Investitionen und Risiko im NGA-Ausbau

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RTR –GmbH

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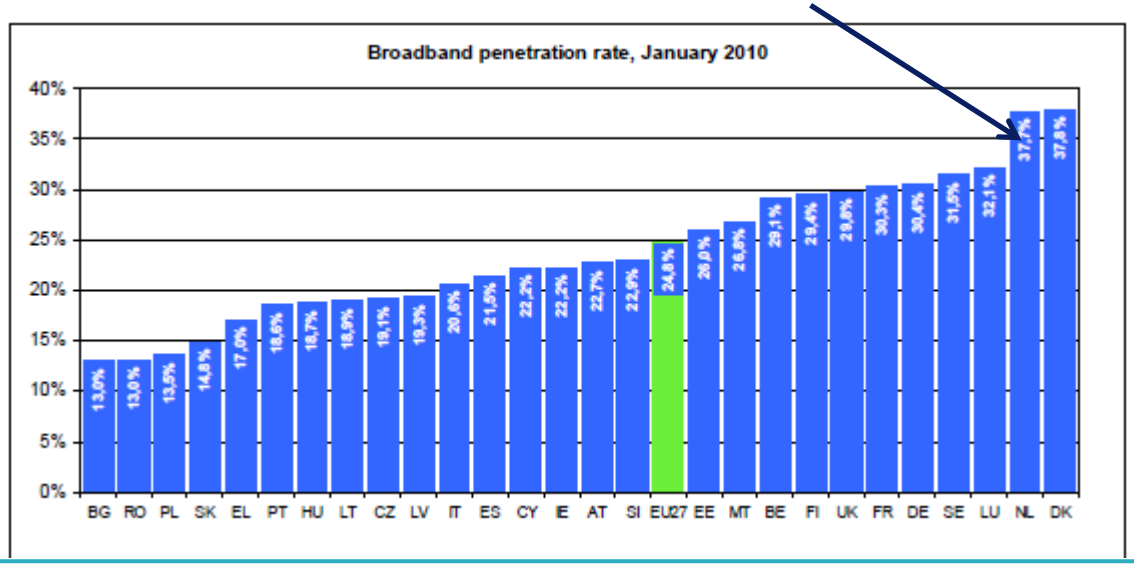
Broadband penetration in The Netherlands

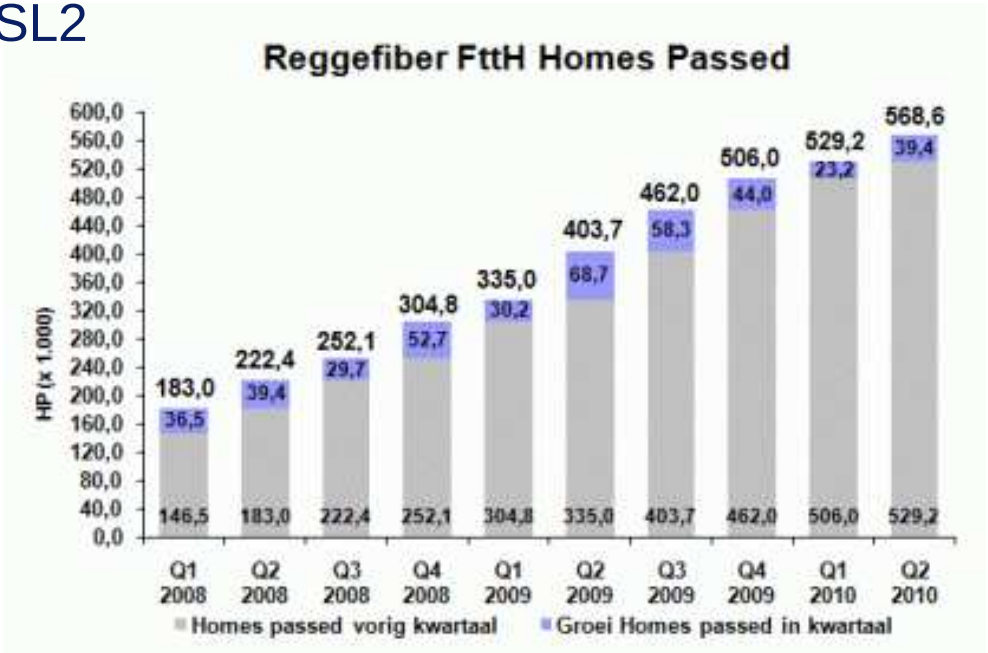
- +/- 16 million inhabitants
- +/- 6 million broadband subscribers:
  - -80% of households
  - -38% of inhabitants



