Regulation
Report of PGC B Study Group 1
"Customer oriented and investor friendly"

Amsterdam World Gas Conference 2006

Chairman René Snijder

Room B, 15.30 –17.30 hours, 7th June

The PGC B SG 1 Study

Objective

- Provide the view of the industry on what the requirements are for an efficient regulatory framework that fits current market developments and investors needs to the benefit of the end customer

- Formulate guidance for the debate about the effectiveness and efficiency of regulatory measures

Scope

- The study concentrated on mid stream regulation and its effects on wholesale supply to fit PGC B work program about the strategic developments in the industry

Topics of the report

1. ***New market conditions, a Paradigm Change?***
2. **Market development phases**
3. **The regulatory framework**
4. **Crossing borders**
5. **Industry response**

Market Paradigm Change ?

- Gas no longer the abundantly available commodity like any other commodity as perceived end-nineties
- Energy policy and geopolitics are prominently back on political agendas due to increased import dependency, high prices, mergers, under-investment and climate change
- The resources are mainly controlled by national companies.
- Consumer regions and producers seek diversification
- A shift from national, to regional, to a global gas market is ongoing (network integration and LNG)

Topics of the report

1. New market conditions, a Paradigm Change?

2. ***Market development phases***

3. The regulatory framework

4. Crossing borders

5. Industry response

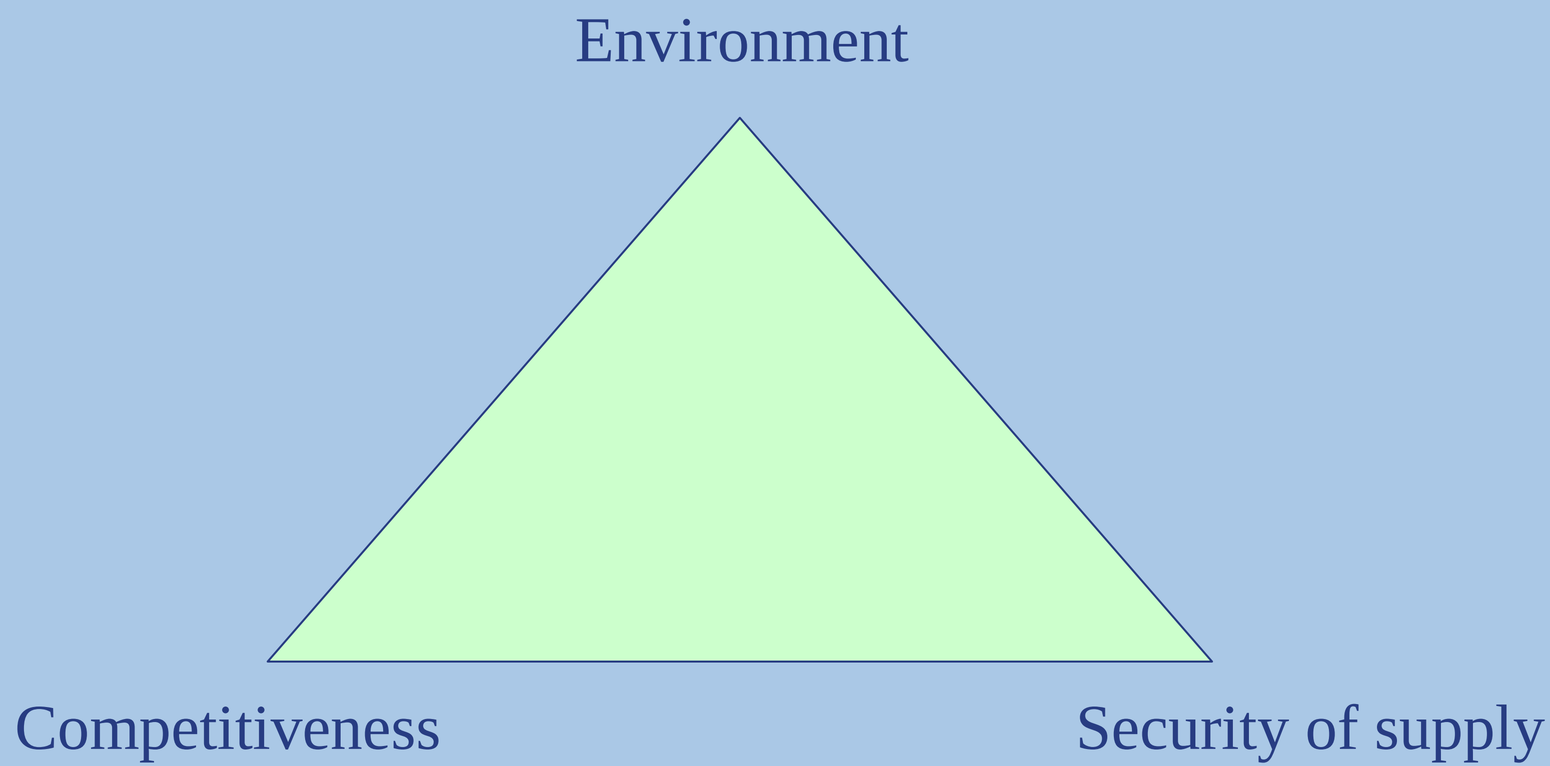
The gas market life cycle

