

POLITICAL ECONOMY OF REGULATION

Ex-ante regulation – the mobile telephony case

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Agenda – EX-ANTE REGULATION

- Key issues
- Test your intuition – areas for ex-ante intervention
- Understanding the political economy of ex-ante regulation
 - Why is ex-ante regulation necessary?
 - What impact does it have on your industry/ firm?
 - How does it effect your working life?
 - How can ex-ante control become part of your business strategy?
- Application to the mobile telephony industry

Key issues to be addressed

- What justifies ex-ante intervention?
- How are network industries affected by different types of ex-ante regulation?
- How do regulated firms (ab-)use ex-ante regulation to their benefit?

Test your intuition – areas for ex-ante intervention

What are/were key regulatory issues in the following network industries:

	X	X	X	X	X
Rail					
Electricity					
Telecom (fixed net)					
Telecom (mobile)					
Postal service					

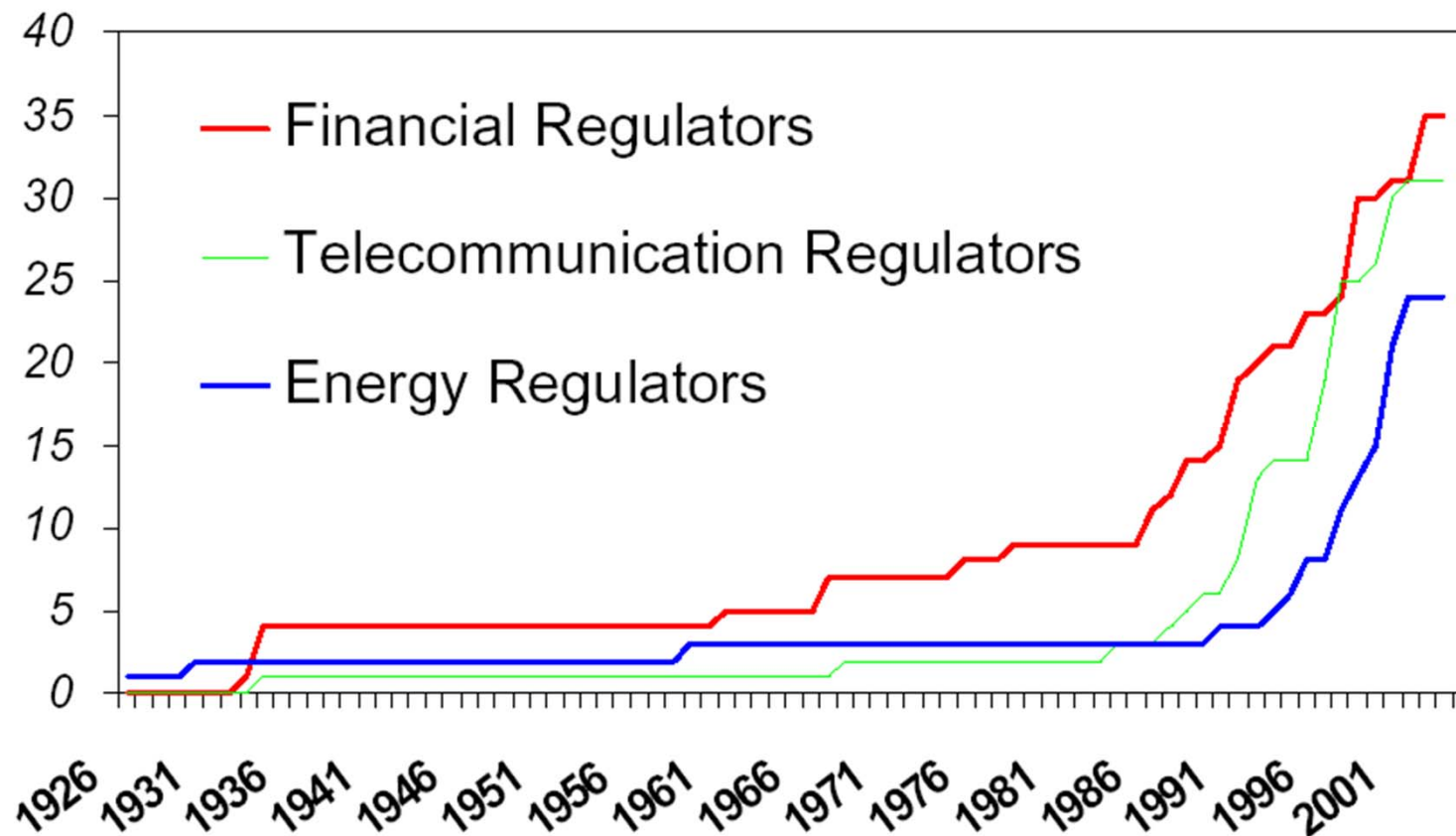
Test your intuition – areas for ex-ante intervention

What are/were key regulatory issues in the following network industries:

	Access/ interconnection pricing	Retail prices	Universal service obligation	(Unbundling)	Other
Rail	✓	✓	Tendering	✓	e.g. intermodal comp
Electricity	✓	✓	✓	✓	e.g. CO2
Telecom (fixed net)	✓	✓	✓		
Telecom (mobile)	✓				
Postal service	✓	✓	✓		e.g. Issuing of stamps

Independent Regulatory Authorities in OECD Countries

...a phenomenon of the 1990s!



