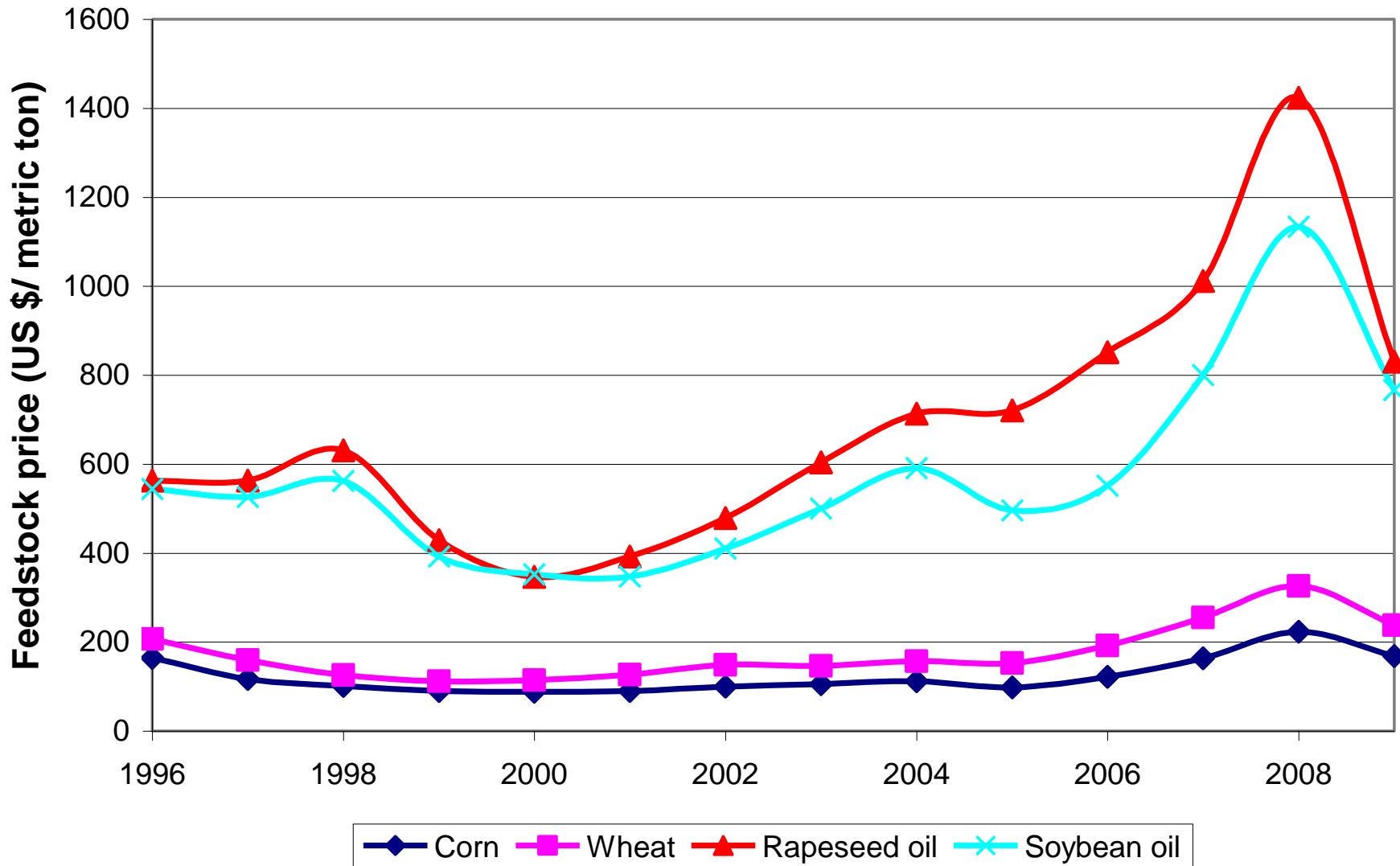
# Historical oil price development



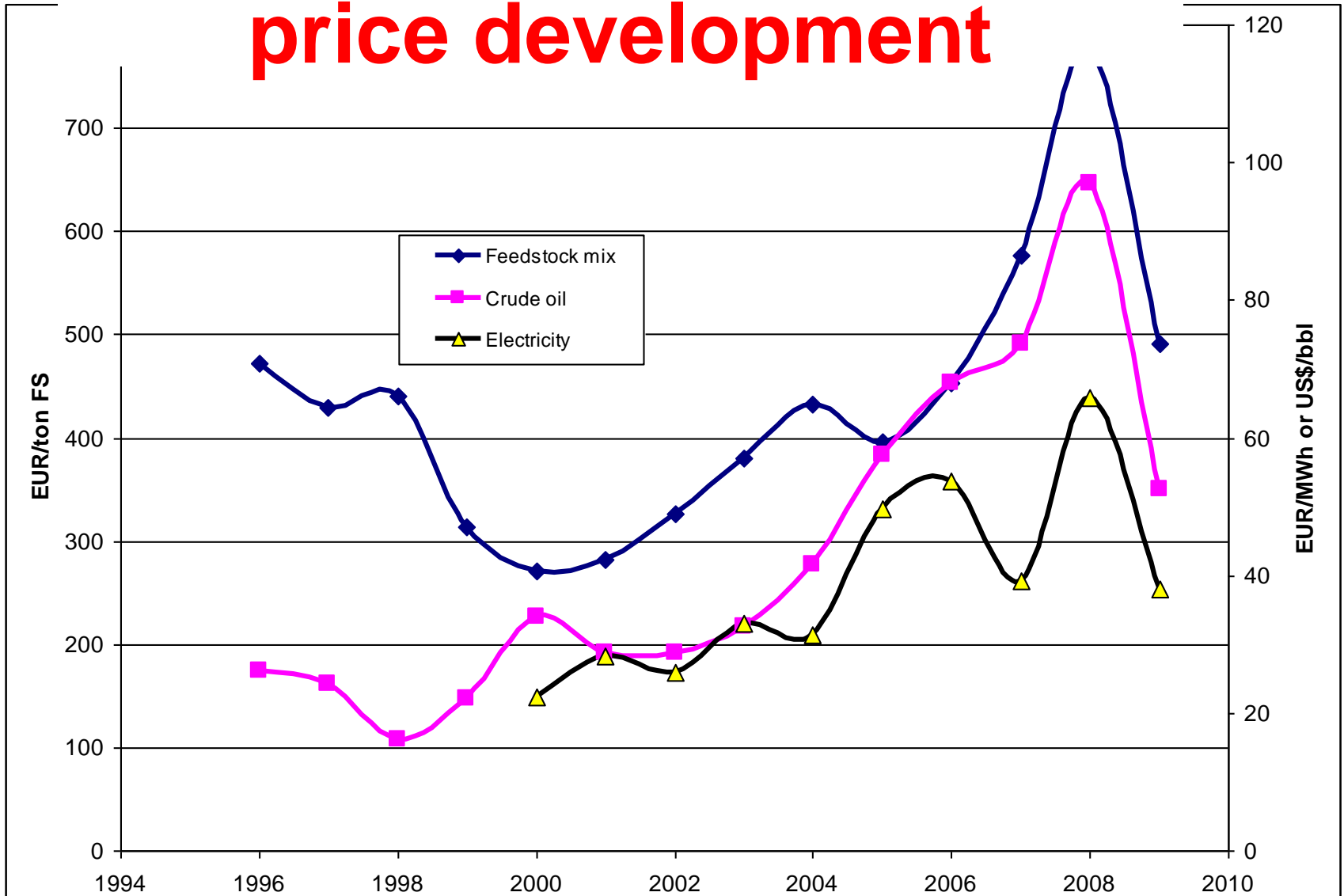
# Historical electricity price development