Different market development phases	Different regulatory needs
• **Start up** (grass root)	• **State participation and/or exclusive rights**
• **Infancy market** (product marketing)	• **Managed markets, regulated prices, integrated companies**
• **Market growth** (more gas supply sources)	• **TPA to introduce competitive industry sales, privatisation**
• **Maturing** (branding)	• **Unbundling, full customer choice, liberalised market, mergers, vertical integration**

Topics of the report

1. New market conditions, a Paradigm Change?
2. Market development phases
3. ***The regulatory framework***
4. Crossing borders
5. Industry response

Energy policy



Market where possible, government when necessary

Competition Policy

Competition is to benefit society

- Privatisation (less government)
- Liberalisation/deregulation (more market)
- No more demarcation, segmentation, exclusive rights etc.

Supervision ex-post or ex-ante?

Market Design (the role model)

Market design for mature markets is creating;

- Regulation (ex post) for de-facto monopolies and strict enforcement of competition law (ex-ante) for markets
- A liquid and transparent wholesale market
- Full customer choice (industry/power to start with)
- Unbundling (ownership) of infrastructure and trading
- Price signals for infrastructure/production investments

No government needed. Security of supply can theoretically be enhanced/maintained as new investments along the gas chain are based on market price signals (lead time?)

Many industries and governments now seems to feel less secure, seeking measures to improve the investment climate