Source: OECD 2005

Motivation for ex-ante regulation

- Focus on **network industries**
- **Traditional solution:** national monopolies, public service obligations
 - Conflicts of interest – political and commercial
 - Cost-plus approach – lack of hard budget constraints
- **“New” approach:** introduce competition where feasible and regulate those parts where regulation is required
 - Clearly defined objectives for regulated firms
 - Modern regulatory approaches take effect on incentives into account
- Regulation and/or competition policy – **complements or substitutes?**

Differences to ex-post intervention (competition policy)

	<u>EX-ANTE- regulation</u>	<u>EX-POST competition policy</u>
Information required:		
		
Effectiveness:		
Ressources:		
Objectives:		
Coverage:		
Key issue:		

Differences to ex-post intervention (competition policy)

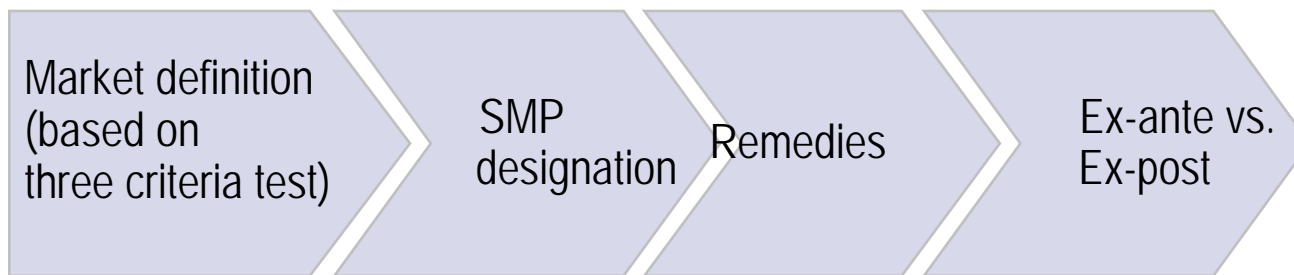
	<u>EX-ANTE- regulation</u>		<u>EX-POST competition policy</u>
Information required:	Foresee future	↔	Act on suspicion of harm or complaint
	Entrepreneurial/conduct	↔	Assess outcome/structural remedies
Effectiveness:	No or little delay	↔	Patient may be dead
Ressources:	More	↔	Less
Objectives:	Additional aims (USO)	↔	Focus on efficiency
Coverage:	Often sector-specific	↔	Usually horizontal
Key issue:	Risk of too much intervention	↔	Risk of too little intervention

Will ex-ante regulation last?

- “EU-led regulation liberalised Europe’s telecommunications sector in the 1990s, creating growth and driving prices down. The 2003 electronic communications framework created a level playing field for a converging world. **Regulation is seen as temporary**, needed only until normal market conditions develop, and is applied regardless of the technology, stimulating innovation.” (http://ec.europa.eu/dgs/information_society/regulation/index_en.htm)
- **Ways out** of ex-ante regulation?
 - Technological developments: fixed/mobile competition
 - Structural measures: Increased capacities at interconnection points, unbundling
 - Reduce burden by simplifying the rules
- **Incentives of the regulator?**

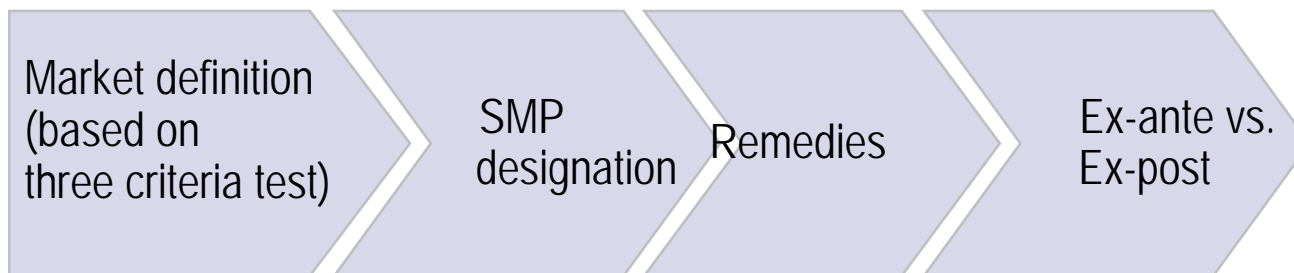
Ex-ante regulation – process and approaches

Process leading to regulation



Ex-ante regulation – process and approaches

Process leading to regulation



Typical approaches

Top-down historical cost

Cost-modelling

Benchmarking

Ex-ante regulation – challenges and approaches

■ Challenges for (ex-ante) regulation

- Significant (entrepreneurial) information required to set prices
- Information is mostly with the regulated firms
- Regulated firms will engage in strategic reporting

