BROADBAND IN NEW ZEALAND: a market in search of a competition policy?

Presented at the CommsDay Auckland Summit
July 27 2011

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OUTLINE

Some fundamentals of competition and regulation policy and practice

Application to NZ UFB

Conclusion:

NZ broadband market appears to lack an overarching set of consistent and cohesive competition policy objectives leads to ongoing uncertainty, limits to ability for the industry to evolve efficiently
WHAT ARE MARKETS?

Dynamic institutions
buyers and sellers interacting
in response to own incentives to increase individual welfare

Open, complex adaptive systems
interactions evolve over time as incentives alter
subject to external shocks (e.g. technological change, regulatory intervention)
altering any or all of production methods, transactions, institutions, activities, resource allocations
SYSTEMIC INTERACTIONS

- Technologies
- Markets
- Applications
- Services
- Regulation
- Policies
TECHNOLOGICAL CHALLENGES

‘Natural monopoly’ cost characteristics of legacy copper networks challenged by falling costs of new technologies bypass investments (at least in urban/metropolitan areas)

Ever more capable networks
  e.g. fibre-optic cable

Convergence
  to a standard digital format

Divergence
  number of network types moving digital data
  copper, HFC, mobile, wireless, satellite, fibre

application diversity
REGULATION AND MARKETS

Both subject to pressures from technological change

Regulation as an alternative to competition law governance

but recent history has been to regulate to achieve more efficient outcomes by promoting competition

Regulation too must constantly evolve

e.g. to changes in technologies, the balance of market power

But regulation may also affect the rate of technological innovation in a market

e.g. the time of investment in new (‘frontier’) technologies
REGULATION

Goal:

Sub-goals:

(i) promotion of competition

(ii) incentivising efficient investment in infrastructure

(iii) allowing consumer choice between technology platforms

(v) ensuring a sustainable industry

(vii) regulate if clear evidence of market inefficiencies (and no effective non-regulatory options)

Criteria for intervention:

(iv) minimise compliance costs

(vi) provide sufficient certainty and minimise transition disruption

Constraints on intervention:
PRINCIPLES FOR EFFICIENCY-RAISING REGULATION

Forward-looking
most efficient outcome *IN THE LONG RUN*
not used to “settle old scores”

Structures must be able to evolve
pre-determined, ossified industry structures militate against efficient evolutionary responses when indicated

stable *PRINCIPLES* (not industry structures) foster efficient industry evolution

Targets markets, not firms
DEFINING A RELEVANT MARKET

Dimensions

Product
- broadband; fixed line; technology type?
- access; backhaul?

Geographic
- national; regional (rural/urban); regional (33 separate territories)?

Functional

Temporal

Customer
- business or residential; wholesale or retail?
REGULATORY OBJECTIVES

Intervention only to increase long-term market efficiency

Sustainable industry
role of subsidies?
regulation-dependent parties?

Trade-offs
allowing customer choice of technology
incentivising infrastructure investment
promotion of competition

Constraints
minimise compliance costs
sufficient certainty, minimal disruption
COMPETITION

A means to the end of increased efficiency
not an end in itself

What sort of competition?

- infrastructure (facilities-based) competition
  - the long-run objective of Access Regulation
  - outcome of the ‘Ladder of Investment’
  - efficacy of Access Regulation reduced

- services competition (basis is Access Regulation)
  - as long-run solution presumes eventual infrastructure competition
    infeasible
  - but presumes some inputs are replicable (retail, backhaul, DSLAMs etc)

- benchmark competition
UFB NOT IMPLEMENTED IN A VACUUM

Existing infrastructure investments
  Telecom (FTTC/ADSL2+ network)
    unbundling competitors’ investments (DSLAMs, backhaul, etc)
  other infrastructure competitors
    TelstraClear HFC (Wellington, Christchurch)
    CityLink dark fibre (Auckland, Wellington)

Increasing competition from mobile competitors
Rapidly maturing residential broadband access market
  very elastic w.r.t. faster connections (TelstraClear evidence)
  no obvious ‘killer apps’ (except HD/3D video on demand)
IMPLICATIONS FOR BROADBAND MARKET

Government investment a ‘strategic shock’
What objective?
  sustainable industry?
  what market?
What subgoal?
  allowing consumer technology choice?
  incentivising efficient investment in infrastructure?
  promotion of competition?
What principles govern the investment?
How does this affect regulation?
ASSUMPTION 1:
FIBRE IS A ‘FRONTIER TECHNOLOGY’