Mature markets are changing

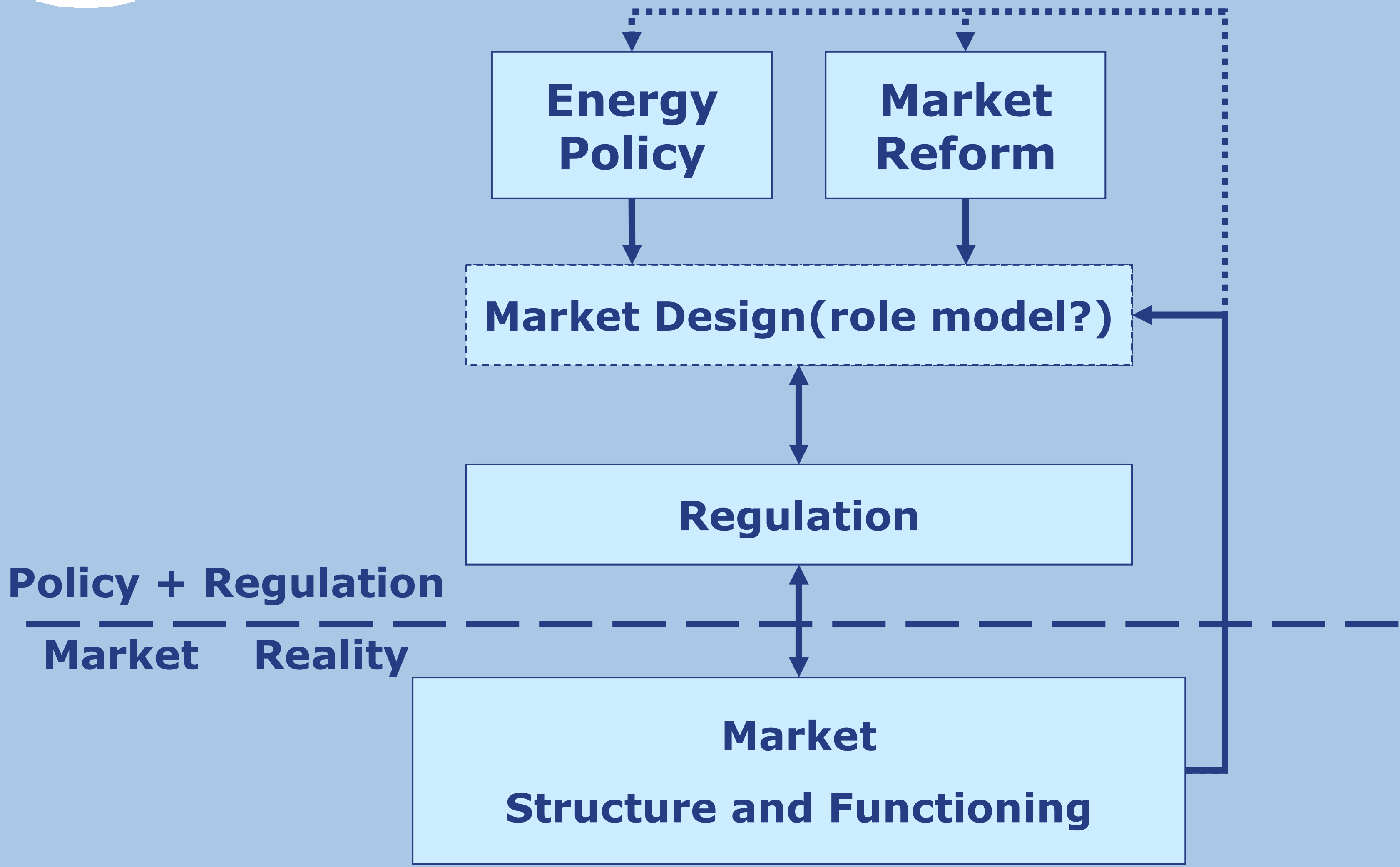
Till recently markets like UK, USA, Australia etc. had specifics circumstances

- **Indigenous production met or exceeded domestic demand**
- **One jurisdiction for the gas chain**

But the EU, USA, Asia face growing import dependency

- **Security of supply back on the political agenda and the regulatory systems are being adjusted in line with market developments (more investor support)**