■ Ways to address these challenges

- Set prices for a longer period of time and allow profits (RPI-X Regulation)
- Build-up industry expertise
- Use one or more of the 3 approaches: benchmarking, top-down (accounts), cost modelling

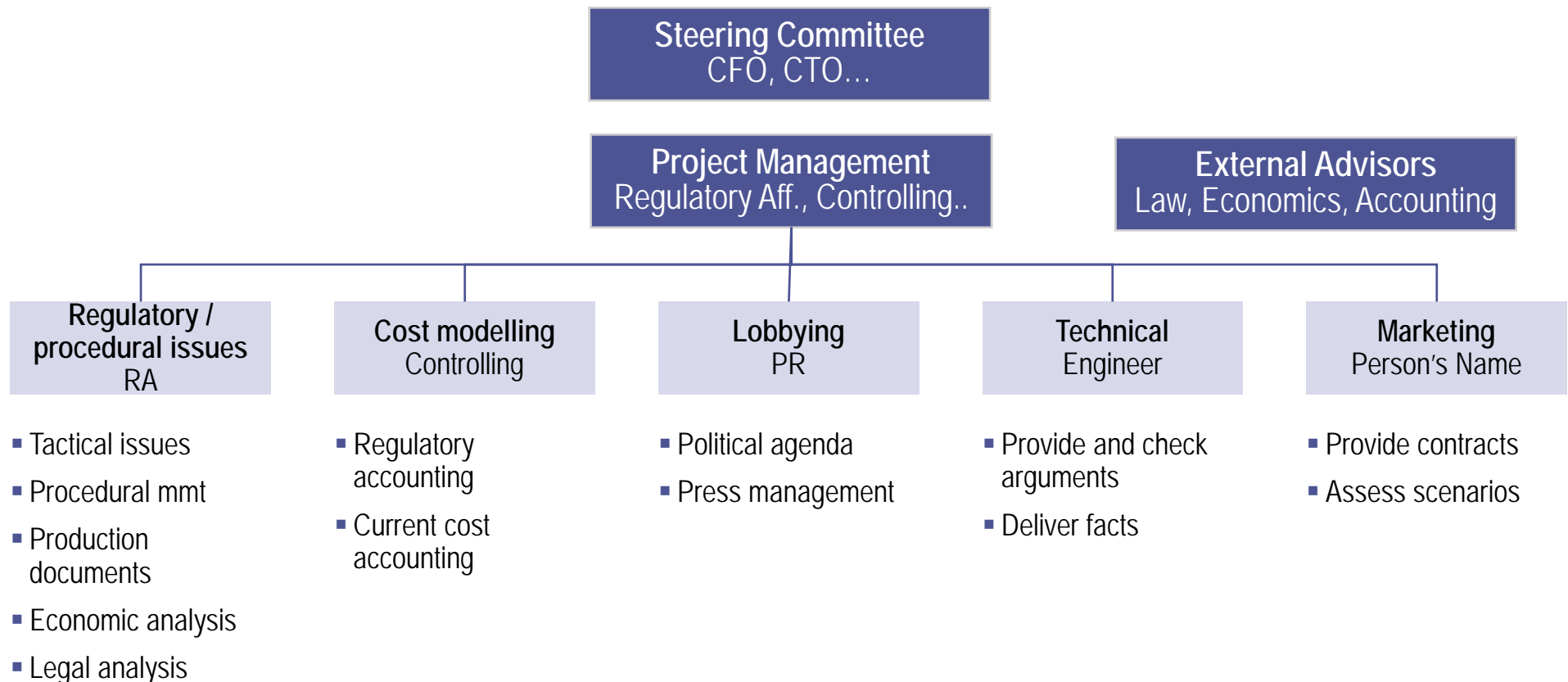
Ex-ante regulation – approaches

- **Benchmarking:** compare with others in the same industry (abroad or domestic)
 - Account for differences that are not the firms' responsibility
 - Often only prices are observable (and approaches to regulation differ)
- **Top-down (accounts):** Identify costs by allocating costs derived from the accounts
 - (External) accounting data not ideal for regulatory purposes (driven by tax law)
 - How to adjust for inefficiencies?
- **Cost modelling:** construct hypothetical efficient operator
 - Cumbersome but addresses some of the issues above
 - Leaves a lot of discretion
- Often a combination of the above is used

