NEW ZEALAND INSTITUTE FOR THE STUDY OF COMPETITION AND REGULATION INC.

GOVERNMENT INVESTMENT AND BROADBAND MARKET EVOLUTION IN THE ANTIPODES

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MOTIVATION

Australia, NZ leading the (non-Asian) OECD in government investment in nationwide FTTP networks

- despite recent adherence to OECD access regulation orthodoxy

Why?

What is effect on

- competition
- regulatory policy?

HISTORY

New Zealand

- world leader in telecommunications deregulation (1987), corporatisation (Telecom NZ 1987) and privatisation (1990)
- ‘light-handed’ regulation based on Commerce Act and contractual undertakings (1990-2001)
- re-regulation beginning 2001
  - interconnection, resale (regulated 2001/effective from 2002)
  - bitstream unbundling (2004/2005)
  - local loop unbundling (2006/2008)
  - functional separation (2007/2008)

Ethos – initial pursuit of efficiency, giving way to pursuit of a more competitive market and ‘best-practice’ regulation

HISTORY

Australia

- Telstra corporatisation 1988
- three-tranche privatisation (1997-2006)
- industry-specific regulation
  - AUSTEL (1988-97); ACCC & ACA (post 1997)
  - access regulation 1997
  - local loop unbundling 1999
  - accounting separation of Telstra

Ethos: classic OECD regulation – pursuit of competition paramount

PHILOSOPHICAL DIMENSIONS

Strong egalitarian principles

- rural connectivity a strategic imperative
- price equalisation
  - rural vs urban
  - unmetered local calling (but per-call charge in Australia)

Government financing historically targeted rural equality

- Project Probe, Broadband Challenge Fund (NZ)
- funds reserved from Telstra sales (Australia):Networking the Nation (A$250 million1997); Social Bonus package (A$1 billion1999)

2007-8 ‘SEA CHANGE’

Australia

- impasse between Telstra, Government re ‘cabinetisation’ investment
- FTTN becomes a Labour Party 2007 election promise
  - ‘nation-building’
- tenders sought 2008 – none met specifications
- 7 April 2009 Government announces it will establish NBN Co to build FTTH network
  - cost up to A$43 billion
  - serving between 90% and 93% of Australian population
  - terms agreed to A$9 billion ‘buyout’ of Telstra assets (Feb 2011)
  - A$800 million deal with Optus to migrate HFC customers to NBN Co (June 2011)

2007-8 'SEA CHANGE'

New Zealand

- 2007 - Government and Telecom enter undertakings for FTTN network offering 20+Mbps broadband to all communities with more than 500 lines by end of 2011
- 2008 election National Party promises NZ$1.5 billion for nationwide FTTH network to be constructed under PPPs
  - up to 33 regional firms (UFBCos) covering 75% of population
  - enabling a 'step-change in economic performance'
  - making NZ firms competitive with their overseas rivals
- tender process 2010
  - four successful bidders – Telecom's network arm (Chorus) – 70% of regions, balance to 3 regional electricity lines, municipal companies

COMMON ELEMENTS

Fibre companies must be structurally separate from retail operations

- Telstra, Telecom must 'de-merge'
- regulation of copper networks will remain during fibre rollout

Political imperatives trump prudential policy examination

- nationwide network build (even though real infrastructure competition exists in many localities)
- no CBA
- no competition policy assessment
- no 'state aid' prohibitions or protections/compensation for
  - unbundling entrants (both countries)
  - infrastructure investors (NZ)

COMPETITION POLICY CHALLENGES

Regulatory policy orthodoxy

- objective is infrastructure competition
- access regulation/ladder of investment is path to infrastructure competition
- structural separation militates against nonprice discrimination
  - but problematic if infrastructure competition already exists

Fibre NGNs

- fibre is ‘frontier’ broadband technology (copper, HFC ‘legacy’)
- may become dominant in the future (GPT dominance)
- but in the present, is government investment to
  - hasten infrastructure competition?
  - hasten fibre’s acquisition of dominance?

AUSTRALIAN POSITION

Unequivocal – ‘fibre is a nationwide natural monopoly’

One fixed line network

- fibre directly replaces copper
- subsidised network effectively eliminates competitive network investment
- monopoly ameliorated by structural separation, regulated access to Layer 1 & 2 products

Rapid substitution assured

- copper ripped up when fibre laid

But major risks from wireless competition

- Telstra has $9 billion ‘war chest’ and no fixed network to spend it on

NEW ZEALAND POSITION

????????

Investment to accelerate infrastructure competition?

- contracts to municipal, lines companies in 30% of market
- but one UFB Co is in Christchurch, which has infrastructure competition already (DocSIS 3.0 HFC, ADSL2+)
- and contract for Auckland (half the country by customers) was let to Chorus (copper line operator, no residential infrastructure competition)

Investment to accelerate fibre's acquisition of dominance?

