

Wholesale broadband access - Market definition

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The broadband
market in Austria

Retail market
definition

Three criteria test for
retail markets

Wholesale market
definition

Three criteria test for
wholesale market

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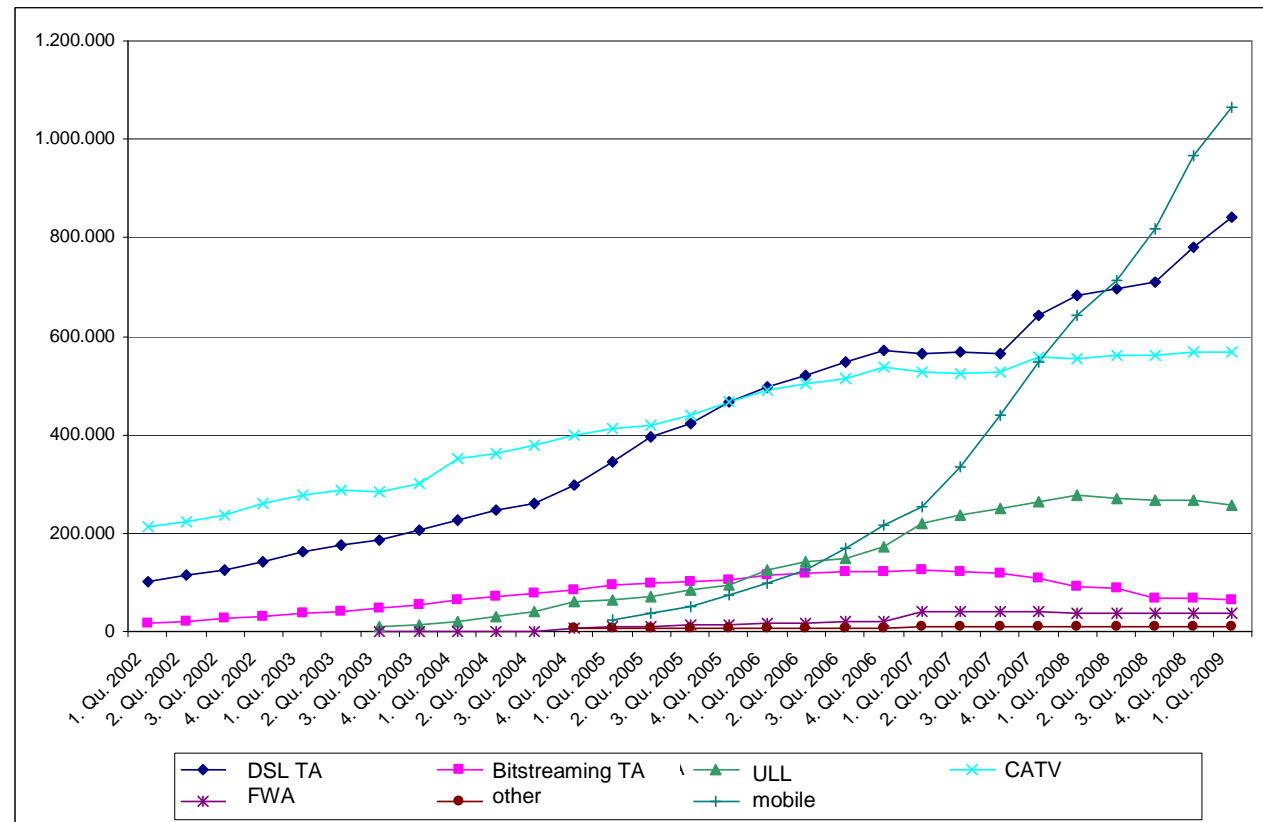
Three criteria test for
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The broadband market in Austria



Past developments

- Strong growth of mobile BB
- Leads to stagnation/decline of DSL/CATV
- Only after significant price decrease, fixed connections are growing again





Future developments

- DSL: TA and others will invest in NGA within the next two years
 - VDSL2 from MDF in 'rural' areas
 - FTTx in densely populated areas
 - Duct access, virtual unbundling as new remedies on LLU market
- CATV: Investment in DOCSIS 3.0 by UPC has already started
 - Bandwidth up to 100 Mbit/s
- Mobile
 - Investment in HSPA+ (up to 28 Mbit/s) has already started
 - 2010/2011: LTE might bring bandwidth >100 Mbit/s