# Historical feedstock price development



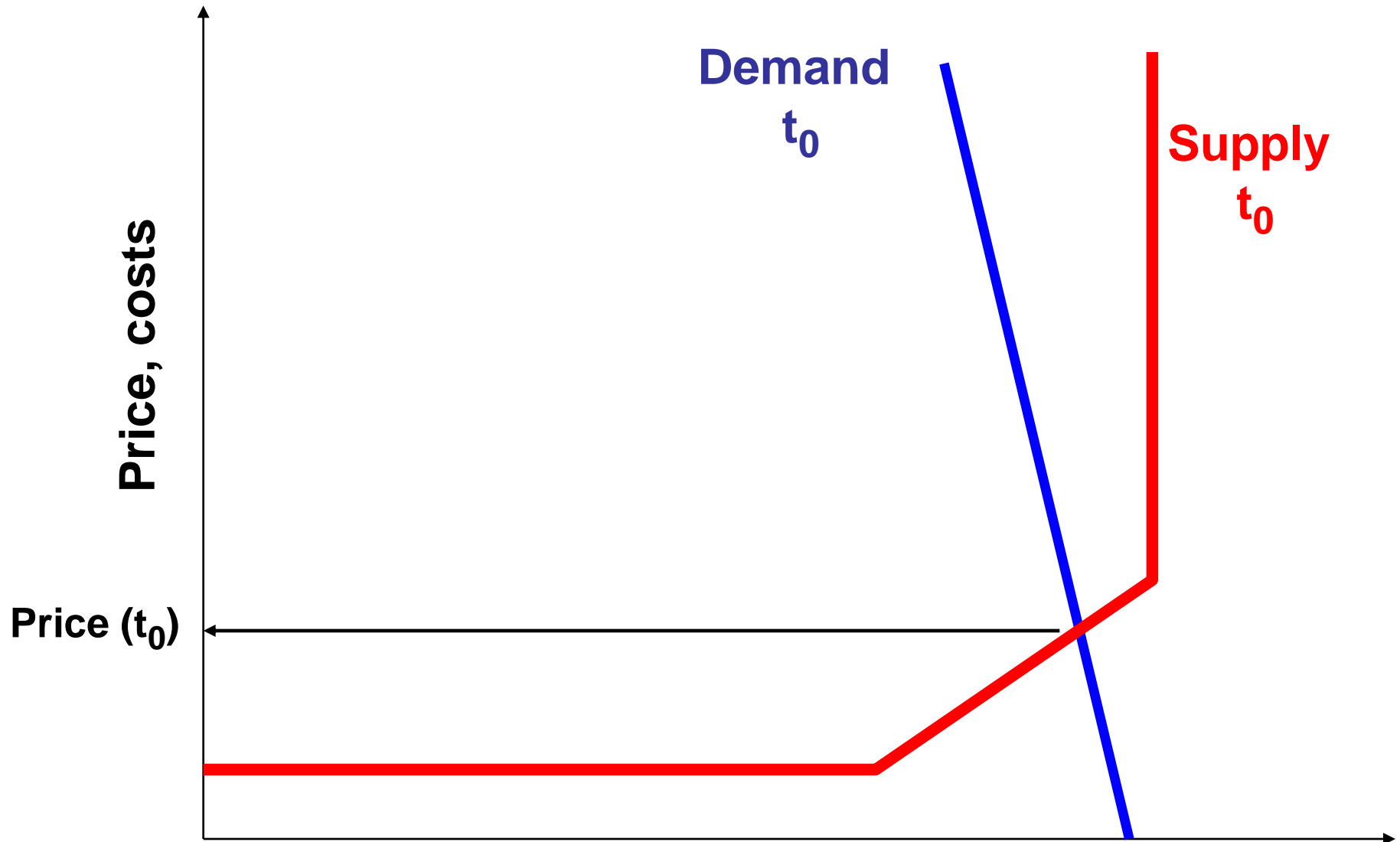
# Comparison: historical oil, feedstock, and electricity price development



## 2. METHOD OF APPROACH

- Describing the fundamentals of supply & demand in energy markets;
- Supply: Discussion of the role of OPEC in the world oil market;
- The issue of physical short-term and speculative long-term demand;