Source: EC, 15th implementation report

Broadband coverage in The Netherlands

- Nationwide DSL coverage
  - 60% coverage of ADSL2+
  - 10-20% coverage of VDSL2
- Nationwide Cable coverage
  - >95% Docsis 3.0
- Regional FttH coverage
  - 570k Homes Passed (5-10% households)
  - Non Reggefiber ~ 10k



Competition in The Netherlands

- Infrastructure based competition between cable operators and DSL operators
  - Cable +/- 40%, Incumbent +/- 45%, Other DSL operators (LLU) +/- 15%

- Competition between DSL and cable: advantage cable with (triple play) TV position and DOCSIS 3.0 (120 Mbit/s broadband offer)

- Cable competition forces KPN to roll out a NGA network based on mixed strategy
  - FttH (via joint venture with Reggefiber which provides passive access)
  - VDSL from the central office and from the street cabinet (FttC)

The KPN – Reggefiber JV

- Concentration of FttH activities of KPN and Reggefiber.
- New JV to invest in passive fibre infrastructure and to supply ODF access to KPN and other operators
- Creation of JV to be approved as merger by NMa and relevant fact in OPTA market analysis unbundled access
- NMa/OPTA concluded that the JV would likely have market power on ODF access (part of unbundling market)
  - FttH technically superior infra
  - Scale economies very significant
  - First mover advantages
- NMa/OPTA identified input foreclosure as potential competition concern → Need to guarantee access at fair and non discriminatory conditions and prices.
- NMa Merger remedies ≈ OPTA access regulation

Regulatory challenges faced by OPTA

- Roll-out of FttH-access network requires major new investments

- KPN and Reggefiber concerned about (regulatory) uncertainty:
  - FttH business case has risks in itself (eg. penetration level, demand uncertainty)
  - (Possible) future regulatory intervention would create asymmetric regulatory risk
  - This would negatively affect investment incentives of the JV

- Access seekers were worried about regulatory protection (risk of no access and/or too high access rates or even regulatory holidays)

- How to balance stimulating investment and fostering competition?

- How to reduce regulatory uncertainty for investors and access seekers?