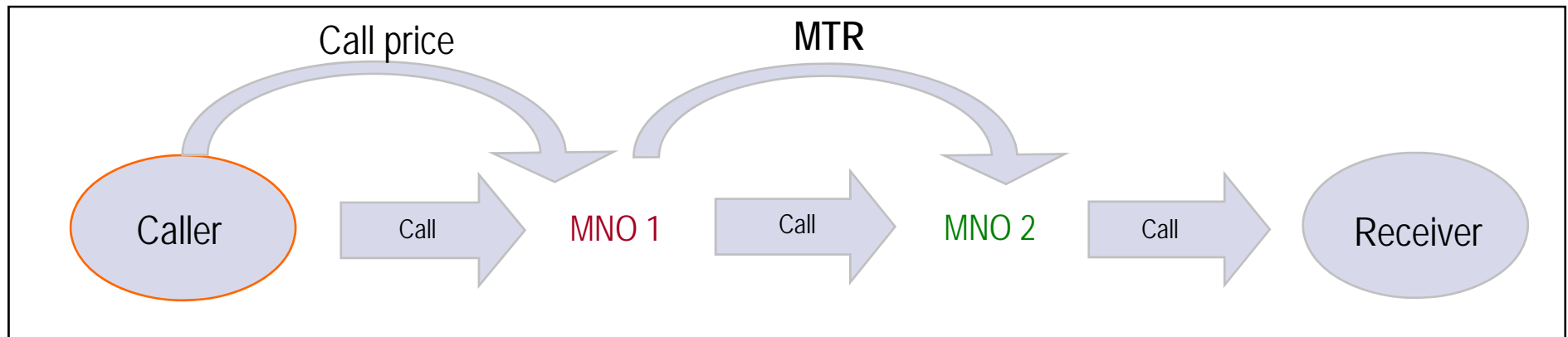
Required regulatory decisions

- Which **activities and assets** belong to the regulated services (e.g. regulatory asset base)?
- What is accepted as **efficient** (e.g. UMTS licence)?
- How should **common costs** be allocated (e.g. Ramsey pricing vs equal proportional mark-up)?
- How should **fixed costs** be treated (e.g. LRIC)?
- How can regulators account for positive and negative **externalities** (e.g. network externalities)?
- What **depreciation method** should be used (e.g. economic depreciation)?
- Best method for determining the **cost of capital** (e.g. WACC)?
- ...

How does it affect your working life?



Case Study: Mobile Termination Rates (MTRs)



The relevant market

- What choice to you have when you wish to call me?
 - Regulators define markets for termination on each individual network
 - Monopoly for this service – **conjecture of market power: high call prices**

- But
 - High MTRs make each subscriber more valuable
 - Intensified competition in the retail market – lower subscription fees and handset subsidies
 - **No excess profits if the overall market is competitive** – issue of pricing structure and not excess profits

- Welfare effect? UK competition authority: Charge control yields welfare *gain* of £325m to £700m

Various approaches in Europe: Benchmarking vs. cost-oriented regulation vs. cost models

	AT	BE	CY	CZ	DK	EE	ES	EL	FR	HU	IRL	IT	LT	LU	LV	NL	PT	SE	SI	UK
Bottom-up modelling								✓					✓			✓		✓		✓
Top-down LRIC/HC	✓	✓	✓	✓			✓		✓		✓	✓			✓				✓	
Benchmarking					✓	✓				✓				✓			✓			

Source: Regulators' websites and EC comments to the decisions imposed by national regulators (2006).

Approaches to rate regulation

■ Benchmarking

- Adaptation of comparative values with the help of factors like density of population, network coverage, network usage, differences in labour costs and property costs

■ Bottom-up model

- Cost model of a hypothetical network operator
- "Anchors" used as parameters of infrastructure – all other elements considered in their optimised form
- Substantial task (6 months)

■ Top-down models

- Allocation of total costs for different services (based on parameters of usage)
- Use of economical amortisation approach and possibly adaptation after replacement costs
- Often as addition to Bottom-up models

