

Lessons from the broadband ladder: how can this be applied to NGA?

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About ECTA

- **European Competitive Telecommunication Association represents some 150 operators across Europe**
- **Aims to drive forward liberalisation and competition across the telecoms sector**
- **Our operator members are diverse – pan-European & national, consumer & business - most have made substantial investments in infrastructure**

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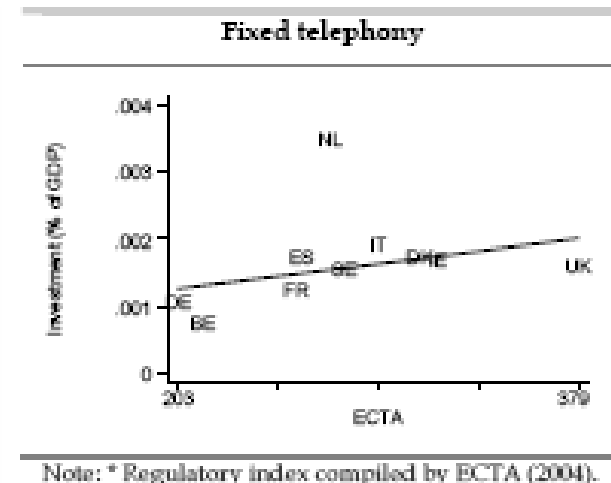
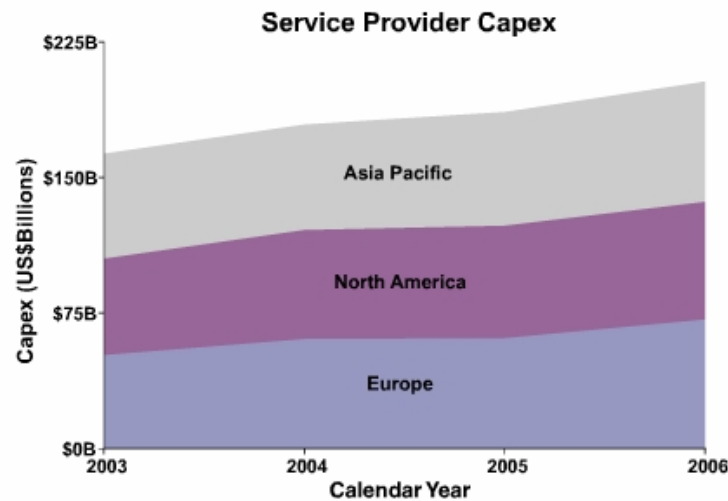
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A history of investment...



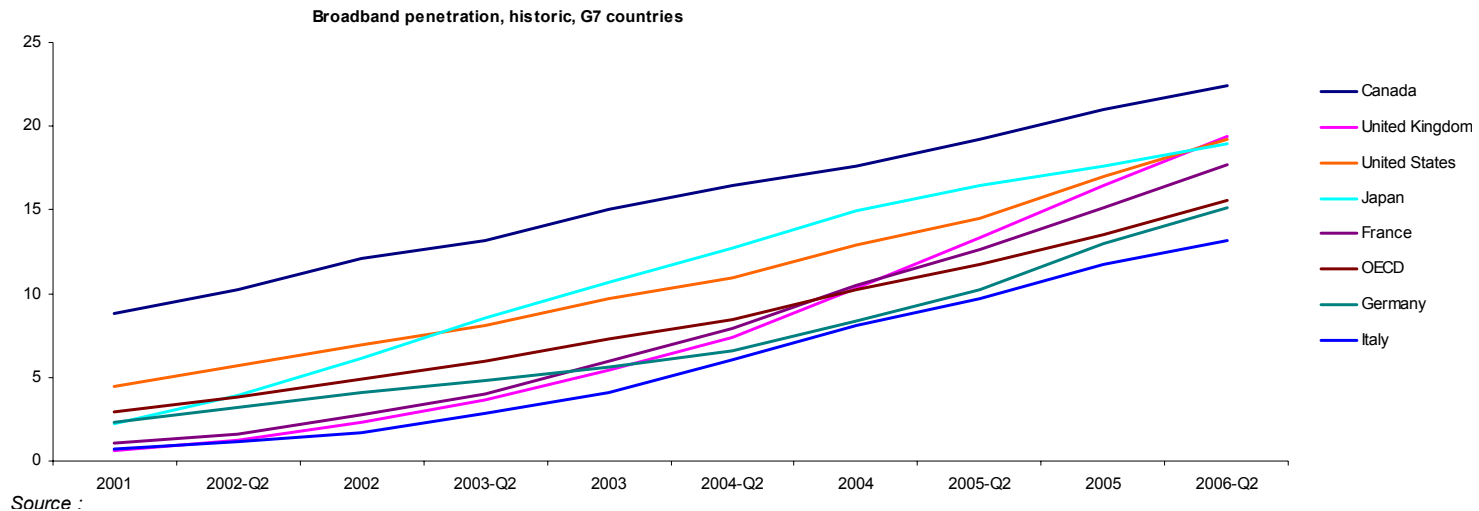
Source: Infonetics Research, London economics

- Investment increased after OECD liberalisation
- Investment growth in Europe strong – 9% 2005-06
- Higher investment in better regulated countries (OECD, ECTA, LE)

A history of investment...