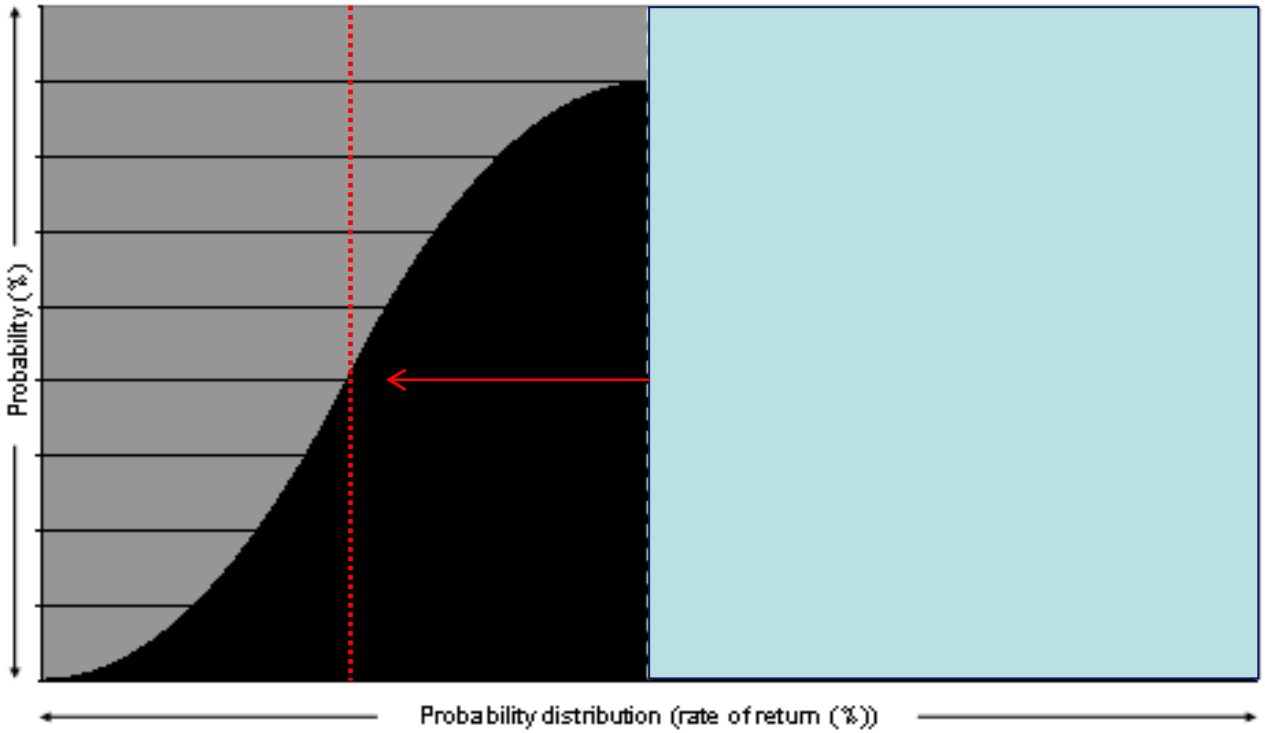


Figure 1: normal distribution of rate of return outcomes[7]

Approach on pricing fibre access

- Minimize ‘external’ risks for the business case FttH
  - Give long term certainty on access prices for FttH as well as on pricing principles → policy guidelines
  - Limiting asymmetrical regulatory risks → allow (within boundaries) the optimistic scenario of the business case

- Allow internal risk reducing measures in the pricing scheme
  - one-time investment-contribution in line-tariff
  - pricing that stimulates penetration
    - E.g. volume discount schemes
    - E.g. indexed tariffs (that allows for lower entrance tariffs)
  - Different CAPEX-types (and prices) based on different costs

- Determine access price (cap) based on realistic business case and parameters,
  - that allows infrabased competition, comparable with ULL-business model,
  - with reasonable rate of return for access provider.

- In addition to a wholesale price cap the wholesale prices are subject to non-discrimination, which includes a margin-squeeze test.