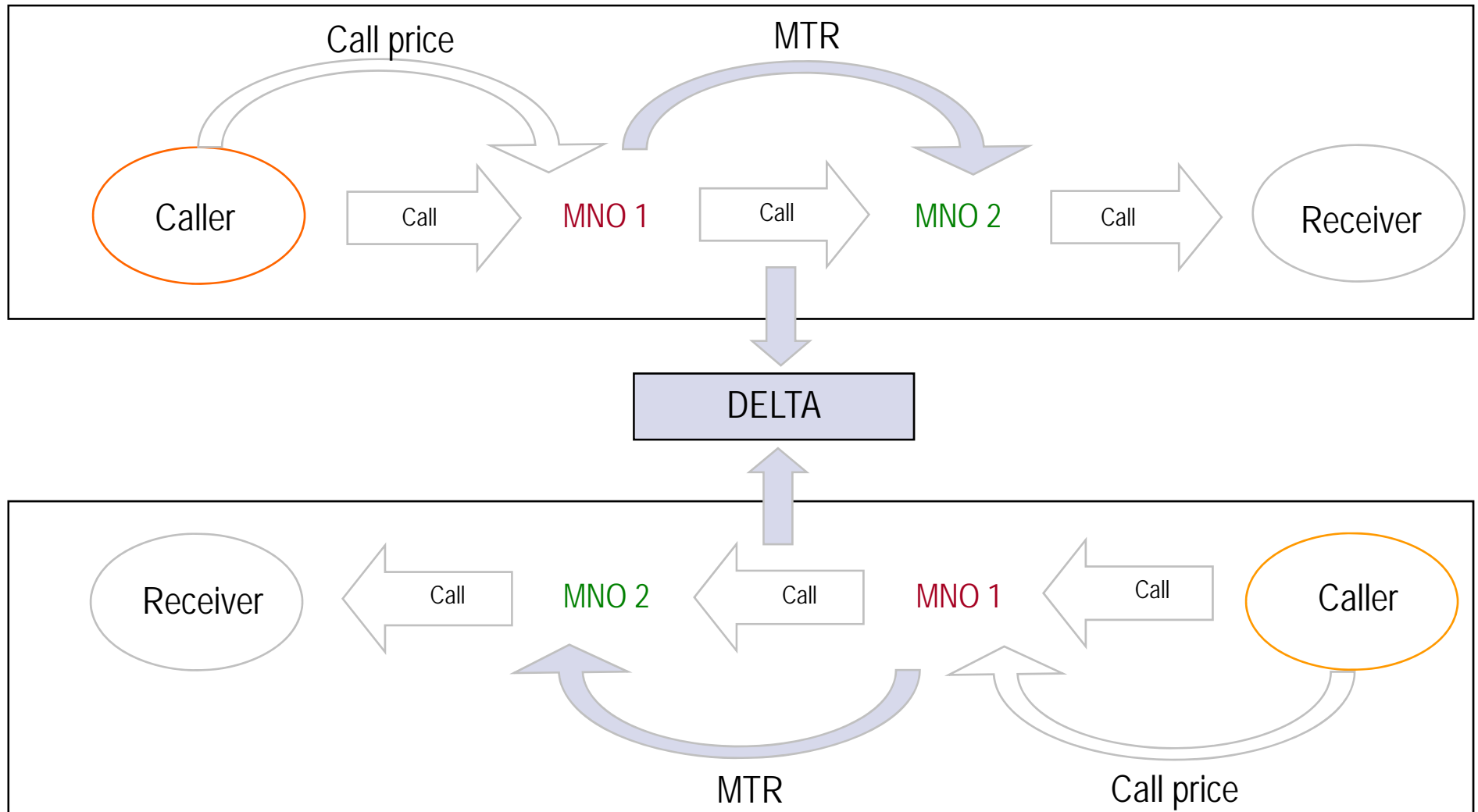
Use regulation to "throw rivals off-balance"

E-Plus status update ...and we did things differently		
Customer targeting	<ul style="list-style-type: none"> Handpick segments with tailored offerings 	<ul style="list-style-type: none"> Post Paid focus, highest H2 net adds in market New brands: BASE, Simyo, Ay Yıldız and MVNOs with fast awareness build-up, > 1 mn subscribers in 6 months
Proposition	<ul style="list-style-type: none"> Turn core services into great value 	<ul style="list-style-type: none"> Launch flat rate for voice and data ARPU and MoU of new offers significantly higher than E-Plus brand
Channels	<ul style="list-style-type: none"> Redesign pull & its economics 	<ul style="list-style-type: none"> 21 new stores 9 "MVNOs" (incl. Aldi/Medion and Jamba)
Deployment	<ul style="list-style-type: none"> Focus regionally, maximizes impact of pull actions 	<ul style="list-style-type: none"> Two test regions launched, very encouraging results Strong nationwide competitive response led to national response of BASE brand
Regulatory	<ul style="list-style-type: none"> Launch offensive to throw rivals off-balance 	<ul style="list-style-type: none"> Groundwork intense regulatory response completed Belgium example shows direction of our actions
Financial model	<ul style="list-style-type: none"> Accelerated revenue growth leading to margin improvements 	<ul style="list-style-type: none"> Ultra fast payback times, leading Post Paid net add share with slightly improved EBITDA margins despite more marketing spend

