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Telecoms and Utilities Partnerships in Fibre Deployment

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Opportunities and risks of fibre deployment

- Development of **high-speed Internet** (‚fibre to the home' FTTH)

- New Services with **potentially large benefits for consumers**
  - Multiple HDTV - reception
  - High-end interactive entertainment
  - Networked life and work

- But: **Considerable uncertainty** with respect to demand and valuation of such services
- Substantial **investments** are required

- **New challenges for investors and regulation**

Telecom and Utilities partnerships for fibre deployment

- **The Swiss example**
  - Swisscom and EVUs of Basel, Bern, Genf, Luzern, St. Gallen and Zürich deploy fibre jointly
  - Competition in distribution
    - Swisscom: wholesale and retail
    - Utilities: wholesale
- **Facilitating agreements** between Swisscom and utilities
  - Layer 1 – exclusivity for utilities
  - Investment protection agreement
  - Compensation mechanism
- **Competitive assessment** of partnerships and agreements
  - Reference scenario: Swisscom or EVU set up fibre networks individually (i.e. in many instances one or the other)
  - Impact of agreements in detail

Agenda

Partnerships for fibre deployment - economic background

Facilitating agreements and regulatory issues

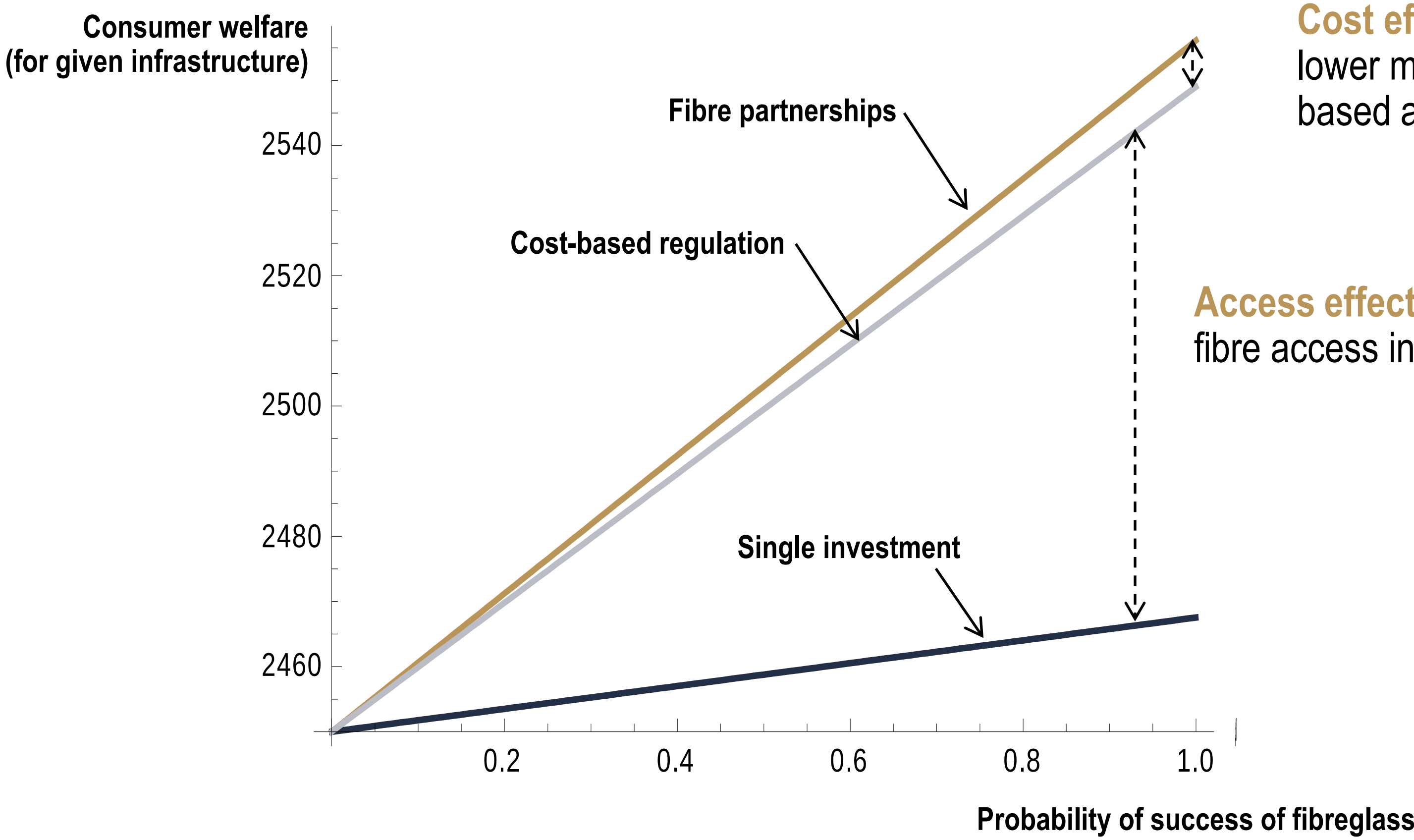
Summary of findings

Preliminary remarks

- Mathematical modelling * of the optimal behaviour of companies under different conditions
- **Stages of the analysis**
  - Product market competition
  - Investment in fibre
  - Dynamics: Consumer welfare considering product market competition and investments
- **General conditions: uncertainty**
  - Success: Consumers have higher willingness to pay for fibre
  - Failure: Consumers do not pay more for fibre than for DSL
- **Regulatory conditions**
  - Fibre partnerships
  - Single investment
  - Cost-based access regulation

* Nitsche, R. und L. Wiethaus (2011), „Access regulation and investment in next generation networks – A ranking of regulatory regimes“, *International Journal of Industrial Organization*, 29, 263-272.