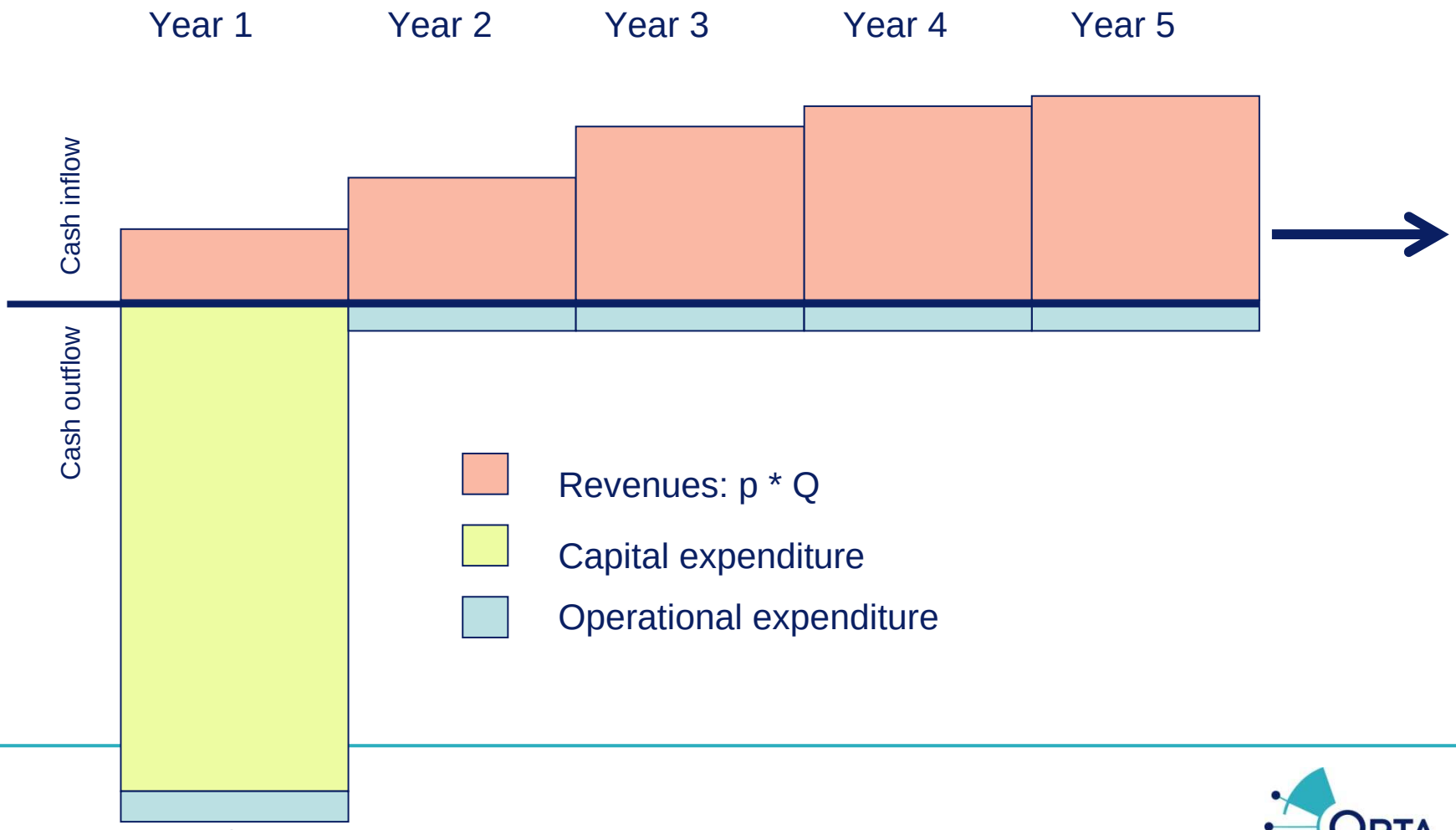
Two main price measures

- Setting a wholesale price cap
  - At the start (t0) of the investment
  - Based on actual CAPEX (5 area types)
  - Discounted Cash Flow Model
  - Yearly indexed with actual CPI

- Periodically Rate of return check
  - Every 3 years (regulatory period)
  - Check actual IRR against fiber specific WACC + 3,5% premium for asymmetrical regulatory risks

- If the actual IRR is higher than fiber specific WACC + 3,5% then the price-cap is adjusted downwards.