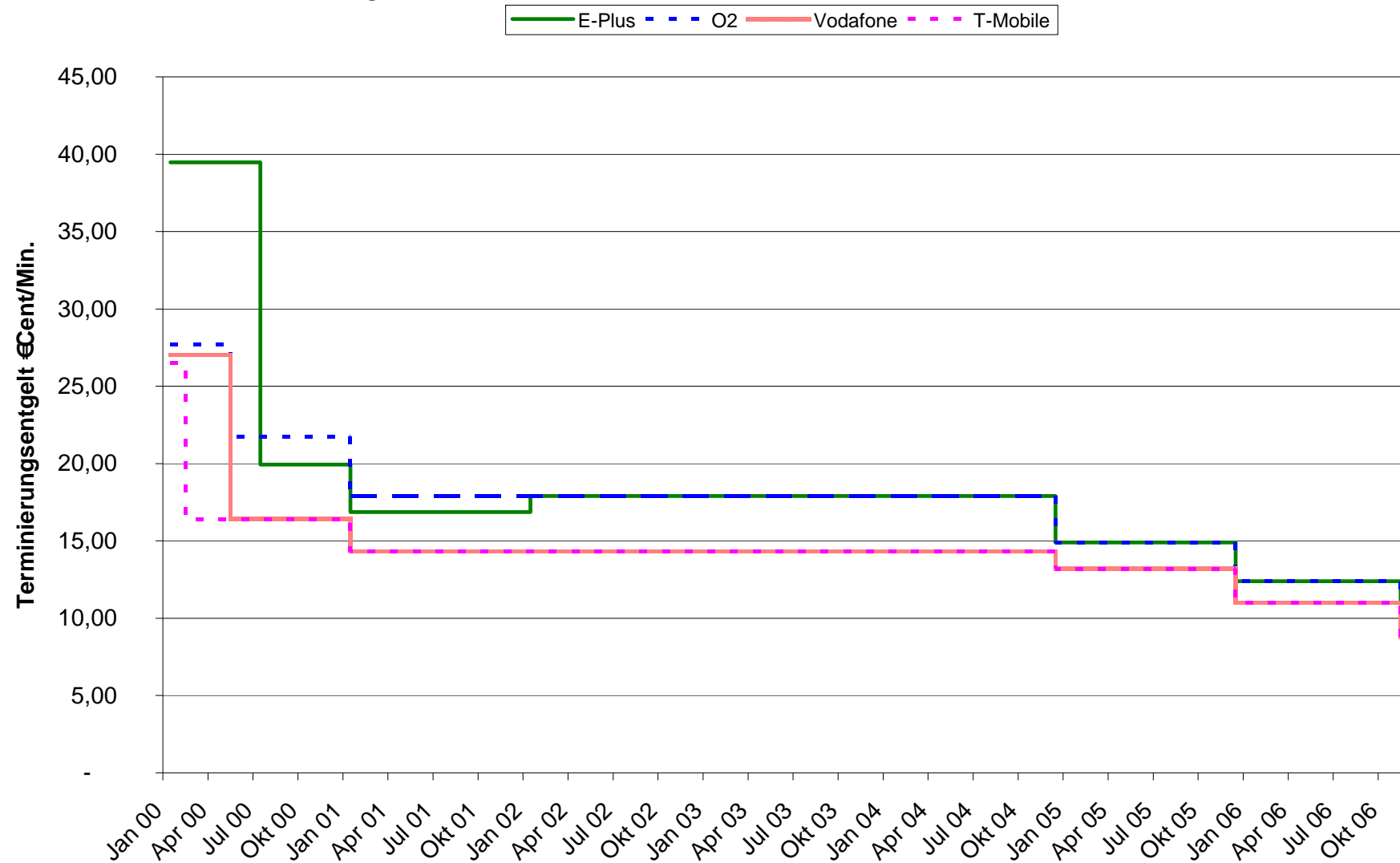
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Quelle: KPN presentation on quarterly reports Q4/2005 unter <http://www.kpn.com/kpn/show/id=1385690>

The "delta" has significant financial implications



MTRs in Germany 2000 – 2006

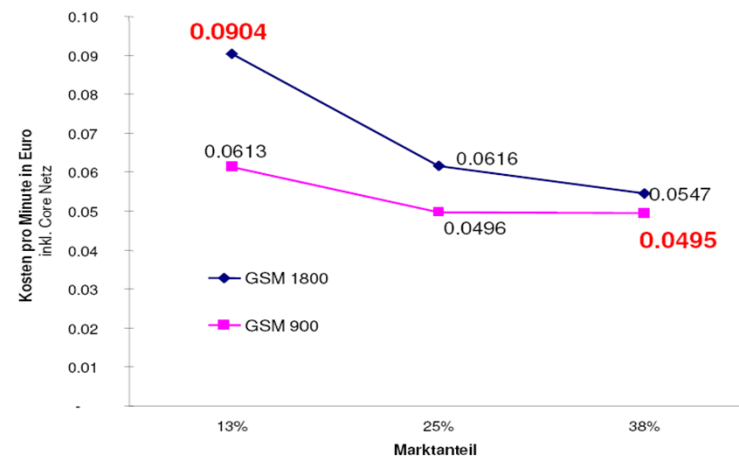


Pro MTR-delta

- Incentive is clear: given your own rate you wish to lower the MTRs of your rivals

3. Kostenunterschiede der D-Netz- und der E-Netzbetreiber bei der Terminierung (V)

Durchschnittliche Netzkosten pro Minute für Terminierung



WIK
CONSULT

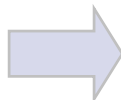
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Pro MTR-delta

- How would you argue?

Pro MTR-delta

- **Factual differences** in costs and quality because of 900 vs 1800 MHz
- Regulation “should **counteract asymmetry**” – small MNOs have higher cost per minute due to low traffic in network
- Lower market share due to **late-comer disadvantages**
- Note also: Smaller players may be less hurt by low MTRs - Large MNOs have a higher share of on-net calls

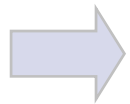
 Many regulators have allowed a delta

Contra MTR-delta

- How would you argue?