Evolving Regulatory Framework

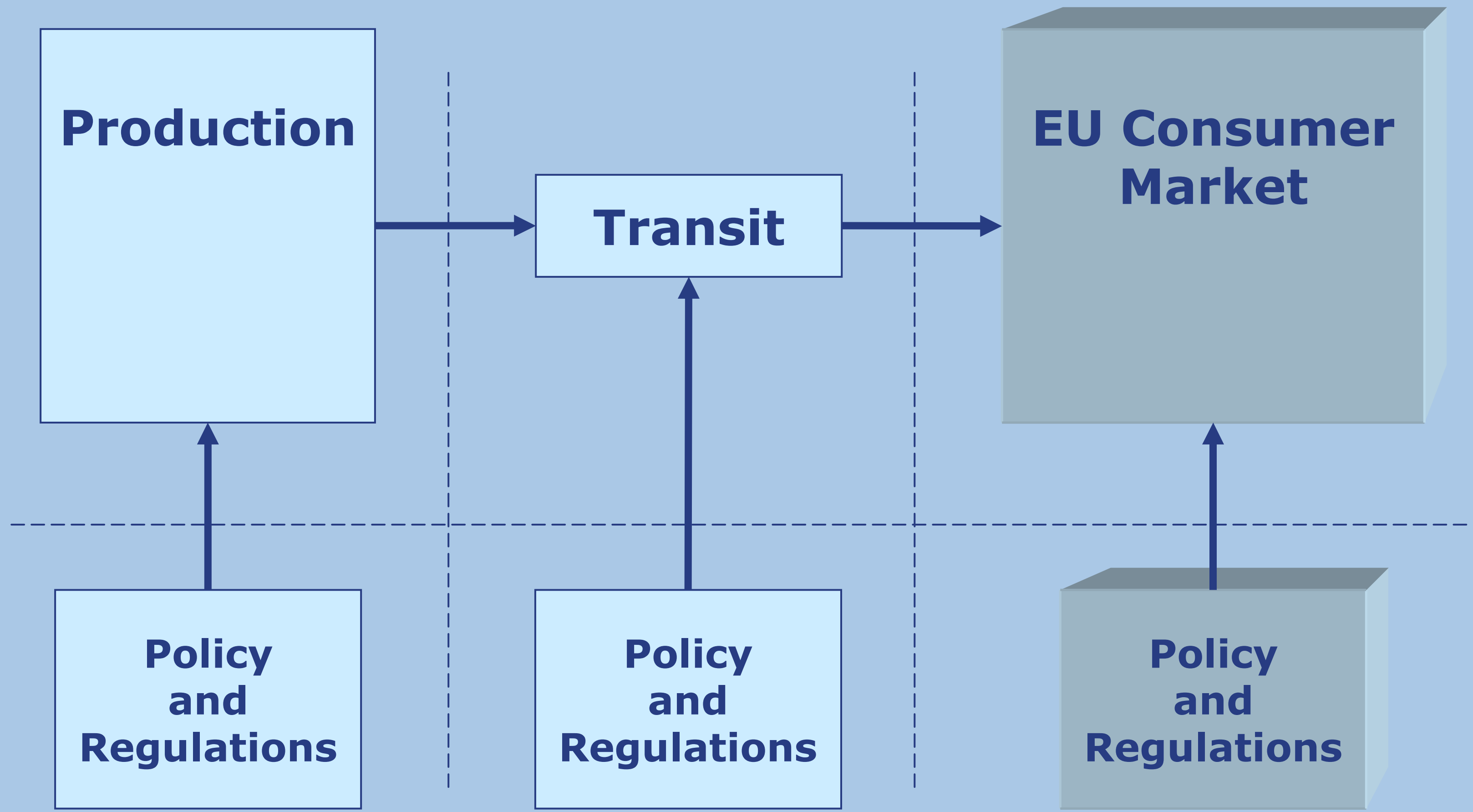


Topics of the report

1. New market conditions, a Paradigm Change?
2. Market development phases
3. The regulatory framework
4. *Crossing borders*
5. Industry response

Value Chain Across Borders

(How to allocate the rent)



WTO, Treaties, compatible regulation

Main regulatory risks for investors along the gas chain

From the downstream to the upstream (demand security)

- End user gas price regulation
- Long term grid access to reach contractual partners
- Transit conditions
- Regulatory stability along the chain
- Resource management by local and national oil/gas companies
- Production licensing and government take

Long term contracting, mergers and vertical integration to manage investor risk along the supply chains?

Under-investment? Almost $3 Trillion next 25 years (IEA)

Topics of the report

1. New market conditions, a Paradigm Change?
2. Market development phases
3. The regulatory framework
4. Crossing borders
5. ***Industry response***

Mergers and acquisitions

When incumbents lost captive markets, they;

- **seek economies of scale (horizontal mergers)**
- **seek economies of scope (gas/electricity)**
- **seek vertical integration (upstream)**
- **seek a wider portfolio (diversification)**
- **cross borders for market expansion**
- **Sceptical/reject ownership unbundling to maintain market power**