# ENERGY SUPPLY & DEMAND

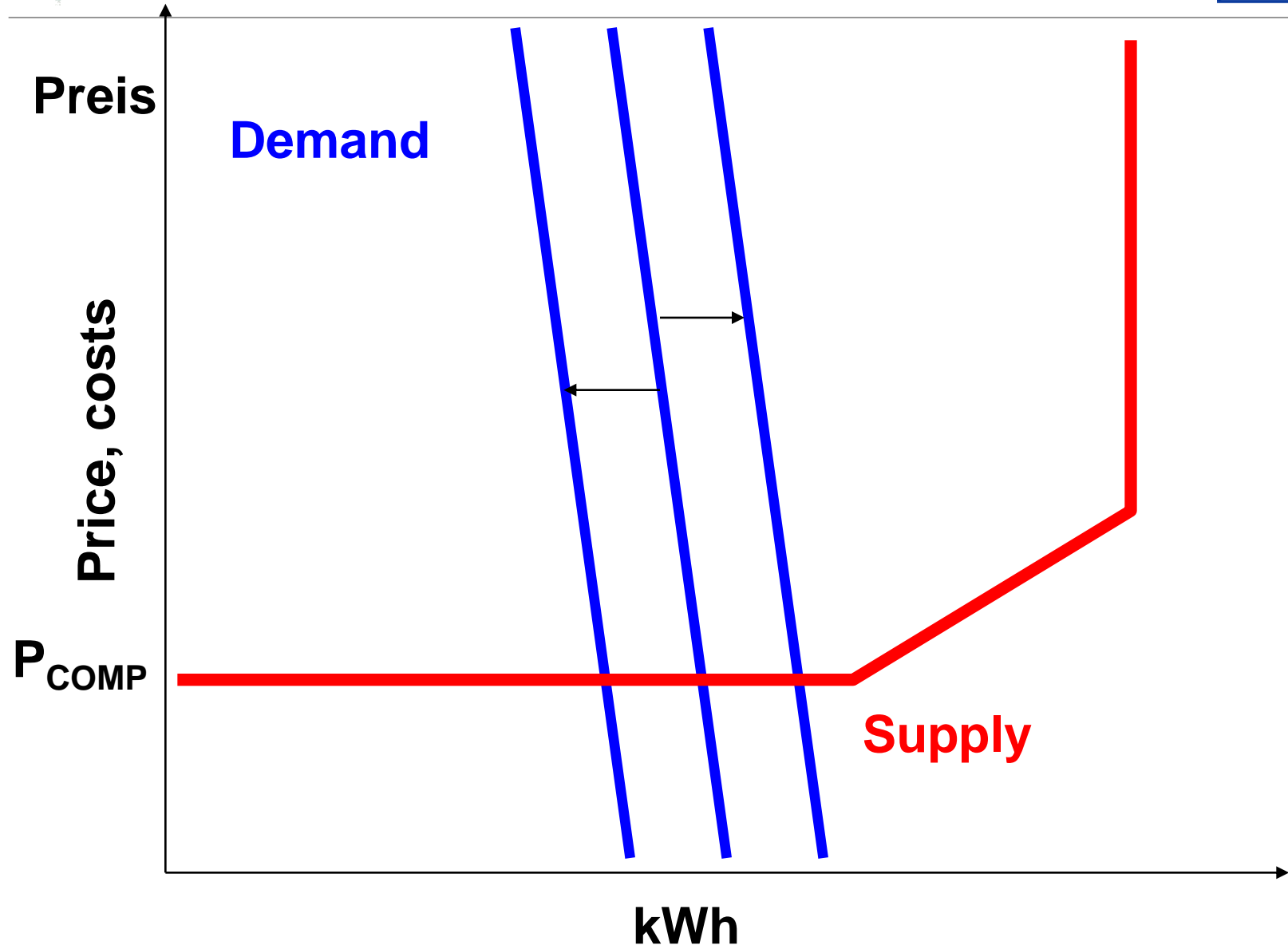




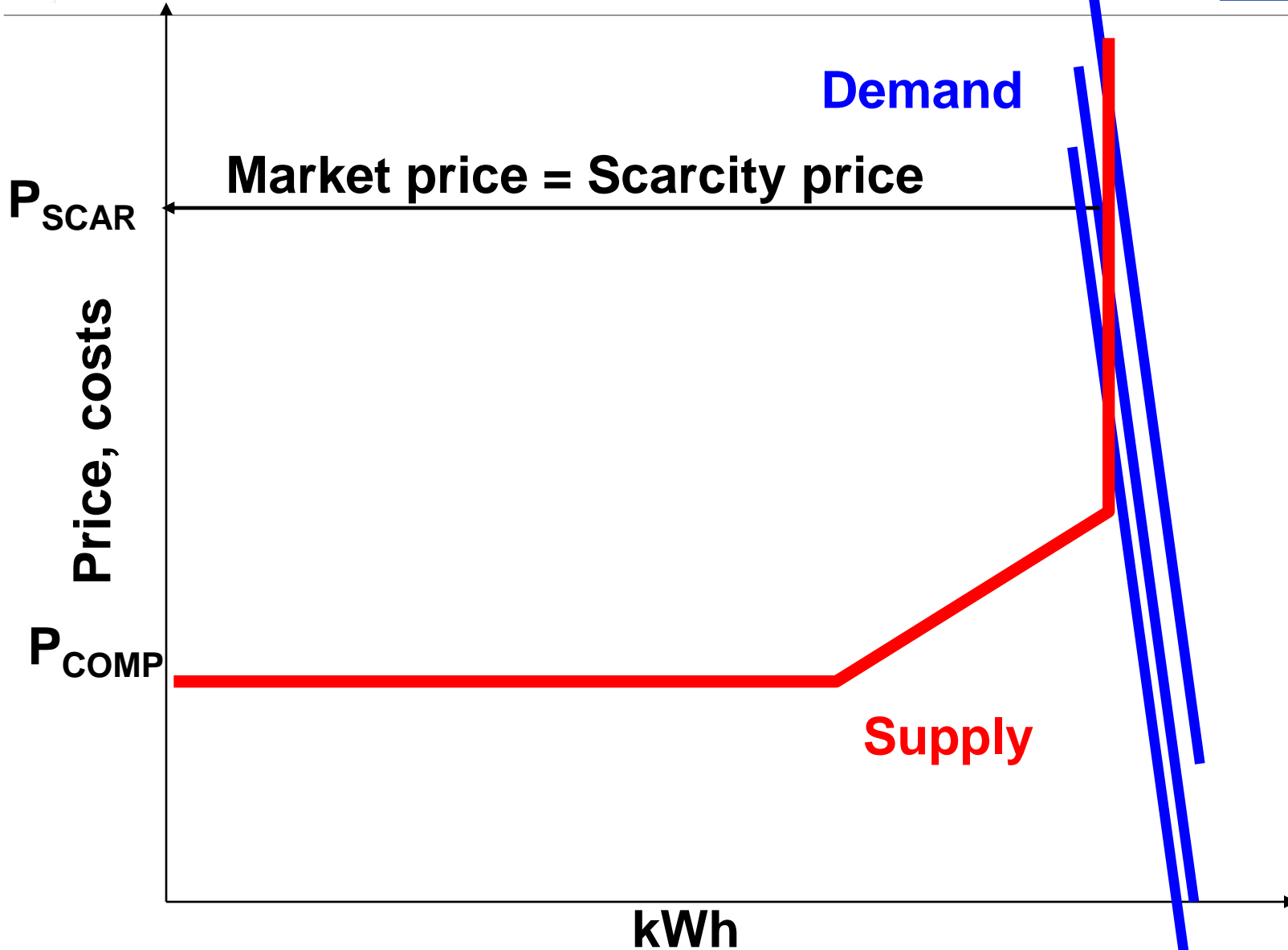
# There are at least the following basic explanations for the development of energy prices:

- general physical fundamentals of demand & supply (short-term and long-term) incl. peak-oil, grid-bottlenecks, power plant shortages
- strategic behaviour of suppliers (oligopoly game)
- fiscal (e.g. currency) developments and strategic/speculation from the demand-side