- Competition tends to drive investment overall – by incumbents and competitors
- Incumbents invest most in absolute terms and have **maintained or increased investment** recently
- Competitors have spent €blns climbing the ladder of investment (new investment + marketing) and have typically spent a **greater % revenues** (LE 3x more than incumbents)
- Competitive operators have been primary innovation drivers **where economics permits** – the commercial Internet, triple play, NGN backbones
- Markets require certainty and a fair return on capital. Incumbent performance has been steady after the economic recovery. **Competitors returns limited**

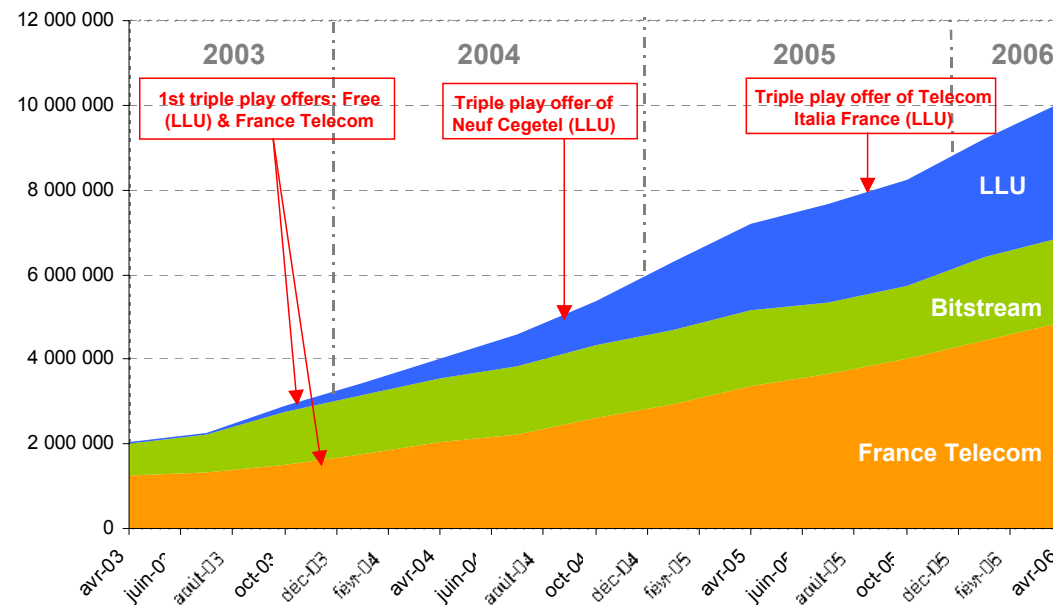
From narrowband to broadband



- Broadband emerged late '90s. Upgrades to exchanges, core networks
- LLU countries (allowing competitive upgrades) took early lead
- Elsewhere, delays in mandating access – suggested 'new', 'emerging'. Growth lagged. Incumbent market share high
- Action was needed to spur growth – incumbents maintain >80% broadband access lines in Europe. Pressure from USTR