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Retail market definition



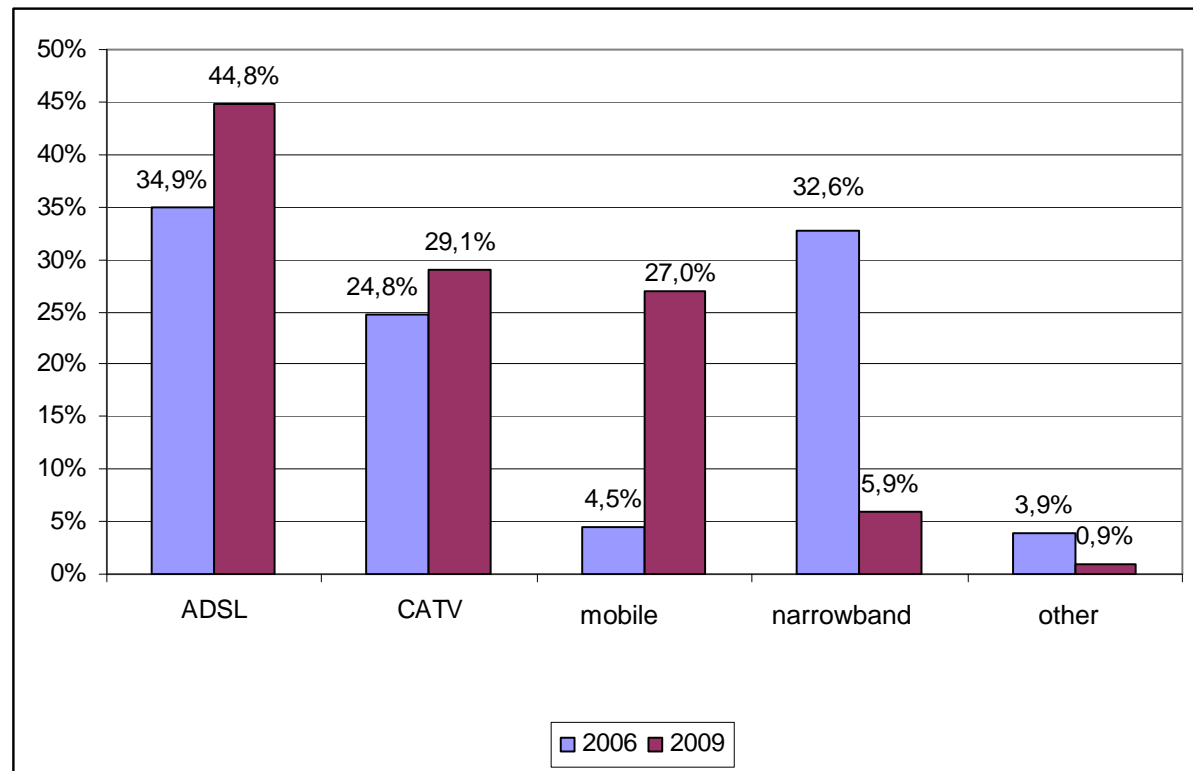
Starting point of market definition

- DSL connections at retail level
- But: Significant differences between residential and business customers:
 - Price differences
 - Different product characteristics
- No sufficient substitution between business and residential products
- Conclusion: Differentiation between business and residential segment



Residential customers – technologies in use

- Evidence from consumer survey (Jan 2009, n=3000)
- High and growing share of households use mobile broadband
- $\frac{3}{4}$ of mobile connections are used “mobile only”, only $\frac{1}{4}$ complementary to a fixed connection





Residential customers - substitution

- HM-Test question (“What would you do if the price for DSL-connections increased by 10% ...?”)
- CATV is substitute for DSL
- Mobile is substitute for fixed (DSL/CATV)
- Also past switching behaviour shows that many consumers switched from DSL/CATV/narrowband to mobile
- >70% of users which switched from fixed to mobile broadband are satisfied with their connection.

➤ Residential market at retail level includes DSL, CATV and mobile.



