Measuring the Intensity of Competition – Experiences from Austrian Broadband Markets

Anton Schwarz

RTR-GmbH

Overview

- The EU regulatory framework for Telecom Regulation
- The broadband market in Austria
- Analysis of fixed-mobile broadband substitution

The EU regulatory framework for Telecom Regulation

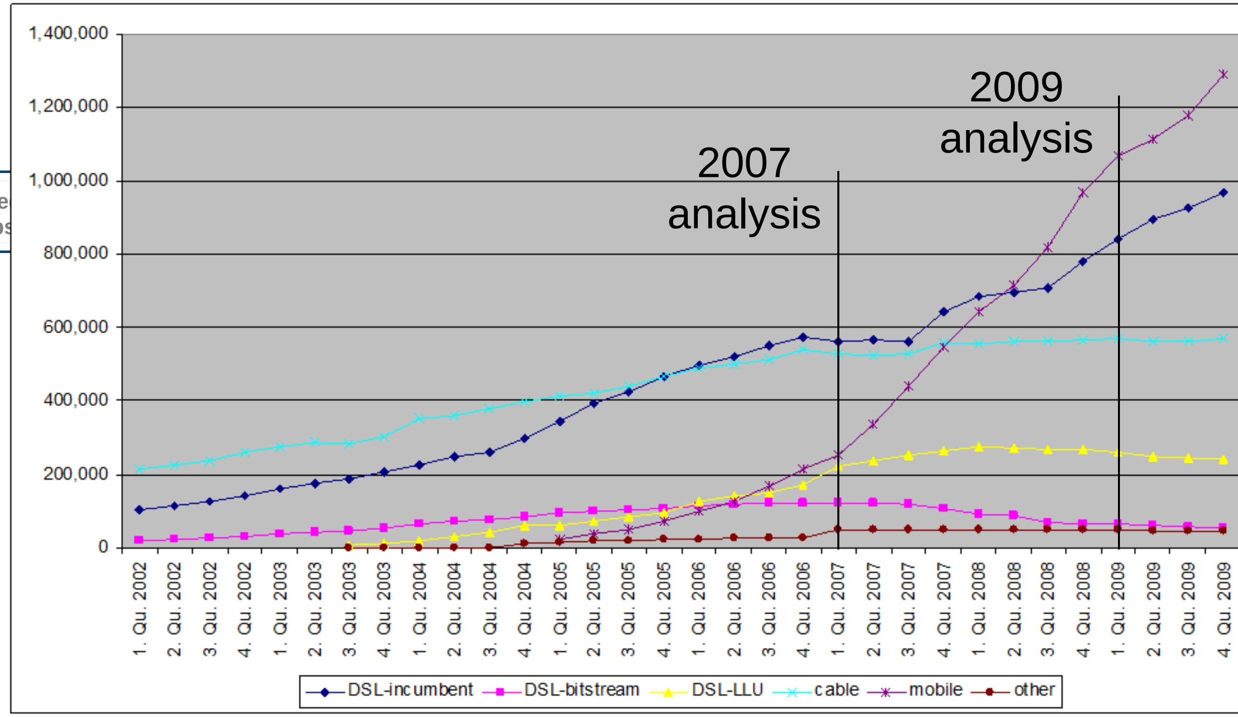
The regulatory framework

- 3 steps approach
  - Market definition -> according to competition law principles
    - Demand- and supply-side substitution, SSNIP-Test
  - Market analysis -> single or joint dominance?
    - Dominance = dominance according to competition law
    - If no dominance -> effective competition
  - If dominance (SMP – significant market power) -> appropriate remedies
    - Possible remedies: Access, non-discrimination, price regulation, transparency, etc.
- EU Harmonisation
  - Market definition -> list of „recommended markets“ -> wholesale broadband access
  - Market analysis -> criteria in SMP-Guidelines -> market shares, entry barriers, CBP, etc.