# BUYERS MARKET



# SELLERS MARKET



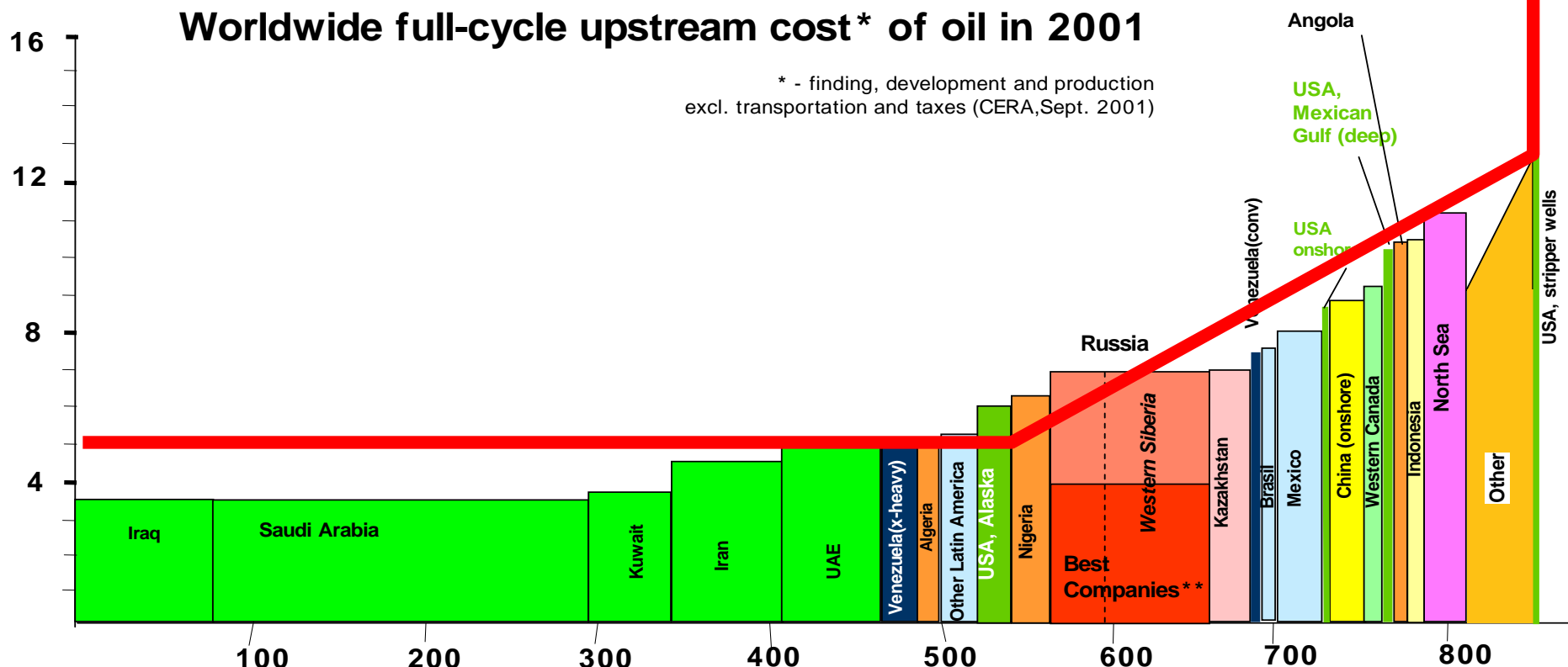
# 3. WORLD OIL MARKET

## FUNDAMENTAL MODEL BASED ON SUPPLY-SIDE COST CURVE

\$/bbl

Worldwide full-cycle upstream cost\* of oil in 2001

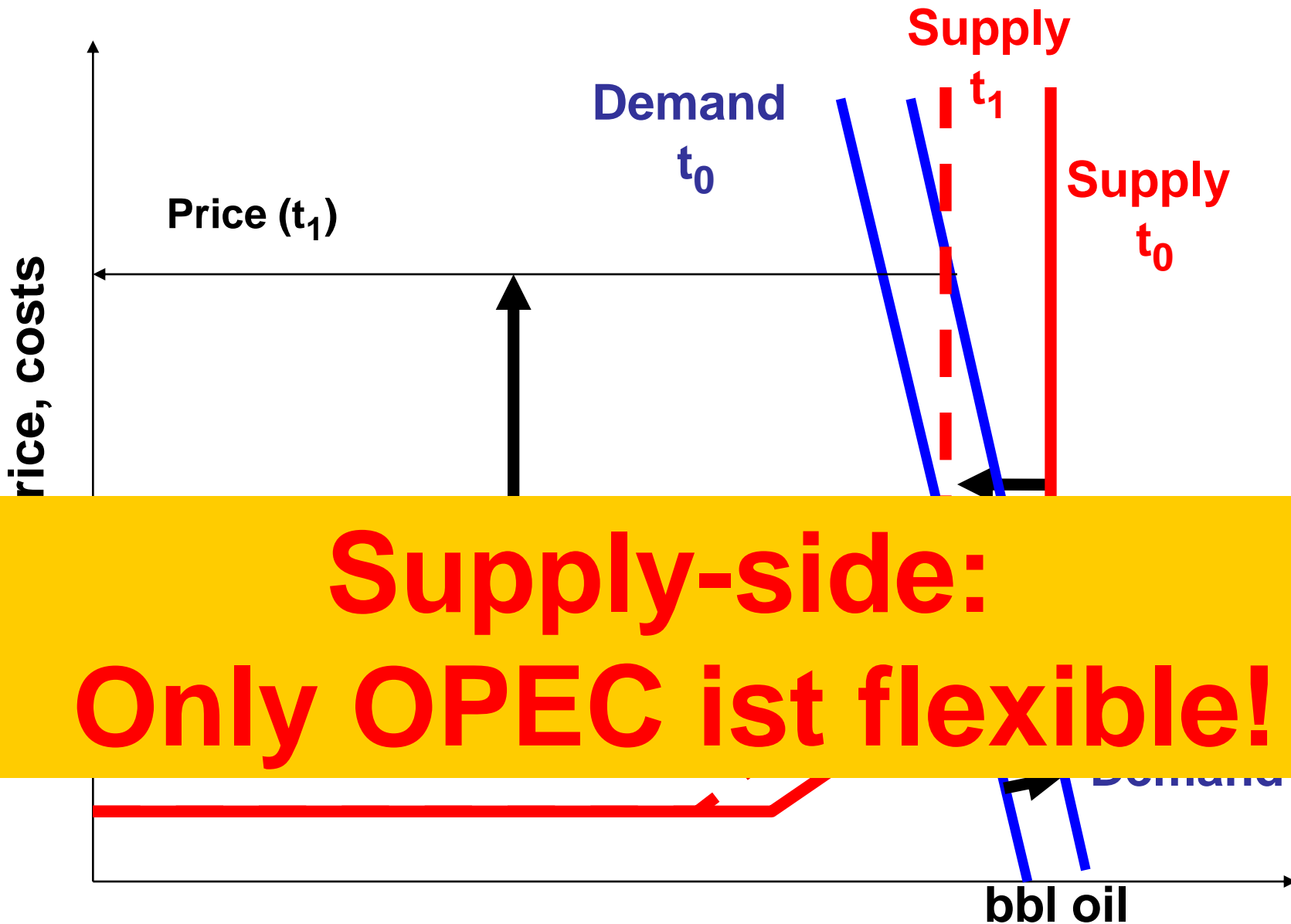
\* - finding, development and production  
excl. transportation and taxes (CERA, Sept. 2001)