One ‘bottleneck’ infrastructure replaces another
Investment ‘brings forward’ the substitution of ‘legacy’
copper networks with fibre connections?
  scale economies => rapid substitution from copper to fibre required
Implications for regulation of copper network
  structural separation antithetic to rapid, co-ordinated substitution of
  subscribers from copper to fibre
  sustained access regulation of copper network access leads to
  fierce competition on copper network
  avoids asset stranding (Telecom and unbundling entrants)
lower ADSL prices => delayed uptake of fibre
what role for ‘ladder of investment’?
  fibre ownership restrictions eliminate copper investment incentives
IMPLICATION 1

ONGOING REGULATION OF COPPER NETWORK COUNTER-INDICATIVE TO UFB UPTAKE OBJECTIVES

regardless of how the frontier technology might be regulated
ASSUMPTION 2: FIBRE NETWORK INDUCES INFRASTRUCTURE COMPETITION FOR COPPER BOTTLENECK

Infrastructure competition is end objective of Access Regulation (and ‘ladder or investment)

Government has invested because

(a) the ladder has not been climbed ‘fast enough’?

(b) Access regulation has chilled investment by both the incumbent and entrants?

If Government investment implies Access Regulation has ‘failed’, why persist with it?

if fibre truly superior, then copper access regulation regime irrelevant

ongoing AR simply distorts fibre uptake
IMPLICATION 2

ONGOING REGULATION OF COPPER NETWORK COUNTER-INDICATIVE TO UFB UPTAKE OBJECTIVES

And regulation of the frontier technology needs to be rethought if infrastructure competition is to be truly technology-neutral
SO WHAT IS GOVERNMENT COMPETITION POLICY?

Government investment to promote infrastructure competition?

Telecom rivals get contracts for Northland, Central North Island, Timaru
  but also Christchurch, where infrastructure competition already exists

but Telecom gets contracts where infrastructure competition already exists
  Wellington, Kapiti, Lower Hutt

as well as substantial areas where it doesn’t
  e.g. Dunedin, Auckland
AND WHAT IS GOVERNMENT POLICY ON REGULATION?

Investment because Access Regulation has failed?

Access Regulation is retained for all copper services exactly as if there was no UFB

No distinctions in regulation of copper network despite very different competition profiles in many areas

Telecommunications Commission oversees COPPER ACCESS REGULATION as before

plus enforces UFB undertakings

But no power to meaningfully review BROADBAND MARKET COMPETITION in a technologically neutral manner

problematic given different approach taken to UFB contracts in different geographic regions
PRINCIPLES GOVERNING BROADBAND MARKET COMPETITION

What has been revealed so far suggests inconsistency, lack of clarity

So unsurprising to find regulatory policy is at odds with government fibre uptake objectives

Unclear how market under current regulation will respond to exogenous shocks
    technological change
    political uncertainty
TECHNOLOGICAL CHANGE

Ever more capable mobile networks
  especially relevant for sparsely populated locations (e.g. NZ)
More capability being eked out of copper
Sparsity of new applications necessitating ubiquitous high-speed symmetric access
Increasing evidence of elastic customer demand
  speed isn’t everything
  high usage does not necessarily mean highly-valued usage
    (especially for users inured to flat-rate pricing)
large skews in demand for high capacity networks
IS THERE A SOLUTION?

Resolving competition policy objectives before government contracts tendered/let would have reduced confusion, improved consistency comparison - Australian NBN

But still no substitute for first defining the market(s) and then identifying any inefficiencies before selecting an appropriate remedy that Increases market efficiency whilst simultaneously
minimises compliance costs
provides sufficient certainty for market participants and minimises transition disruption
NZ

A broadband market in search of an overarching competition policy to guide regulatory decision making, market interactions and (ultimately) technological innovation in the sector
REFERENCES (ISCR WEBSITE)

Evans & Hahn
Regulating Dynamic Markets

Heatley & Howell
Price Discrimination and Structural Separation

Regulatory Implications of Structural Separation

Structural Separation and Prospects for Welfare-Enhancing Price Discrimination

UFB2.0: Revised separation boundaries

Will Abolishing the TSO End Universal Service Pricing?
REFERENCES (ISCR WEBSITE) cont

Howell & Grimes
Feeding a Need for Speed

Howell
Flat-Rare Tariffs & Competitive Entry

CityLink Case study

Levin
Issues and Policies for Universal Service

Potgieter
Broadband Network Structure and natural Monopoly