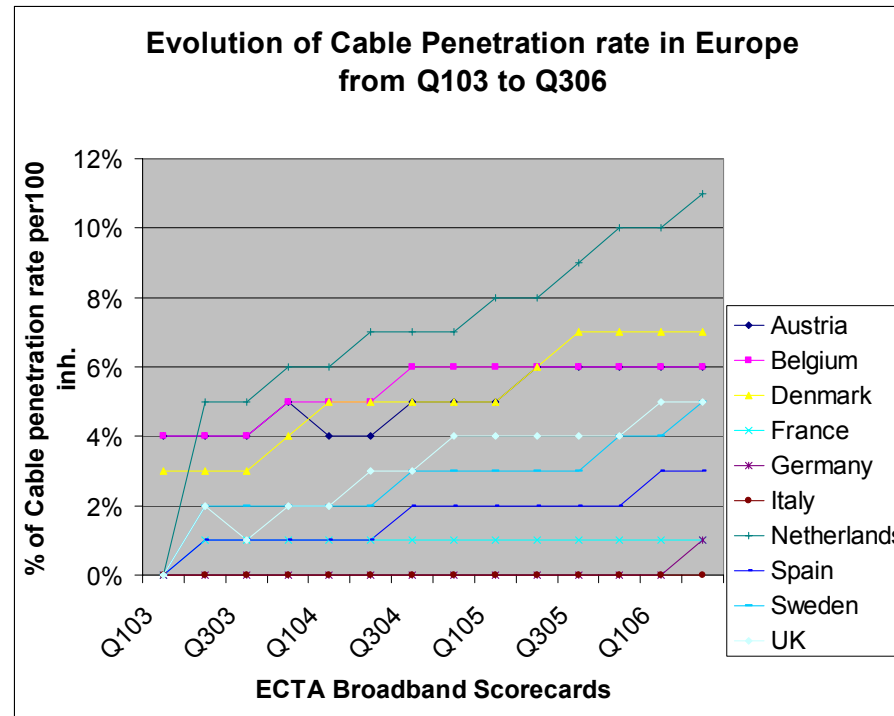
Case study: France

Retail DSL market



- French market stagnated until action taken by regulator
- LLU spurred growth & innovation, bitstream rural choice
- Fixed investment increased 17% in 2005, 40% from competitors

Other technologies not undermined

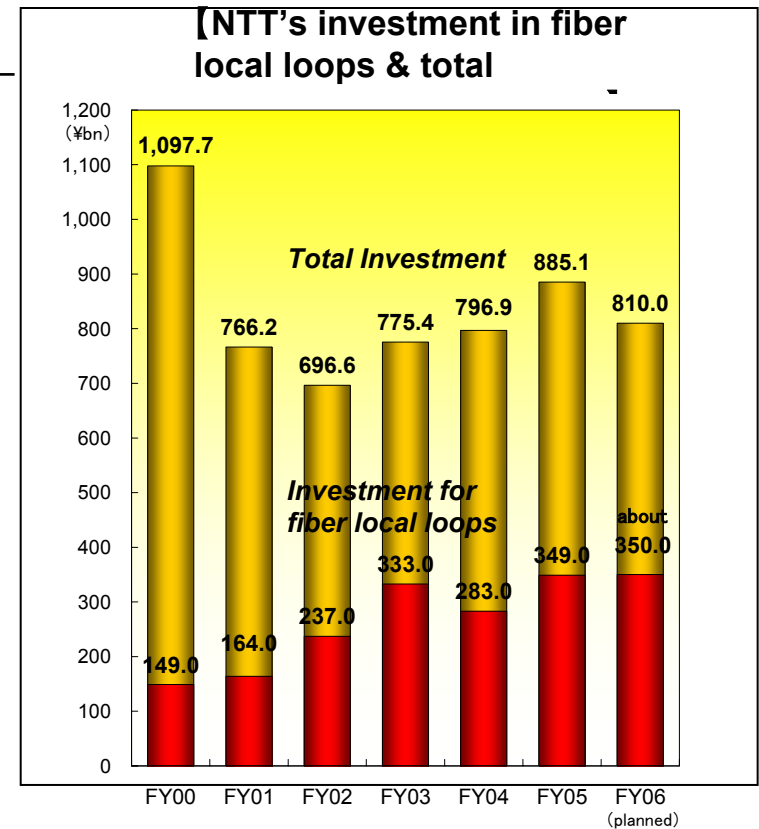
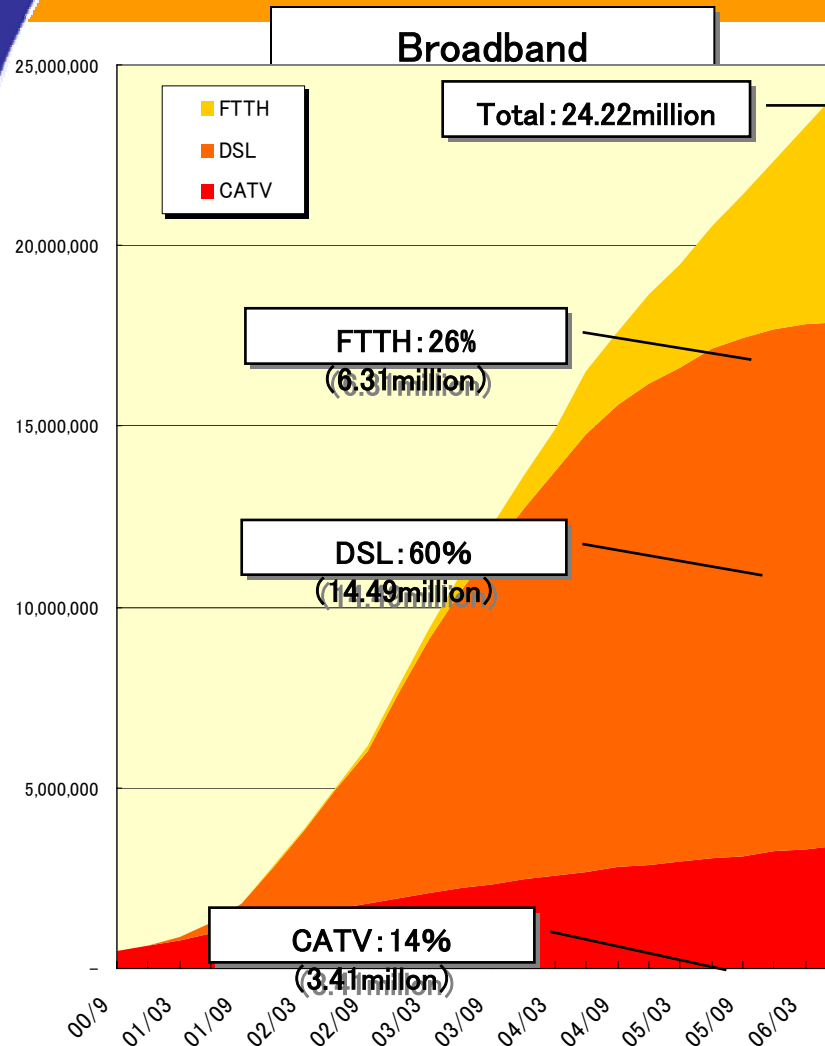