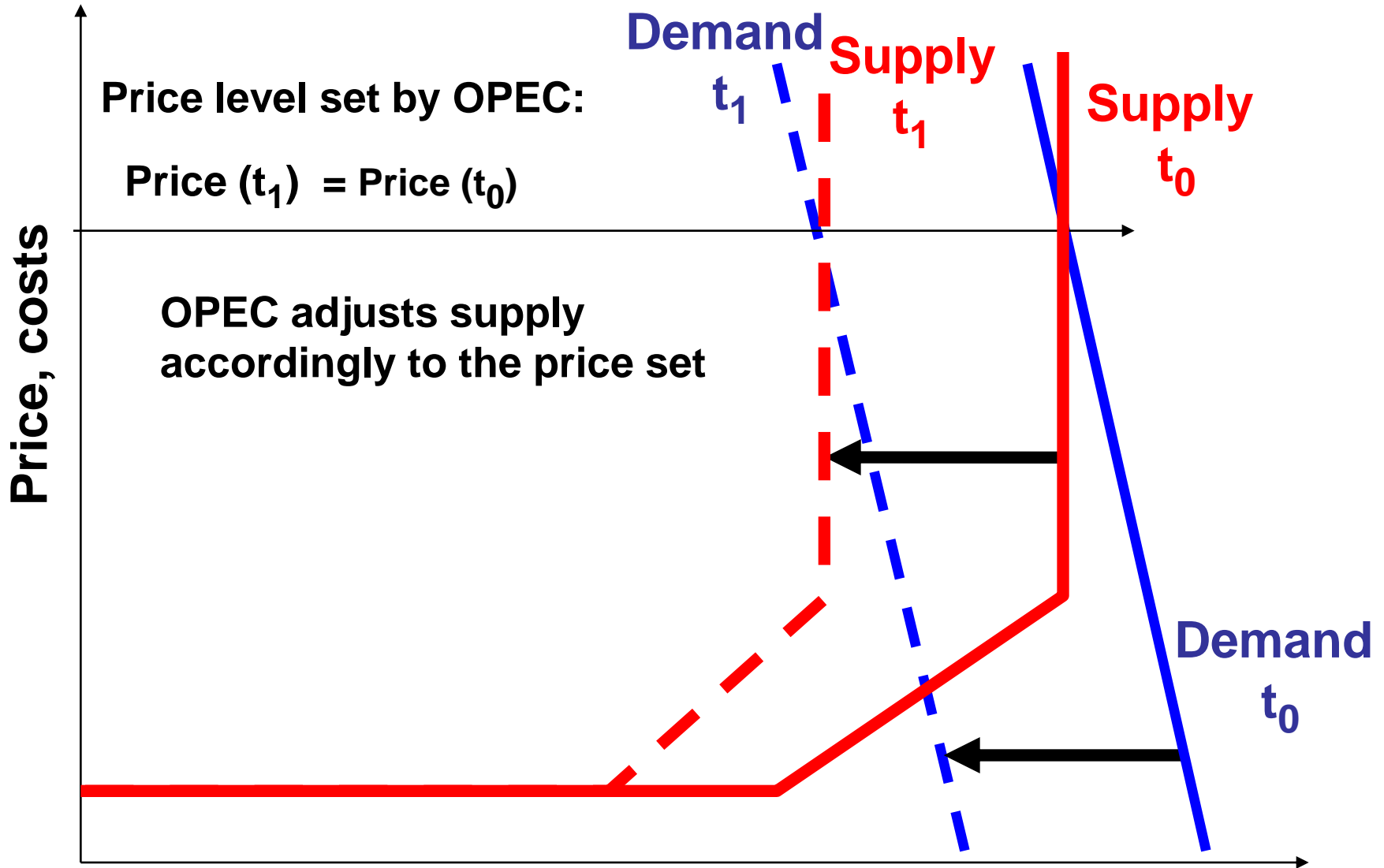


\*\* - 2001 finding, development and production cost -3.7 \$/bbl,

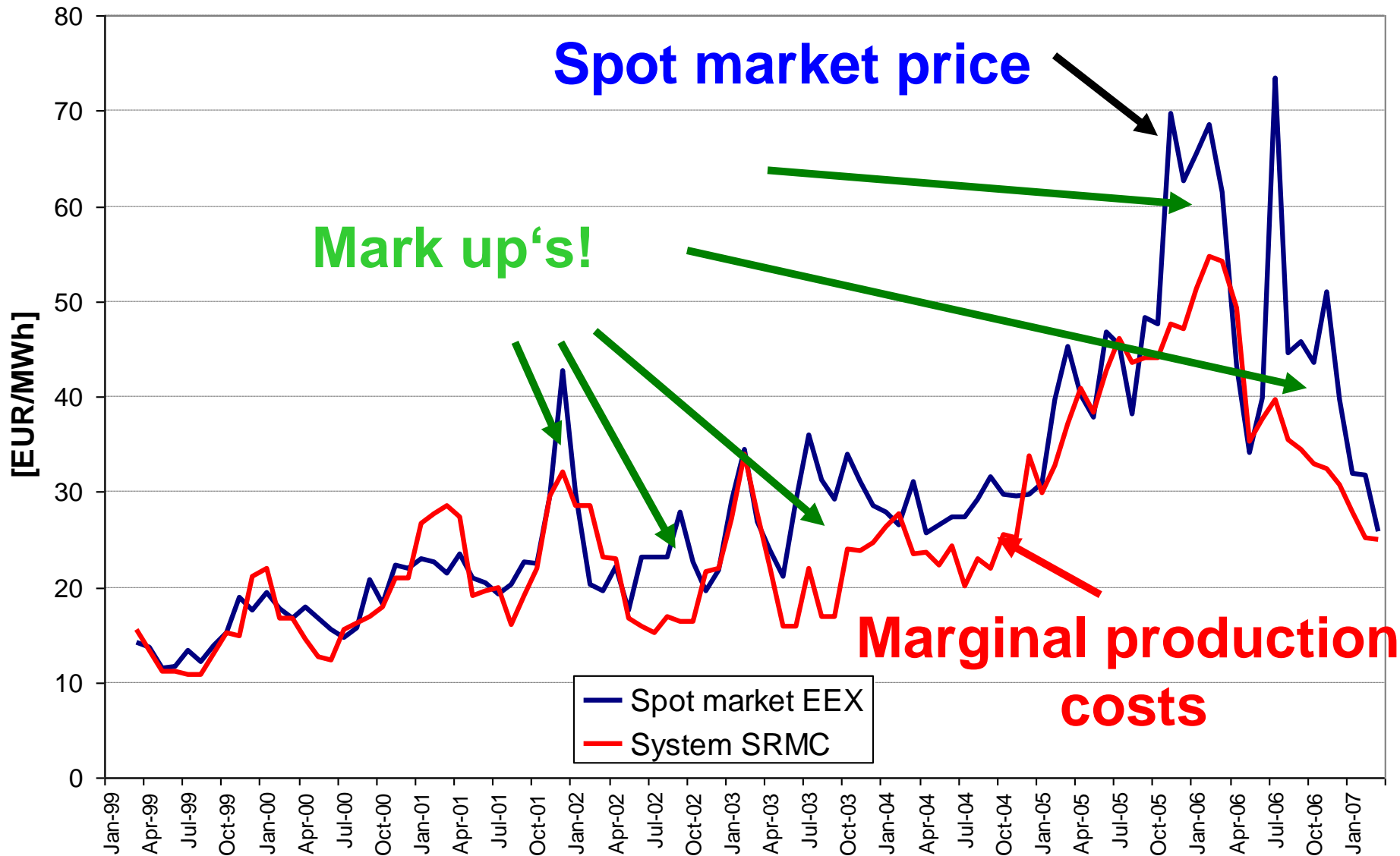
Reserves,  
bln.bbl