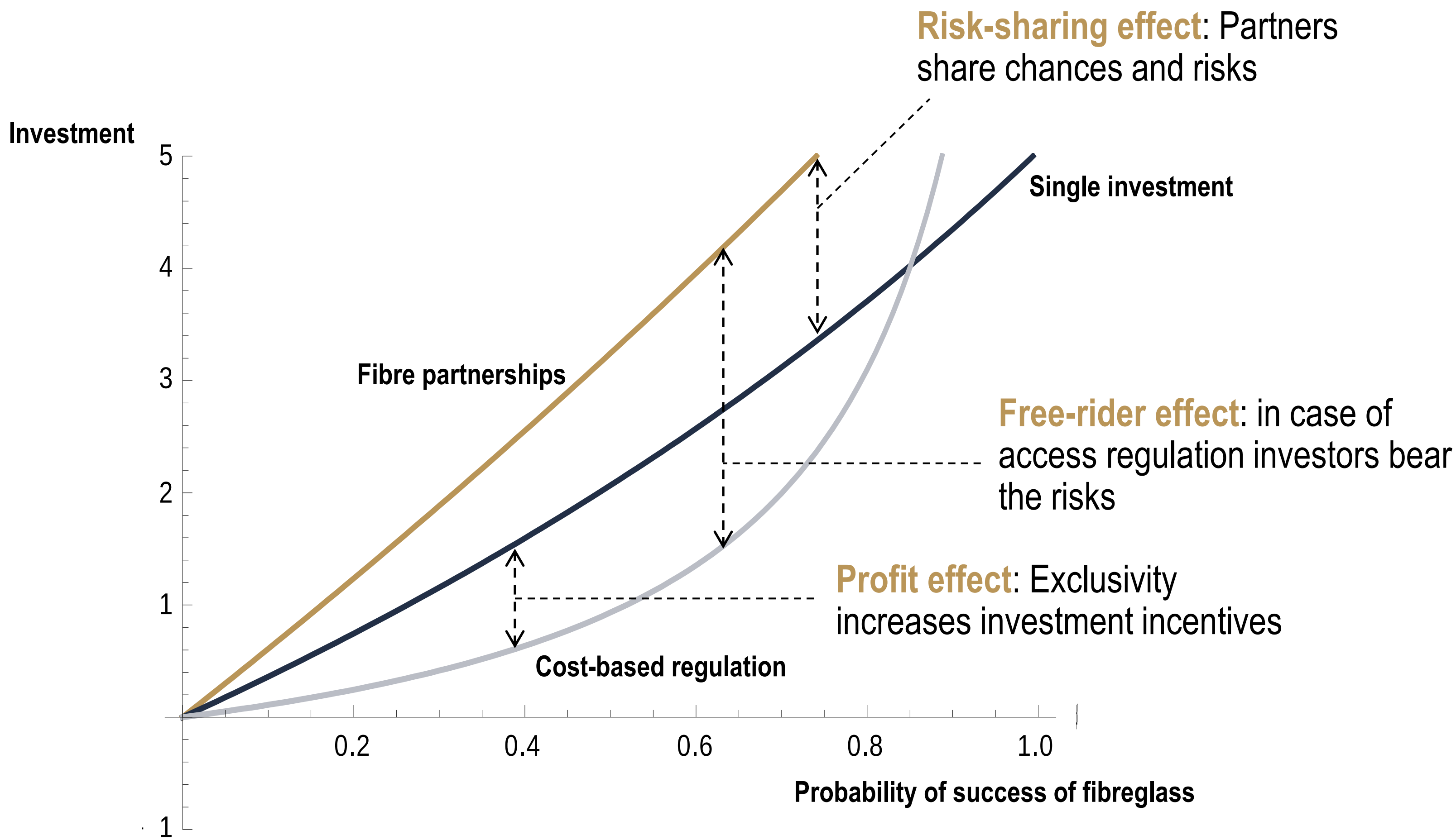
Product market competition



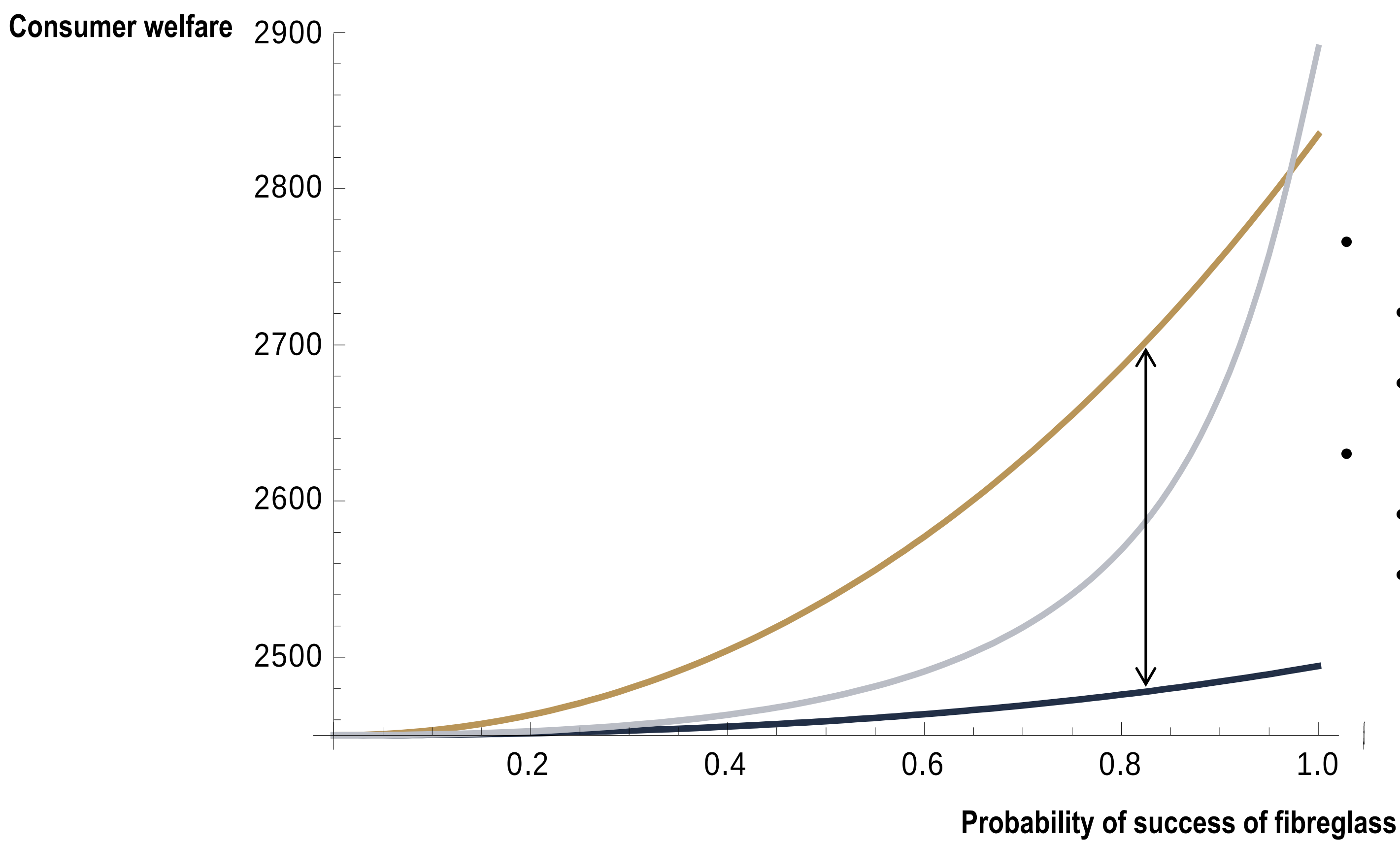
Cost effect: Partnerships lead to lower marginal costs than cost based access regulation