Discounted cash flow model

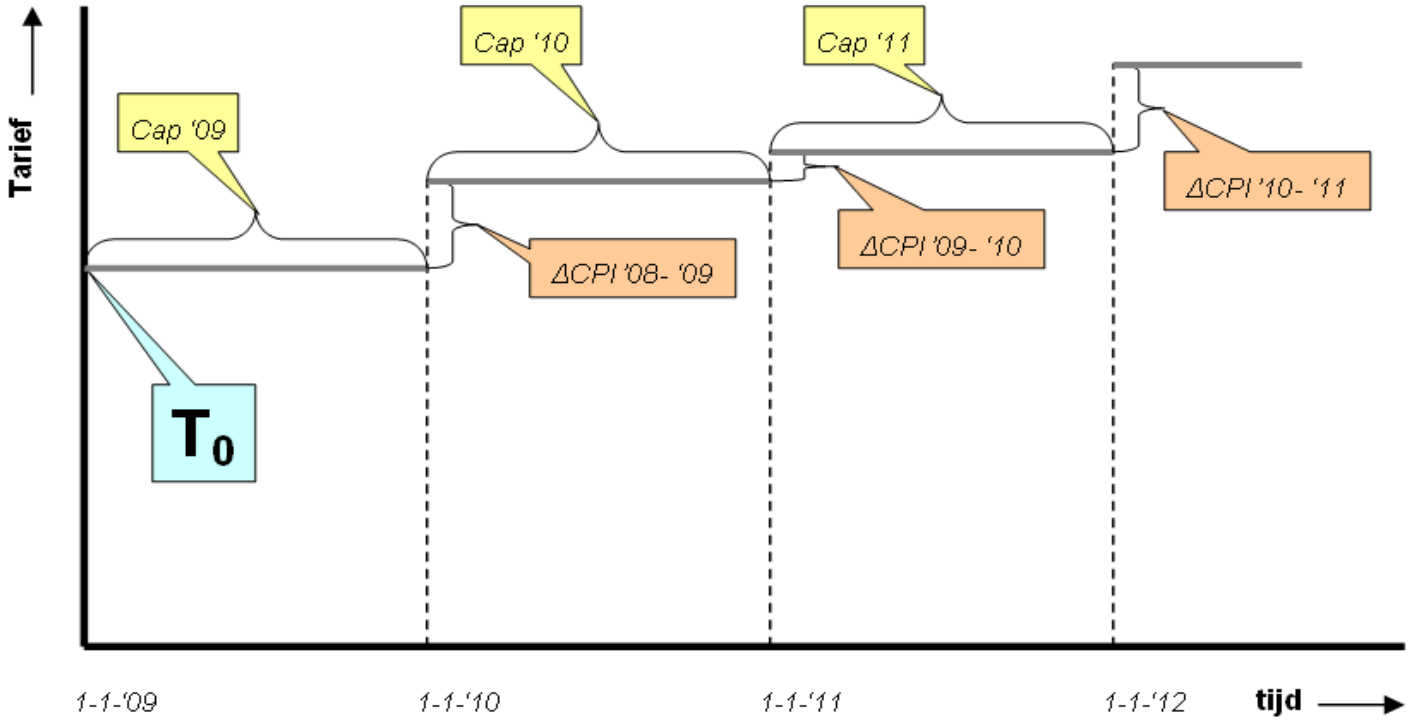


Key parameters in price cap calculation

- Actual CAPEX per project build (called area)
- Payback period: 25 years
- Penetration level: 60% (after 2 years)
- Expected CPI: 1,5% per year
- IRR (after tax): 7 – 10%*
- OPEX per line: € 12 – 18* (per year)
- Investment contribution: € 80 per line

As a result (for CAPEX-category III (875 – 925 Euro/line) :
€ 16,00 per month (with max discounts: €12,80)

Price cap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1-1-'10
1-1-'11
1-1-'12
tijd

Periodic rate of return check (1)

- Actual developments will divert from initial scenario (higher/lower) penetration, CAPEX, OPEX, Q, inflation etc.
- Realisation positive scenario: Actual > Expected returns
- Trade off: Preventing excessive tariffs ↔ Allowing compensation for asymmetric regulatory risk
- Compensation for asymmetric risk calculated on the basis of penetration ratios 40% (pessimistic) and 80% (optimistic) → 3,5%
- Periodic review of realised returns (every three years) :
  - Comparison Actual IRR and fiber specific WACC + 3,5% premium for asymmetric risk
  - If IRR < WACC + 3,5% → No intervention
  - If IRR > WACC + 3,5% → Tariffs excessive → New price cap ↓

Questions?

Thank you for your attention!

For more information see: OPTA, Regulatory Policy Note 06, Regulation, risk and investment incentives, May 2010
http://www.opta.nl/en/news/all-publications/publication/?id=3201