

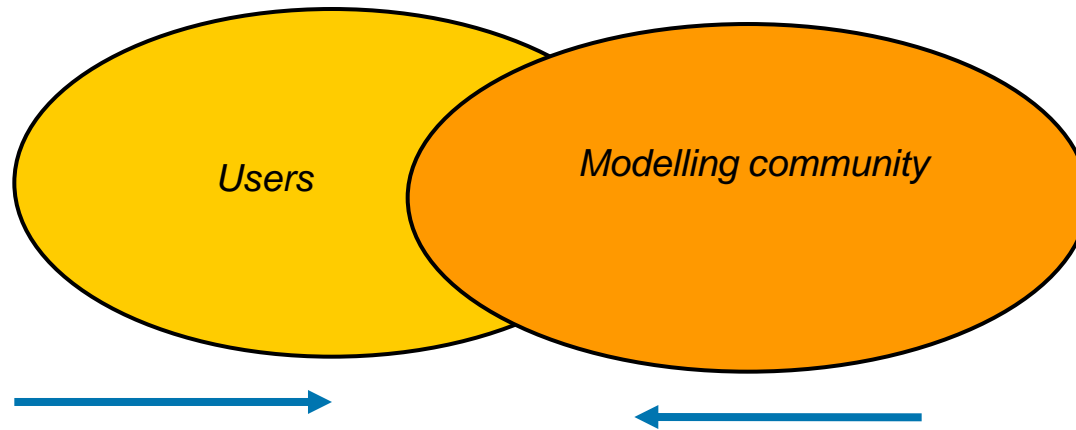
International Energy Workshop (2008)

Bridge the gap between the policy debate and the modelling community

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Corporate Strategy

Closer integration between the users and the modelling community



➤ Industry users understand some aspects of the markets/industries

➤ Need to **understand** the models
- its elements/equations/parameters
- the functioning/dynamics

➤ Need to discuss **key assumptions**

Realism?

➤ Models of the markets/world

➤ Quantification (how much?)

➤ Consistency

➤ Potential wide coverage (EEE)

➤ Accumulation of historical insight

Areas where we need better understanding

Oil and energy markets (E)

- **Price determination**
 - Current and future fundamentals
 - Forward looking markets. The models?
 - Market power and globalisation (natural gas)
- **Production capacities (and transportation)**
 - Reserves
 - (1) Unit costs and (2) increasing complexity
 - Investment level
 - Increasingly strategic
 - Can it be modelled?
 - Should it be handled exogenously?
- **Focus on demand destruction**
- **End-user prices**
 - Currencies, margins, taxes, regulations
 - Modelling of regulated domestic prices?
- **Price elasticities**
 - Indirect and direct policy instruments
 - Income and technology
 - Substitution/alternatives

Other markets/world economy (EE)