- access regulation on copper to remain nationwide
  - low copper prices increase competitiveness, delay substitution
- structural separation inhibits rapid, co-ordinated substitution
  - exacerbated by regulatory exclusions

NZ REGULATION

Telecommunications Commissioner sets copper access prices

- legislated obligation to be cost-based

But fibre prices set by undertakings between government and UFBCos

- not cost-based, due to government subsidy
  - presumably set so as to achieve the desired level of private sector investment from PPP partner(s) given uptake assumptions
- Commissioner enforces undertakings, but cannot set fibre prices

Fibre uptake determined by retail prices

- but wholesale price arbitrage between networks outside of regulator’s control
  - notably, cannot act against ‘anticompetitive’ subsidised fibre or increase copper prices above cost to limit the time that two networks operate together inefficiently

STRUCTURAL SEPARATION

End consumer substitution to fibre ultimately controlled by retailers

- some of whom are vertically integrated infrastructure competitors (HFC, wireless)
- incentives to prefer fibre sales over copper or own networks (incl. unbundling investments) governed by regulated price arbitrage
  - but no single ‘alternative network price’ against which to set fibre wholesale price
  - ipso facto the ‘regulated fibre price will be (inefficiently) wrong regardless (as one price can’t suit all competitors)

STRUCTURAL SEPARATION (ii)

Network innovation inhibited by ‘equality of inputs obligations’

- fibre operator cannot ‘customise’ offers with individual retailers to accelerate substitution
  - as per mobile networks (e.g. handset bundling to induce 3G)

Exacerbated if different firm owns copper and fibre networks

- copper operator would welcome lower (regulated) prices to prolong network life/extend revenues on that network
- unbundling entrants may co-operate to prolong own investment life (recover own sunk investments)

Delays time at which fibre scale economies achieved

- inefficient if fibre truly a natural monopoly

PPP RISKS IN NZ

‘Capital recycling’ model

- govt pays initial build
- PPP partner connects residence, buys share from government
- further build-out funded by capital recycling from share purchase

Government assumes initial risk

But PPP partner takes on risk when connections made

- connections made not necessarily equivalent to services sold by retailer
- consumer not ‘locked in’ to ongoing fibre purchase
  - better price on copper => switch back?
  - what if future LTE offer bests fibre?
  - critical for low-volume consumers

WHITHER COMPETITION POLICY IN NZ?

Infrastructure competition?

Fibre is a natural monopoly?

- infrastructure competition will never emerge

Hard to infer any clear policy direction

- none has been articulated

But what about competition in the BROADBAND MARKET?

- customer dimension very important
- not all customers created with equal demands

And is competition a means or an end?

WHITHER REGULATION POLICY IN NZ?

Focus on wholesale market

Copper regulation policy

- open access, structural separation, overseen by Telecommunications Commissioner

Mobile regulation policy

- regulated interconnection, mobile termination and maybe roaming

Fibre regulation policy

- open access, structural separation regulated by enforceable contractual undertakings
- effective ‘regulatory holiday’ until 2019

But where is BROADBAND REGULATION POLICY?

TENDS TOWARDS CONCLUSIONS

Australian network will achieve higher fibre uptake initially than NZ

- but at very high cost per connection (due to Telstra, Optus buyout)
- Infrastructure competition inhibited even when feasible
- and real risk that targets will not be reached due to wireless competition

NZ uptake will differ between regions depending on ownership of fibre network

- fibre networks will struggle to get rapid substitution, especially where copper and fibre not owned by same operator
- dual networks will persist even when economically inefficient
- network buildout likely slower than anticipated
- Govt funds committed for longer or more money needed

IS THE ANTIPODEAN FUNDING MODEL USEFUL FOR EUROPE?

You be the judge

THANK YOU

Questions and discussion

REFERENCES (ISCR WEBSITE)

Evans & Hahn

- Regulating Dynamic Markets
  - http://www.iscr.org.nz/f574,16477/16477_Regulating_dynamic_markets_510_v11_May_28_2010.pdf

Heatley & Howell

- Price Discrimination and Structural Separation
  - http://www.iscr.org.nz/f555,17842/17842_Heatley_Price_Discrimination_.pdf
- Regulatory Implications of Structural Separation
  - http://www.iscr.org.nz/f607,17391/17391_Heatley_Howell_Regulatory_Implications_Final.pdf
- Structural Separation and Prospects for Welfare-Enhancing Price Discrimination
  - http://www.iscr.org.nz/f580,16593/16593_Efficiency-raising_price_discrimination_with_postscript_.pdf
- UFB2.0: Revised separation boundaries
  - http://www.iscr.org.nz/f594,16948/16948_Current_Comment_UFBI_2_0.pdf
- Will Abolishing the TSO End Universal Service Pricing?
  - http://www.iscr.org.nz/f560,16057/16057_Abolishing_the_TSO_Compensation_25-Mar-10_v3_.pdf

REFERENCES (ISCR WEBSITE) cont

Howell & Grimes

Feeding a Need for Speed

http://www.iscr.org.nz/f563,16240/16240_Feeding_a_Need_for_Speed_v4.pdf

Howell

Flat-Rare Tariffs & Competitive Entry

http://www.iscr.org.nz/f577,16530/16530_Tariff_Structure_and_Competitive_Entry_BH.pdf

CityLink Case study

http://www.iscr.org.nz/f555,17832/17832_Howell_Models_for_dark_fibre_broadband_networks.pdf

Levin

Issues and Policies for Universal Service

http://www.iscr.org.nz/f605,17350/17350_Universal_Service_and_Net_Neutrality_in_Broadband_-_Final.pdf

Potgieter

Broadband Network Structure and natural Monopoly

http://www.iscr.org.nz/f555,17837/17837_Potgeiter_Broadband_network_.pdf