The broadband market in Austria

Broadband networks in Austria

- DSL
  - Incumbent nation-wide network ~98% pop-coverage
  - Incumbent obliged to offer wholesale access: Unbundling (LLU) and Bitstreaming
    - Unbundling: alternative operators “rent” the local loop
    - Unbundling operators have ~60% pop-coverage
    - Bitstreaming: alternative operator can take over traffic at 9 interconnection points
      - **Wholesale broadband access market**
- Cable networks
  - More than 200 individual networks (largest: UPC), >100 offering broadband services
  - Pop-coverage around 50%
- Mobile broadband
  - 4 mobile operators, offer broadband based on HSPA (theoretically up to 7.2 Mbit/s)
  - 70-95% pop-coverage
- Other: Fixed Wireless Access, Satellite, Power Line, Fibre (-> NGA)



Competitive development

- 2007 analysis
  - Cable and LLU strong in city centres
  - Mobile still low
  - National market, but geographically differentiated remedies
    - No access obligation in MDF-areas with 3 large operators and >2.500 households
    - (UK regulator Ofcom defined geographic markets at the same time)
  - Decision annulled by national court end of 2008
- 2009 analysis
  - Strong growth of mobile broadband in 2007 and 2008
  - ➢ Who is using mobile broadband: business vs. residential
  - ➢ Is mobile broadband a complement or a substitute to fixed broadband?

Analysis of fixed mobile broadband substitution at retail level

Indicators looked at

- Prices and product characteristics
- Consumer survey (3000 households, 1000 businesses)
  - Is mobile broadband used complementary or stand alone?
  - Past switching behaviour
  - Likely response to 10% price increase (“SSNIP-Test”, but stated preferences only)
  - Use of mobile vs. fixed connection
- Price-quantity developments, price reactions

Prices and product characteristics

	DSL/CATV	mobile (HSPA)
price per month	€20-€30 (bundle with fixed voice access)	€4/1GB, €9/3 GB, €10/6 GB, €15/15 GB, €19/19GB
download speed	"up to" 8 Mbit/s is the "standard" product	7,2 Mbit/s maximum, ~1 Mbit/s on average (2008)
volume	flat	see above
mobility	no	yes
availability	>95% of population	~95% of population

- Mobile in general slower, but cheaper and advantage of mobility
- No conclusions on substitution possible
- Look at consumers' behaviour/views

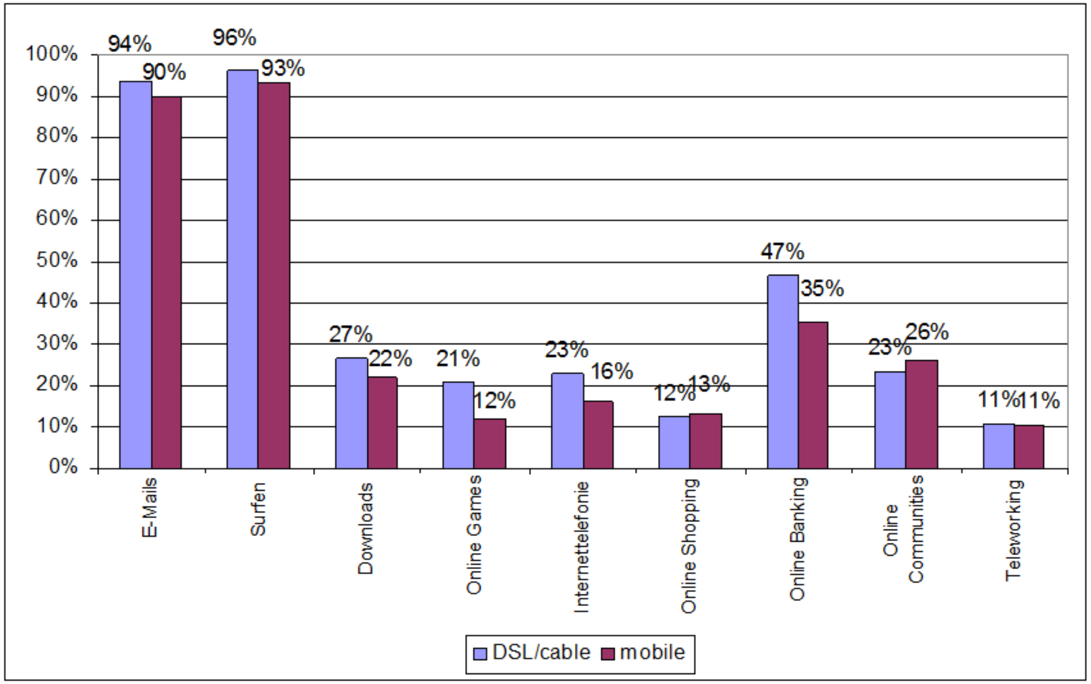
Consumer survey (i)