Contra MTR-delta

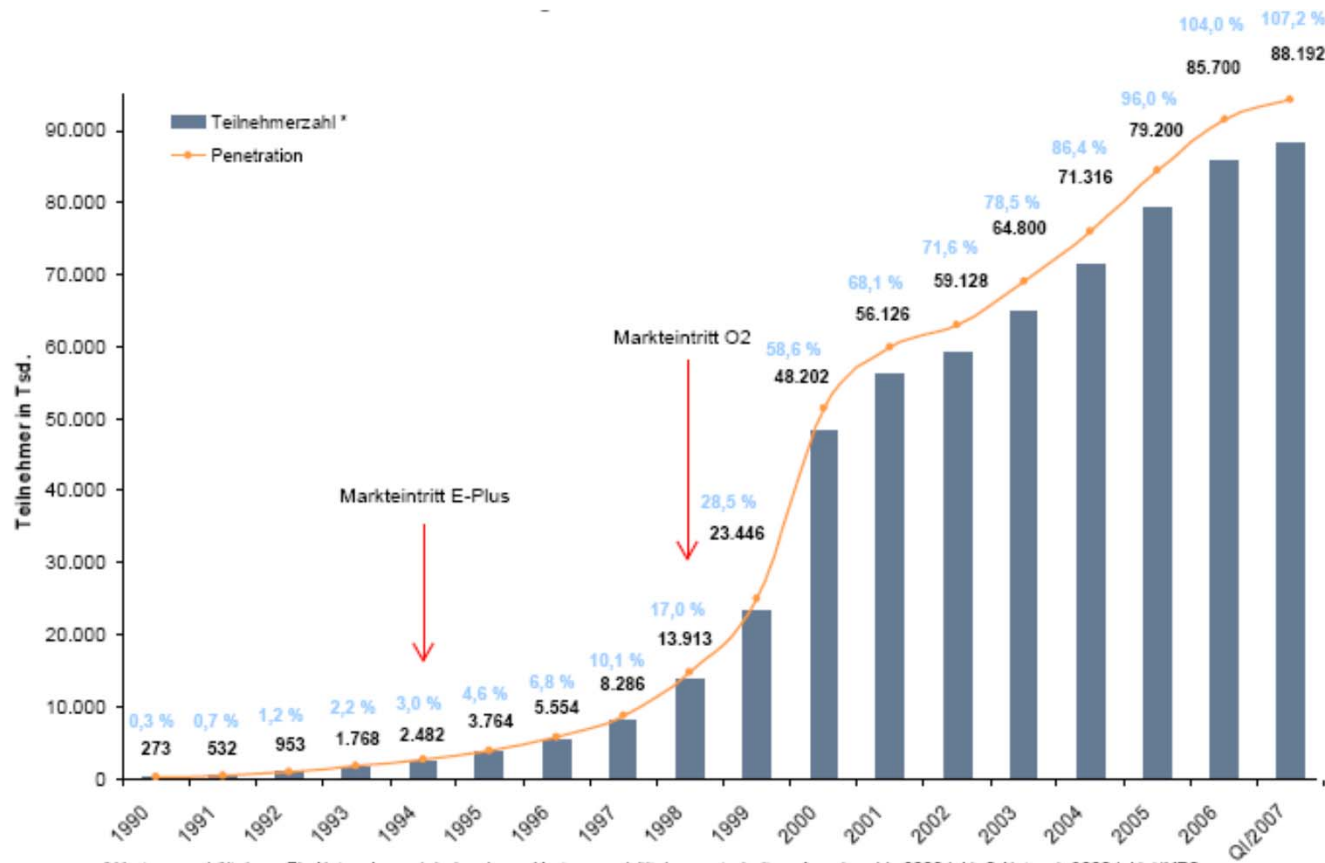
- Differences in market shares reflect **management errors** (coverage)
- **Late-comers had all opportunity** to participate in market growth
- Compensation for low traffic volume **diminishes incentives** to compete for traffic
- **Cost differences are minimal**



Regulators are phasing out the delta

Contra MTR-delta

- Differential charges should only reflect cost differences between operators that result from factors outside operators control