Residential customers – geography

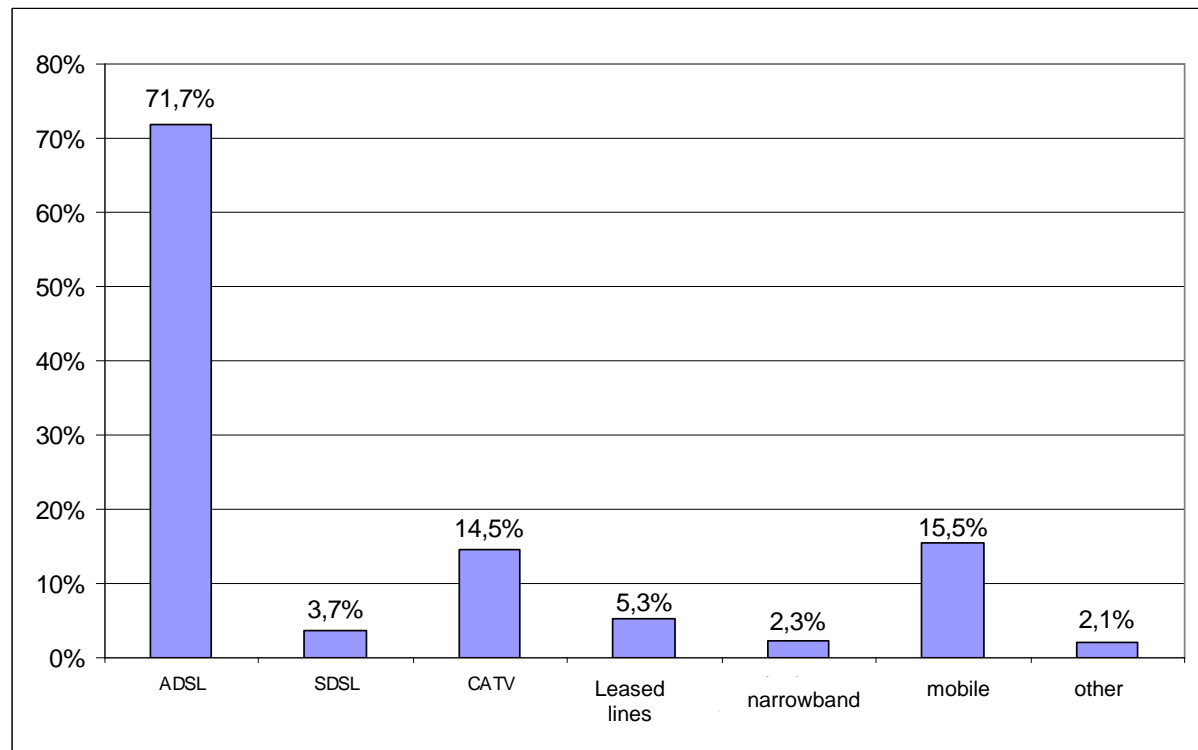
- Mobile has high coverage (1 operator >90%)
 - (almost) nationwide competitive pressure on Telekom Austria
- Geographic price differences and price differences between Telekom Austria and CATV/ULL operators (which operate mainly in densely populated areas) disappeared
- No sufficient differences in competitive conditions to define local markets

➤ Residential Market is national



Business customers – technologies in use

- Evidence from consumer survey (Jan 2009, n=1000)
- DSL dominates ($\frac{3}{4}$), CATV and mobile much lower than for residential users
- Only $\frac{1}{4}$ of mobile connections are used “mobile only”, $\frac{3}{4}$ complementary to a fixed connection





Business customers - substitution

- HM-Test question (“What would you do if the price for DSL-connections increased by 10% ...?”)
- CATV and mobile not good enough substitutes

➤ Business market at retail level includes only DSL (ADSL and SDSL).



Business customers – geography

- On a DSL-only business market, Telekom Austria's market share is also high in densely populated areas.
- No sufficient differences in competitive conditions to define local markets

➤ Business Market is national



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Three criteria test

- Residential users
 - Market includes DSL, CATV and mobile
 - 2nd criterion (no tendency towards effective competition) not fulfilled.
 - Infrastructure-based competition: DSL, CATV, mobile, LLU
- Business users
 - Market includes only DSL
 - With wholesale regulation: 3rd criterion (insufficiency of competition law) not fulfilled

➤ No relevant market at the retail level



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Wholesale market definition



Wholesale market definition

- Starting point is business retail market
 - No need for bitstream regulation with regard to the residential retail market
- Internally and externally provided DSL-bitstream access for business customers included in the wholesale market
- Since providers usually do not differentiate between business and residential at the wholesale level -> all externally provided Bitstream access is included.



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Three criteria test for wholesale market

- Entry barriers
 - High entry barriers due to economies of scale, sunk costs and reputation effects
 - First criterion fulfilled
 - Tendency towards effective competition
 - Market share of Telekom Austria: ~75%, slightly decreasing
 - external provision decreases stronger than internal provision increases
 - LLU (60-65% coverage) as only parallel infrastructure
 - Second criterion fulfilled
 - Sufficiency of competition law
 - Access regulation likely to be necessary -> extensive compliance requirements, frequent and/or timely intervention likely
 - Third criterion fulfilled
- The wholesale broadband access market for business customers is a relevant market in the sense of the Recommendation



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Thank you for your attention!!!