# 4. MAJOR RESULTS





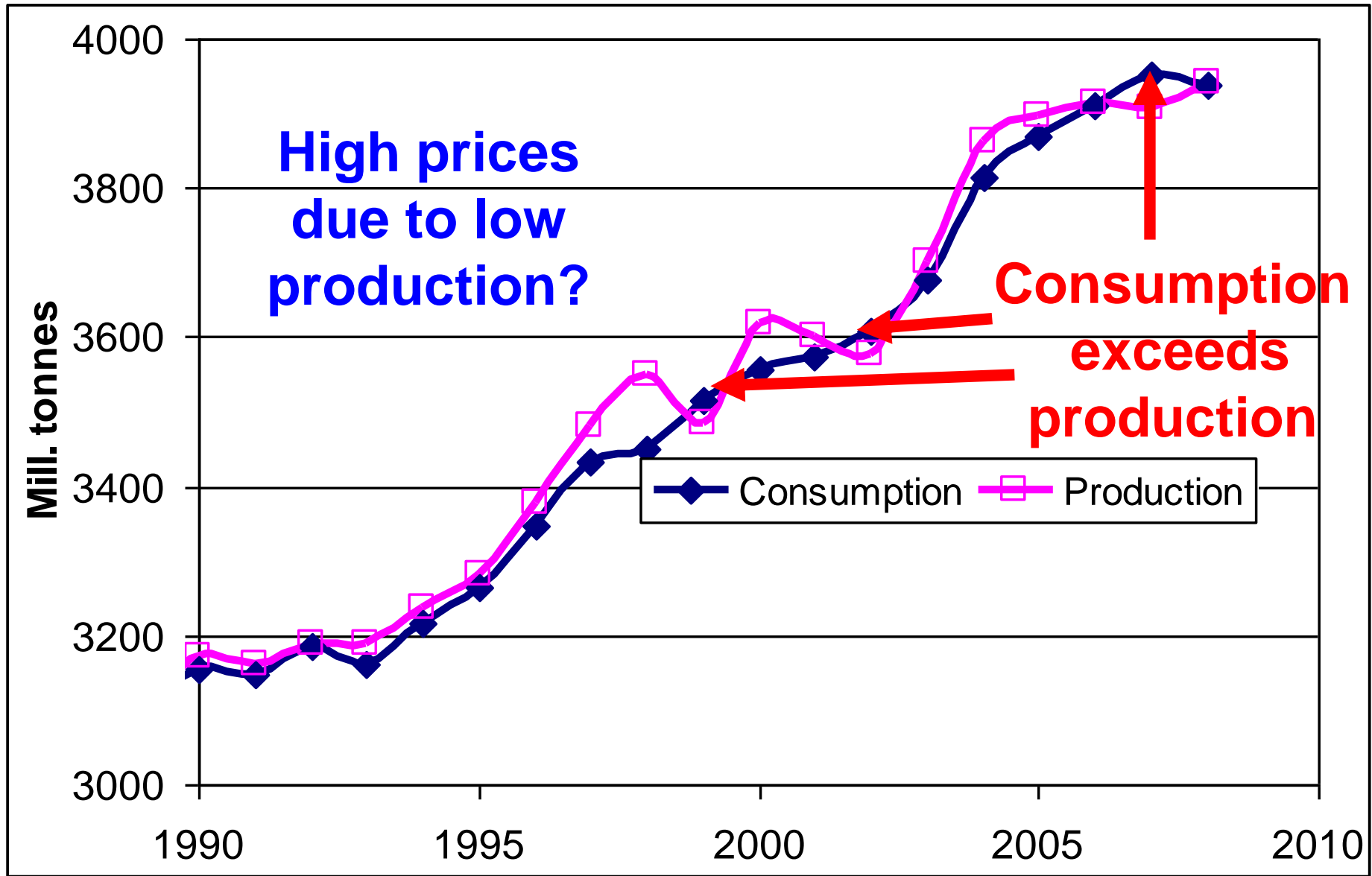
# ELECTRICITY MARKET IN CENTRAL EUROPE



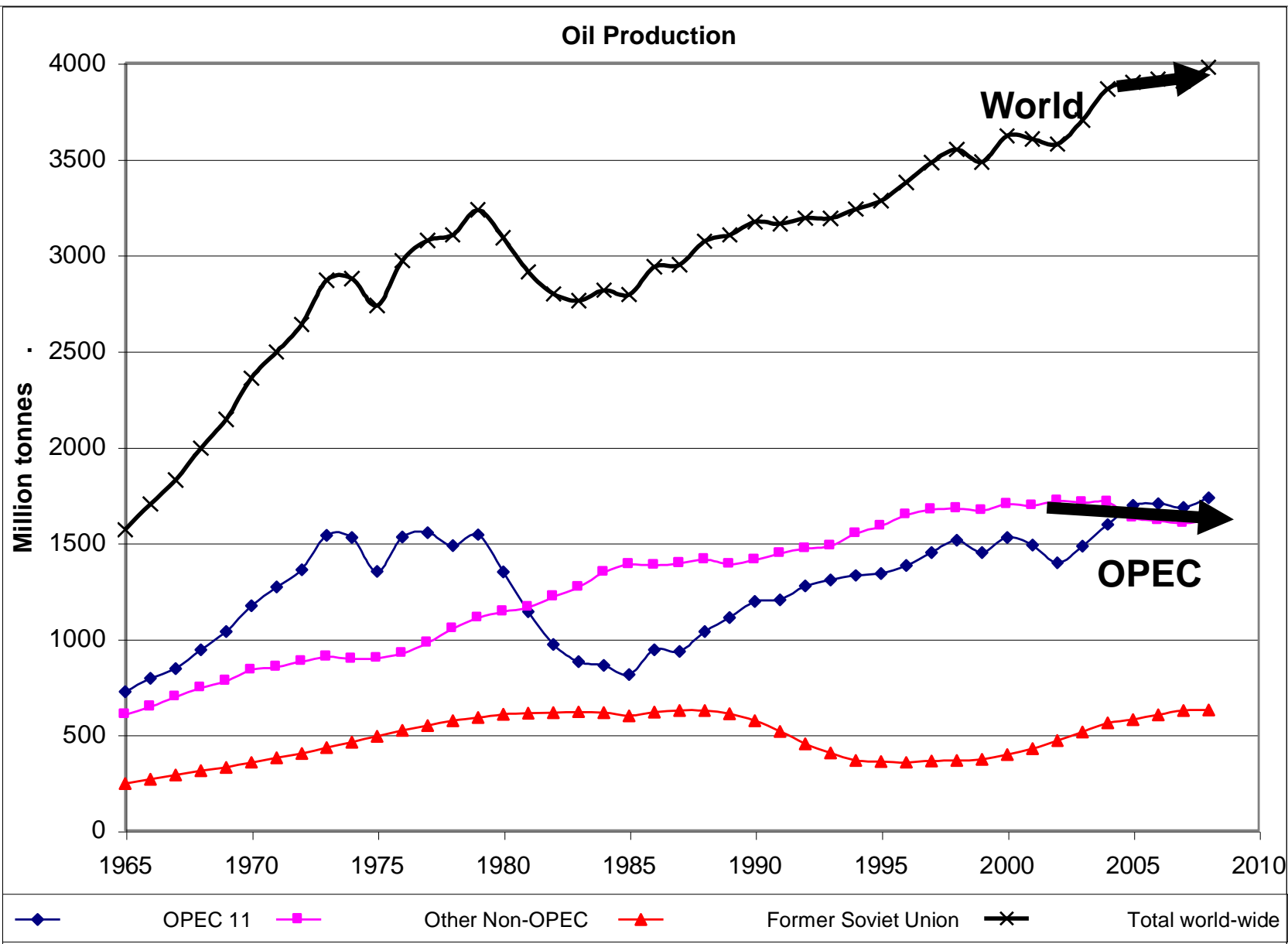