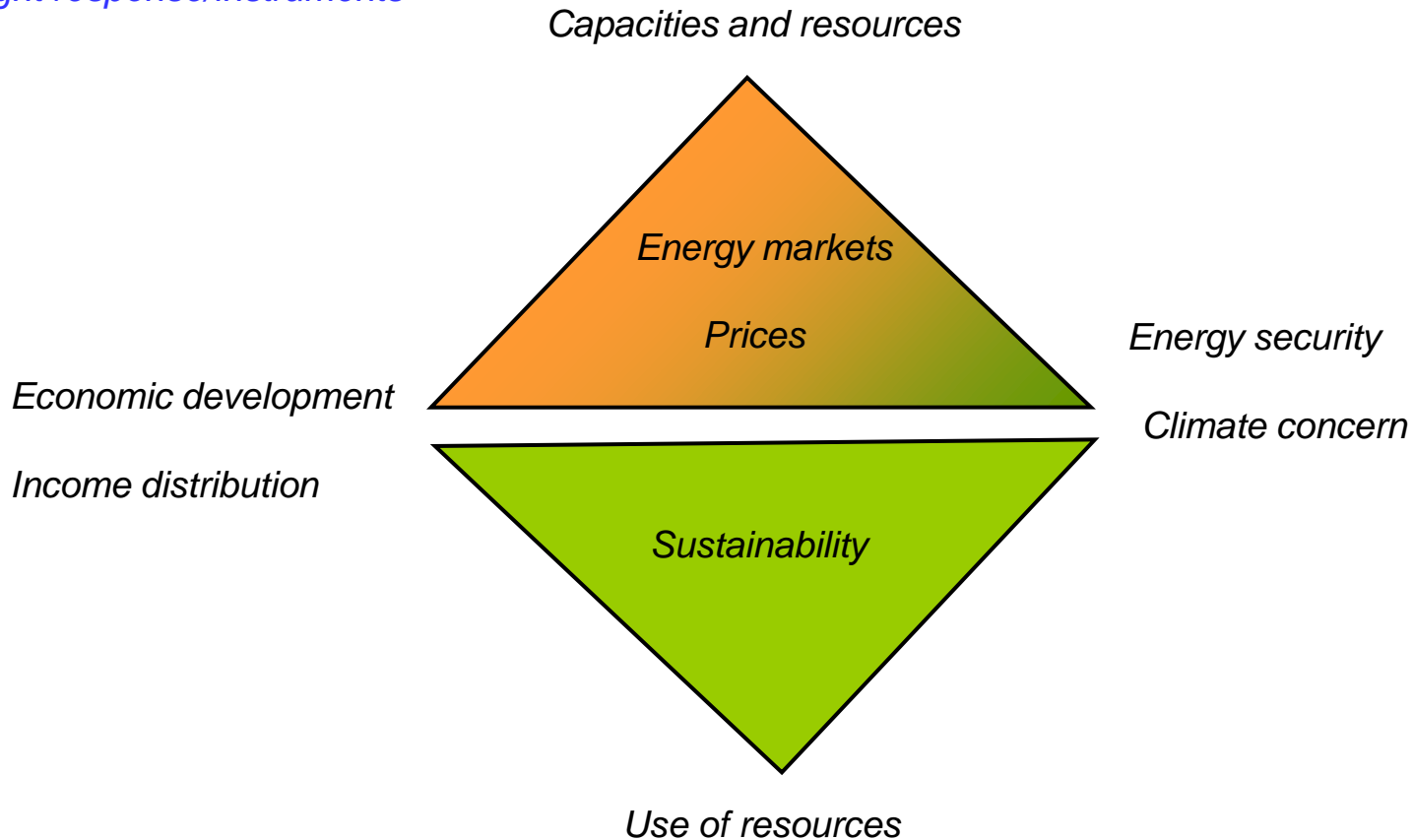
- **Price determination**
 - Financial players portfolio optimization
 - Tightness of other markets
- **Unit costs of production**
 - Supplier markets
 - Markets for technical competence
- **Energy prices and economic growth**
 - Integrated country model

Sustainability (EEE)

- **Regional climate policies**
 - Policy variables in the equations
 - China and India
- **Broader sustainability issues**
 - Availability of resources
 - Income inequality

The policy debate/concerns

- The priorities: current issues vs. future, trade-offs
- The right response/instruments



➔ *The outcome of the political processes (obviously) affect the market development*

Main messages

➤ **Current price discovery**

Future fundamentals and the role of financial players (Do the models explain the recent shock?)

➤ **New heavy trends***

Since the market will be increasingly more forward looking, the model formulation should reflect such a behaviour

➤ **Energy/climate policy will be critical over time**

➤ **Model integration**

The growing interaction between global issues and driving forces partly suggest the use of broad energy-economy models. The rising industry costs are partly driven by other markets

➤ **Large room for judgement**

*Several critical issues** are very challenging to model*

- *Ultimate resources, large resource holders' strategies, capacity development*
- *Energy policies and technology development*
- *Income and price elasticities****

➤ **User integration**

*A very close relationship between the model developer and user is a prerequisite
Focused scenarios/sensitivities would be helpful*

* (1) The emergence of heavyweights like China and India and (2) the resource position for oil and gas

** Capacity development, resource/reserve estimates/relationships

*** Should be a weighted average between historical based estimates and qualified forward looking guestimates