- Cable penetration increased alongside LLU – mutual competitive stimulus (OPTA: Is 2 enough?). History seems more influential factor than regulation
- Despite much promise, wireless has tended towards being complementary not substitute technology (3% lines Q3 2006)

From broadband to broaderband

- Incumbents NGN and NGA investment often stimulated by competitive pressure:
 - Netherlands: Competitive pressure from cable and unbundling. KPN announced all-IP upgrade (access and core) – additional capex cost now < €0.9bln
 - Germany: Unbundling pressure in cities. DT announced €3bln vDSL urban investment complemented by ADSL2+
 - UK: Relatively well regulated and competitive market. €10b core network upgrade announced by BT
 - France: Free investing €1bln in fibre through sewer system on open access basis (building on broadband competition). FT response – 200,000 customers targeted by end 2008
 - US: Telcos investing to provide triple play networks to compete with Cable Cos having >50% market share
 - Japan: Open access regime. Fibre penetration highest in world. Substantial and continued investment

Case study: Japan



- NTT retains nearly 80% underlying fibre access lines
- Copper and fibre substitutes
- Unbundled fibre since 2001

A parallel universe: NZ

- Market liberalised late 80s – ex post approach
- Limited ex ante Framework introduced 2001
- Local loop unbundling rejected by Commerce Commission 2003. Upheld by Govt 2004
- Economic Ministry report 2004 - cost of communications basket most expensive in OECD
- May 2006 Government required LLU
- Functional separation approved Dec 2006
- In Europe: ‘Effective’ regulatory holidays (LLU unused) in Ireland, UK (until recently) – coincided with low broadband penetration, no access upgrades

What if... we have regulatory holidays?

- Competitors have invested on the basis that economic bottlenecks will be addressed
- Economic bottlenecks occur where replication not efficient/feasible (can be medium or long term)
- If rules changed for access upgrades:
 - Substantial competitive investments made in recent years risk being stranded, and investment confidence destroyed
 - The monopoly slowly eroded since 1998 could be reintroduced with longer term damage to investment trends
- The choice and variety available for consumers and businesses will reduce, take-up will stall
- Policy-makers will have delivered 'deregulation', but will consumers and businesses thank them?

An alternative model

- Provide fair and level playing field for **all** investors with clear rules up front
 - For incumbents: Regulation only to address SMP and prevent leverage. Return should reflect risk
 - For entrants: Access to address market failure (on technologically neutral basis) and true non-discrimination
- Examine possibility of functional separation – investment incentives secured through return and ‘customer demand’ (from all operators)
- Europe’s regulatory Framework is based on addressing competitive failure – built in sunset clause

What can we learn for the future?

- **Monopolies do not drive investment** – competitive stimulus is needed
- **Efficient investment is key**, not investment for its own sake
- Competition requires a **fair return for all**: incumbents, and – critically – competitors
- **Action is needed** to enable competition. Inaction tends to result in stagnation and foreclosure
- The broadband investment ladder does not prevent further investment eg cable, wireless where economic
- Given similar history, **fibre economics unlikely to be inherently different from copper**. 80% incumbent share of lines for copper-based broadband EU, 80% for fibre-based broadband Japan
- Need to **enable competition from outset** – real non-discrimination, functional separation, fair return reflecting risk, customer-driven demand to maintain incentives to invest
- **Learn from the past!**

Thank you

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