	residential	business
Share of mobile broadband users	27% (increasing)	15.5%
Share of mobile broadband users having no fixed broadband connection	~75%	~25%
% of users who had switched from fixed to mobile broadband	~10%	very low
Estimated elasticity based on hypothetical monopolist question (critical elasticity: -1.1 to -1.4)	DSL and CATV: -1.5 to -2.5	DSL: -0.7 to -1.8

- Large differences between business and residential users
  - Predominantly stand alone use and likely substitute of residential users
  - Predominantly complementary use of businesses

Consumer survey (ii)

- Applications used via fixed and mobile broadband by residential users



➢ Main applications: E-Mailing and surfing

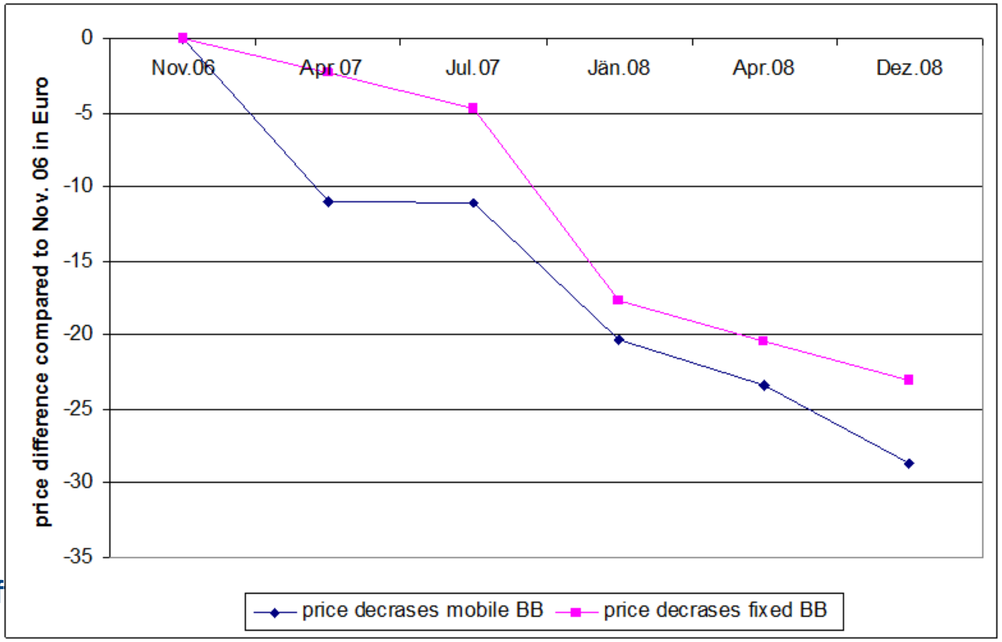
➢ Use of some applications via mobile lower, but still significant

Price reactions

- Q1/07: Mobile broadband prices decreased significantly
- Q2, Q3/07: Growth of DSL- and cable-connections went close to zero
- Q4/07, Q1/08: Price of DSL and cable was reduced significantly (Christmas promotion) -> back to former growth levels

➢ Indication for price reaction and competitive interaction

- Hedonic prices:



Conclusions

- There are two retail markets: residential users and businesses
- Both markets are national in scope
  - Residential: DSL and mobile with de facto national coverage
  - Business: High market share of incumbent even in city centres
- Residential segment comprises DSL, cable and mobile broadband
  - ➢ Several vertically integrated operators
  - ➢ Effective competition
  - ➢ No bitstream regulation needed
- Business segment comprises only DSL
  - ➢ Incumbent operator likely dominant
  - ➢ Regulation likely still needed
  - ➢ "Business wholesale broadband access market" as relevant market

➢ Market definition key to finding/not finding effective competition

Measuring the Intensity of Competition – Experiences from Austrian Broadband Markets

Anton Schwarz

RTR-GmbH