# **CAN WE EXPLAIN RECENT DEVELOPMENTS IN WORLD OIL (OR FEEDSTOCK/BIOFUELS) MARKETS WITH SUPPLY-SIDE IMPACTS?**

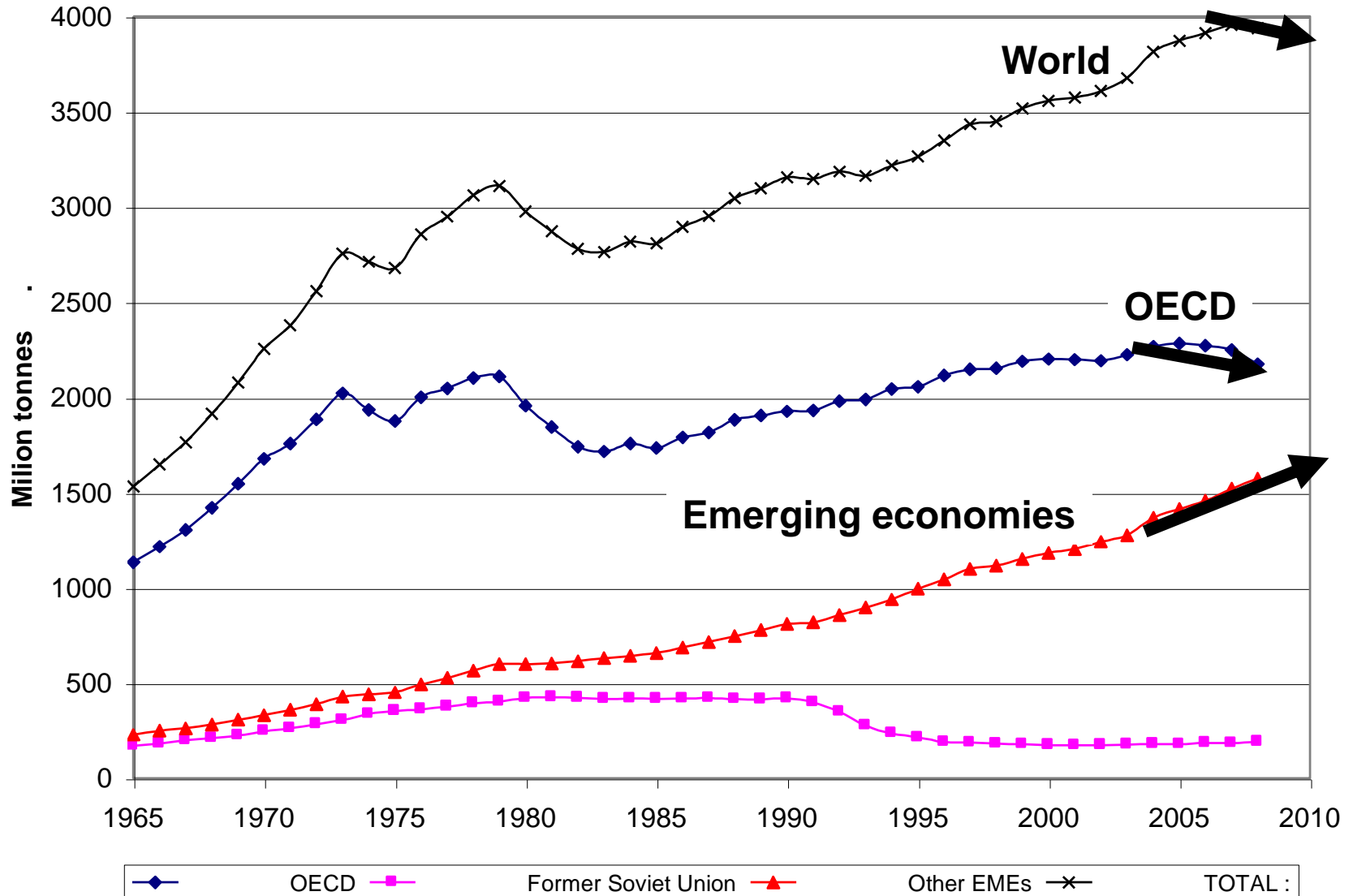
# Oil production vs consumption world-wide