Access effect: More players with fibre access increase competition

Investment incentives



Consumer welfare: partnerships dominate



- High investment incentives
  - Risk-sharing effect
  - No Free-rider problem
- High intensity of competition
  - Access effect
  - Cost effect

Agenda

Theory and practice of partnerships

- **Theory**
  - Symmetric market structure
  - All companies want to participate in investments
  - All companies have access to end customers
  - Risk neutrality
  - By assumption, unproblematic distribution of investment costs
- **Practice**
  - Asymmetric market structure
  - Low number of potential investors
  - Potential investor EVU without end customers
  - Risk aversion
  - Investments costs must be shared

Layer 1 – exclusivity

Investment protection agreement

Compensation mechanism

Layer 1-exclusivity

- **Issue**: EVUs have no end-customer base in the Internet segment but must have a chance for a fair share of sales
- **Facilitating agreement**: Only EVU has the right to offer wholesale products at Layer 1 – level (e.g. LLU)
- **Competitive assessment: anticompetitive collusion on product segments? No:**
  - Single investors have not only layer 1 but an overall exclusivity
  - Layer 1 - exclusivity maintains the competition between Swisscom and EVU
    - Swisscom distributes directly to end customers
    - EVU distributes through other providers
    - But: both companies are competing for the same end customer
    - Swisscom probably prefers direct sales instead of becoming an aggressive layer 1- provider
  - Investment incentives tend to be higher than in case of single investments

Investment protection agreement

- **Issue**: By taking the risks investors should not be worse off than non-investors
- **Facilitating agreement**: No wholesaling below average investment costs
- **Competitive assessment: anticompetitive price fixing? No:**
  - If fibre is successful (as expected)
    - partnership still leads to more competition than a single investment
    - partners have an incentive to price above investment costs
  - Agreement is not expected to be binding
  - If it were binding: Investment protection allows the fibre partnership in the first place
  - Some limitations though, but not sufficiently substantial so as to prefer a single investment in the first place

Compensation mechanism

- **Issue**: The costs of fibre deployment should be split in a fair manner - what if *ex-ante* expectations of market shares don't materialise?

- **Facilitating agreement**: Distribution of investment costs in accordance with the expected usage share (e.g. Swisscom 60%: EVU 40%); subsequent deviations are compensated proportionally through compensatory payments

- **Competitive assessment: anticompetitive market sharing? No:**
  - Compensation mechanism has obviously no effect if shares develop as expected
  - However, marginal cost of gaining new customers increases with each percentage of deviation
  - Extreme example - EVU holds 100%: marginal costs will increase to max. 60% of average investment costs
  - But even in the extreme case, 60% of average investment costs is still less than e.g. regulated wholesale prices
  - Compensatory payments are too low so as to allow fixing of market shares
  - But may increase investment incentives in case of free-riding concerns

Agenda

Effects of fibre partnerships

	Competition	Investment	Consumer welfare
Fibre partnership vs. Single investment	**++** (Market entry effect through co-operation; *no* additional infrastructure competitor to copper)	**o/+** (Profit effect of single investment vs. risk-sharing effect of the fibreglass co-operation)	**++** (Positive effect of product market co-operation dominates)
Fibre partnership ***with*** facilitating agreements vs. Fibre partnerships ***without*** facilitating agreements	**-/o** (Agreements have no material effects on the expected market outcomes; can decrease competition intensity in case of the unlikely event of failure)	**+** (Agreements decrease risk)	**o** (Agreements have no material effects on expected market outcomes; but increase investment incentives and participation)

Main findings

- **Fibre partnerships** may lead to considerably higher consumer welfare than single investments
  - Partnership establishes two independent providers
  - More competition than single investor, even if at different levels (wholesale vs. retail)

- **Facilitating agreements** have likely no adverse effects on consumers
  - EVU with layer 1 – exclusivity, however, Swisscom would likely prefer own retail distribution anyway
  - If investment protection had any effect at all, such an effect would be small
  - The compensation mechanism may increase marginal costs, but does not allow for market sharing
  - Agreements **cushion against risks**, but don't adversely affect the likely market outcome

Thank you!

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