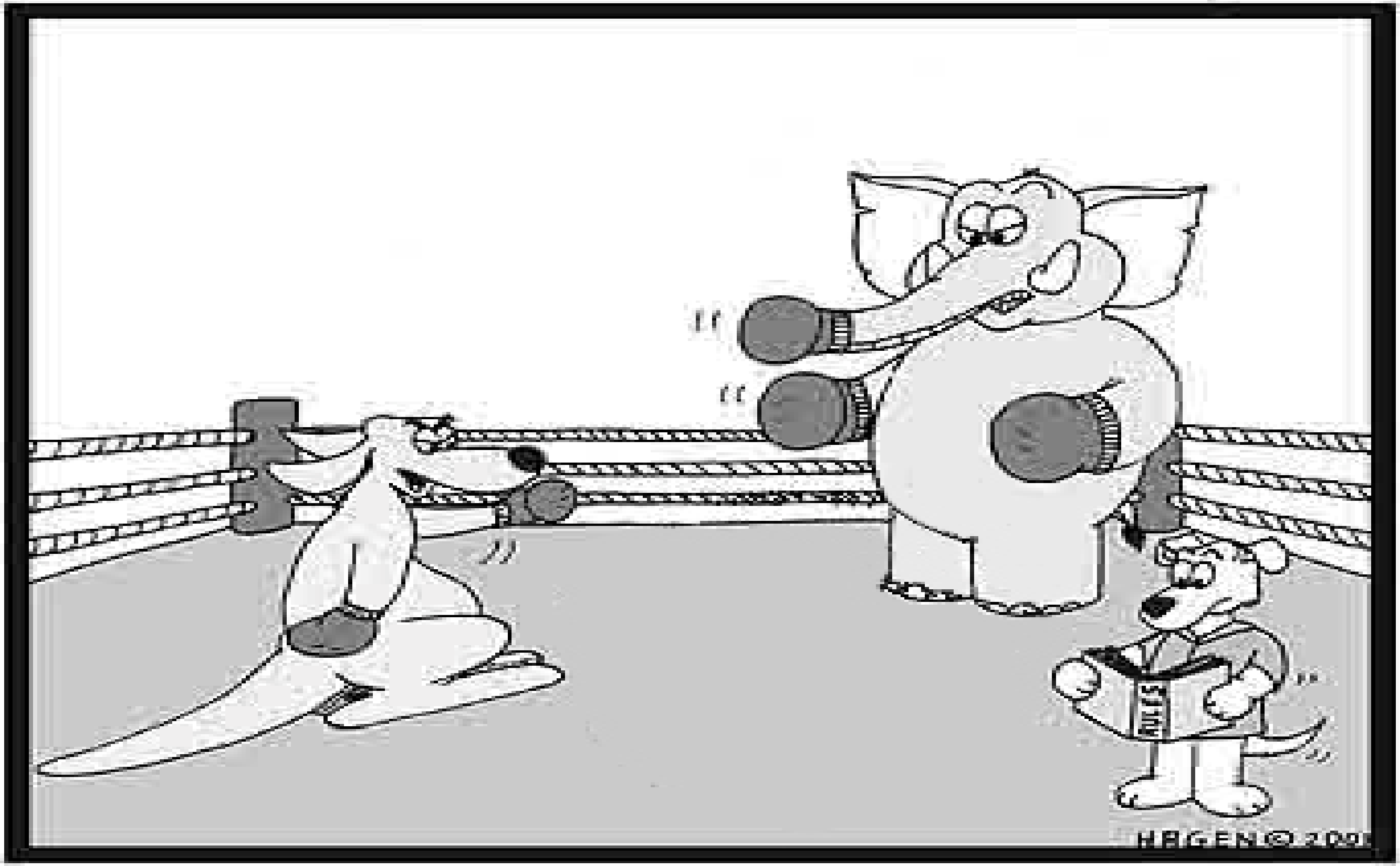
Major wholesale gas/electricity companies invest Upstream

(National) production companies invest mid/downstream

Conclusions

- How to strike a regulatory balance between the different policy objectives of security of supply and the competitive market.
- Should regulation try to steer the markets or to supervise markets?
- How detailed should regulation be?

Simple basic rules preferred



Come on Referee!
There must be a rule against this...

Summarizing

1. A Paradigm Change is occurring as a global 'sellers' market seems to emerge requiring adaptive regulation
2. There is no single regulatory system applicable to all markets and market development phase
3. Energy policy reviews in US and EU conclude that some regulatory adjustments are required to improve the investments climate for security of supply reasons
4. Long term contracting and vertical integration still proven instruments for coordinated gas chain investments in practice
5. Markets players decided not to sit back and are trying to carve out new market positions to remain ahead of anticipated changes