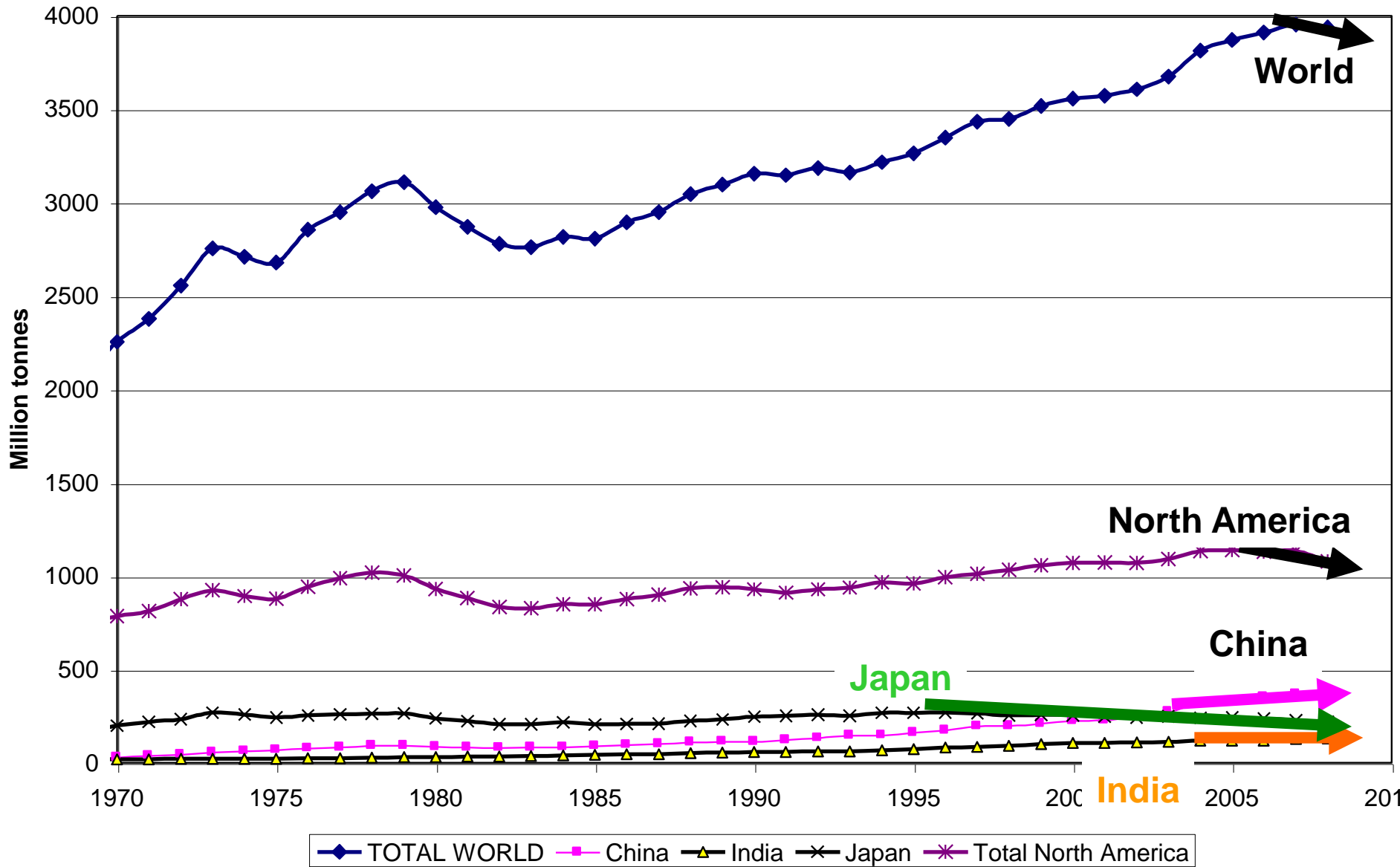
# Oil production world-wide



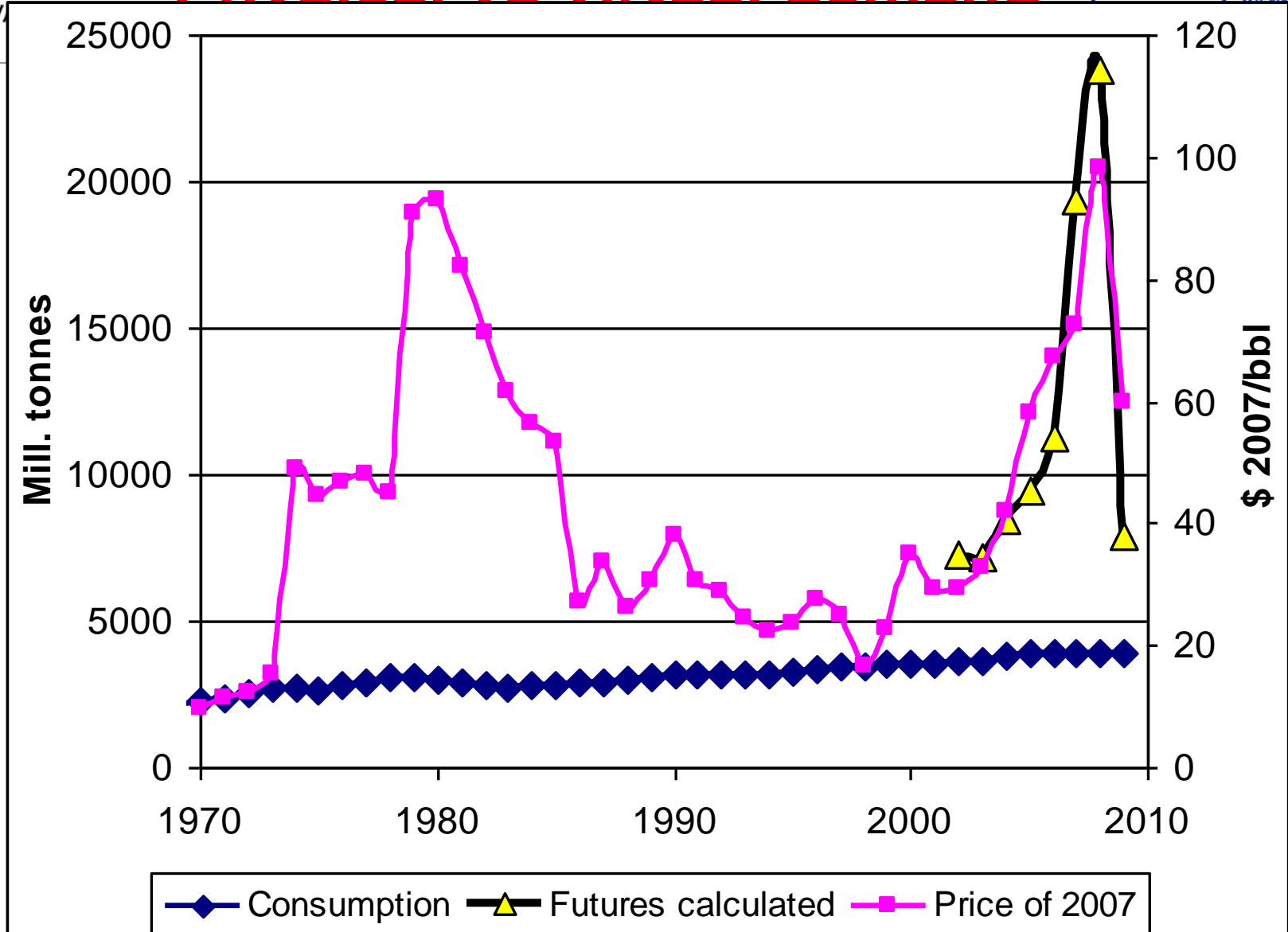
## Oil Consumption



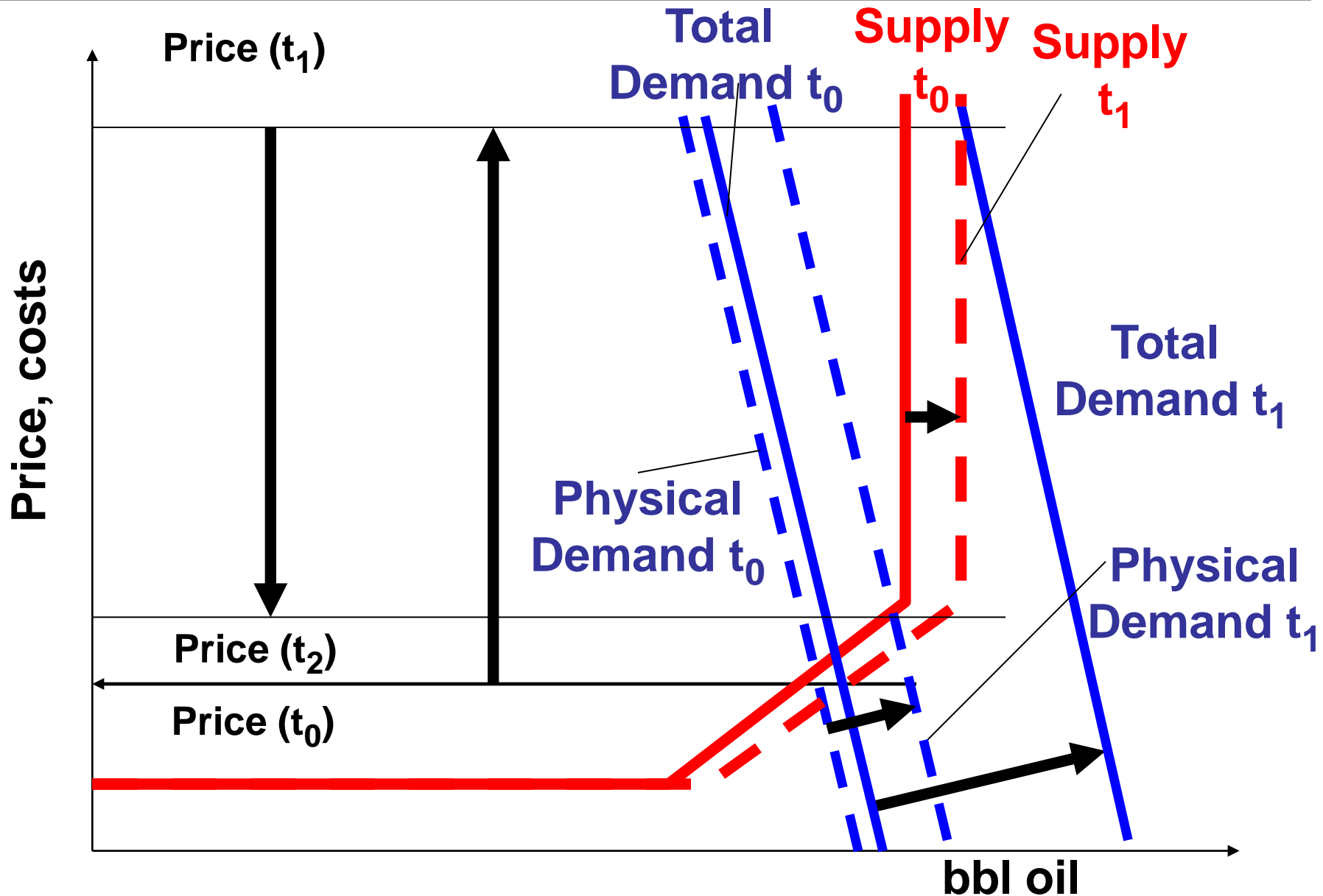
# Oil consumption world-wide and in selected regions



# Physical vs virtual demand



# 2004 - 2008: Increasing demand (incl. speculation)



# 5. CONCLUSIONS

- **Period 1980 – 1985: “sellers market”:** price increases due to OPEC market power and price drops due to significant physical demand drops;
- **oil price and feedstock price increases 2003 – 2008** due to signif. increases in “virtual” demand;
- **decrease in 2009** due to burst of speculation bubble (-> drop in virtual demand); physically, demand & production changed only moderately
- **Currently:** far away from lasting competition in energy markets, speculation increasingly attractive ... regulation needs world-wide level