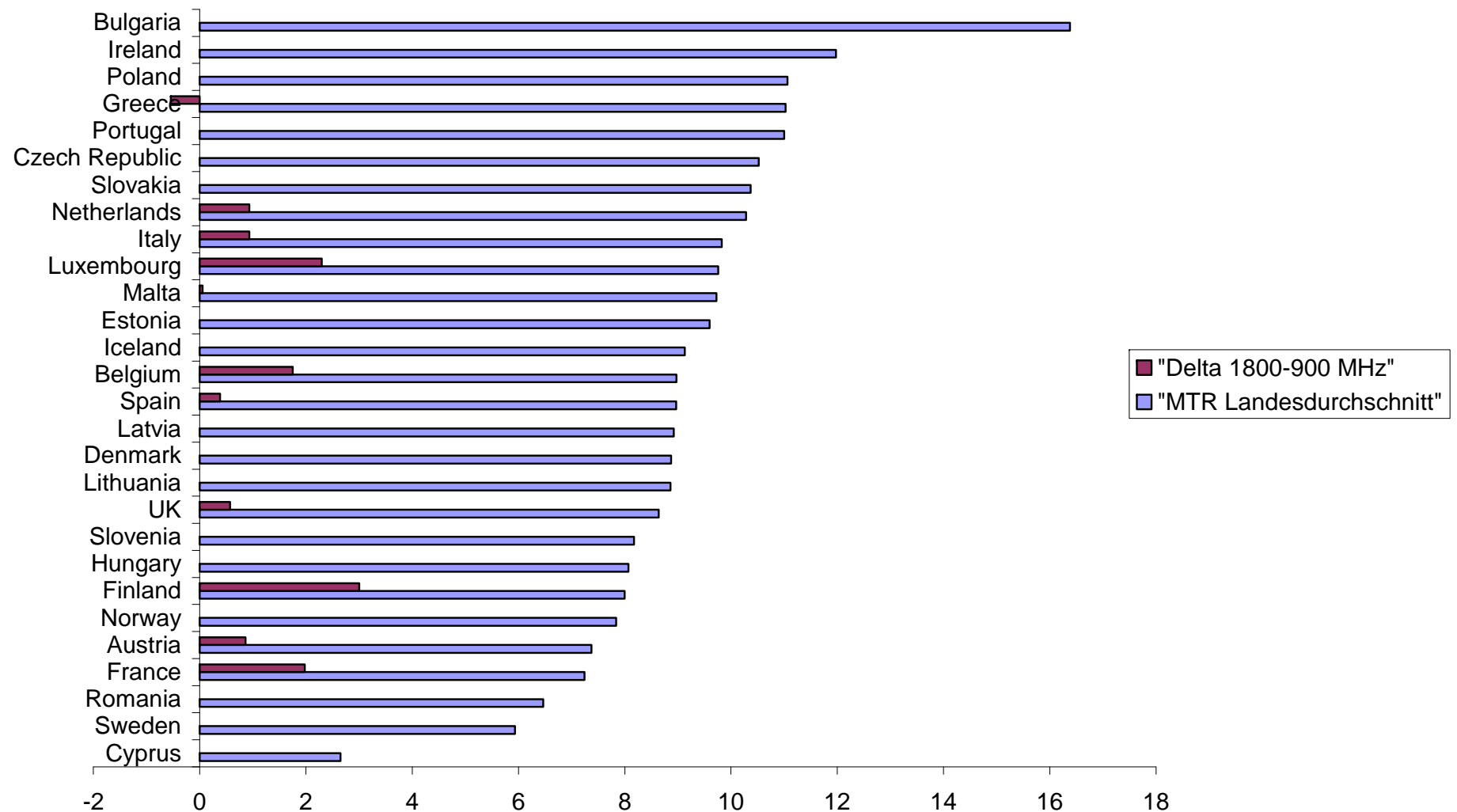


Contra MTR-delta

Asymmetric regulation distorts dynamic competition

- Regulators need to consider whether the same charge should be applied to all competing operators and its impact on competition
- Some regulators have allowed for higher charges for factors outside operators' control, eg 900/1800 spectrum differences
- Compensations for small market shares does not appear appropriate:
 - If an increase in market share leads to a larger delta, this reduces the incentive to compete aggressively for customers
 - In a number of markets, later entrants have gained higher market shares than earlier entrants, e.g.
 - Orange UK (last entrant, 25 % market share)
 - Cosmote Greece (five years later than other two operators, market leader with 37%)
 - A lower market share may instead reflect an operators' commercial decisions, such as relying on limited coverage as was the case with a number of later entrants

Mobilfunkterminierungsentgelte in Europa: arithmetische Länderdurchschnitte und Delta zwischen 1800MHz und 900MHz Betreibern (1.12.07 – 30.11.08 in €Cent/Min)



MTR regulation: strategic issues

- Be **consistent** in your arguments (over time and across countries)
- Put **resources** where they are effective (cost accounting? Benchmarking? Lobbying?)
- Prepare for **fast** responses to regulator's demands
- **Evaluate** (long-run) implications of your arguments
- Be aware that the public discussion is usually far off the true welfare issues

Take-away points

- **Historical context:** facilitate liberalisation of state-owned monopolies
- **The case for ex-ante regulation** has to be made with reference to comp policy: why is ex-post control insufficient?
- Key areas are **access (price) regulation** to enhance competition and **retail price regulation** to protect consumers
- There is a lot of **variance** in regulatory methods and outcomes: benchmarking, top-down cost allocation, cost modelling
- Where regulated firms compete they often have diverging interests. Thus, operators can (ab-)use **regulation to their benefit**

Some Literature

In ex-ante regulation in general:

- Telecoms reform Press Factsheets

http://ec.europa.eu/information_society/newsroom/cf/itemdetail.cfm?item_id=3723

On mobile termination rate regulation:

- UK regulator on mobile termination rate regulation

<http://www.ofcom.org.uk/consult/condocs/mct/summary/mct.pdf>