



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

# **FROM COMPETITION TO REGULATION: New Zealand's Telecommunications Sector 1987-2009**

**PRESENTED AT THE ACCC, MELBOURNE  
NOVEMBER 27 2009**

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# NEW ZEALAND

First OECD country to adopt competition law as primary form of industry governance (1987)

Sea-change in approach to telecommunications industry governance since 2000

- ministerial inquiry 2000
- industry-specific regulator appointed (2002)
  - regulated determinations for interconnection, access pricing
- bitstream unbundling (2003)
- full local loop unbundling (2006)
- mandatory three-way functional separation (2007)
- direct ministerial intervention in separation and mobile termination processes (2007)
- government fibre investment 2009



# IMPLICATIONS

180 degree 'swing of regulatory pendulum' suggests  
'light-handed' industry governance 'failed'

- hence change in legislative provisions

But

If industry-specific regulatory governance was adopted  
because it offered superior performance compared to  
'light-handed' governance

Then it too must have 'failed'

- providing justification for successive increasing intensity of  
regulatory instruments imposed



## BUT 'FAILED' TO MEET WHICH OBJECTIVE?

The primary normative objective of law- and policy-making is the promotion of economic efficiency via the elimination of market inefficiencies

Competition law and industry-specific regulation are two tools (either complements or substitutes) invoked in order to increase efficiency (relative to the status quo)

Pursuit of increased competition and/or regulatory intervention are therefore merely alternative *means* towards achievement of the desired *end* – increased efficiency



# MEASURING PERFORMANCE

Efficiency (total welfare = consumer welfare + producer surplus) is the relevant performance metric

- taking account of both static and dynamic components
- ‘success’ = welfare increases; ‘failure’ = welfare decreases

## Framework for analysis

- market share a poor proxy for welfare
- prices best capture (static) consumer welfare effects
  - benchmarked across time (price indices) and between countries (in a given time period)
- revenues and prices together indicate producer surplus
- investment levels and entry timing indicate relative dynamic efficiency gains
- transaction costs of ownership/regulation
  - including opportunity cost



# THE EVIDENCE



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# THE NZ CONTEXT - 1987

Policy pursuing economic efficiency (all dimensions)  
and

*“achieving, wherever possible, a competitive environment in which markets can operate relatively free from subsequent government involvement”*

*(Evans, Grimes, Wilkinson & Teece, 1996:1863).*

Small scale of NZ => high overheads of industry-specific regulation

- 4 million people, highly concentrated markets (3-firm concentration levels over 90% in all significant industries)

‘Light-handed’ approach a pragmatic response



# 'LIGHT-HANDED' REGULATION

Dominant firms are inevitable in a small market

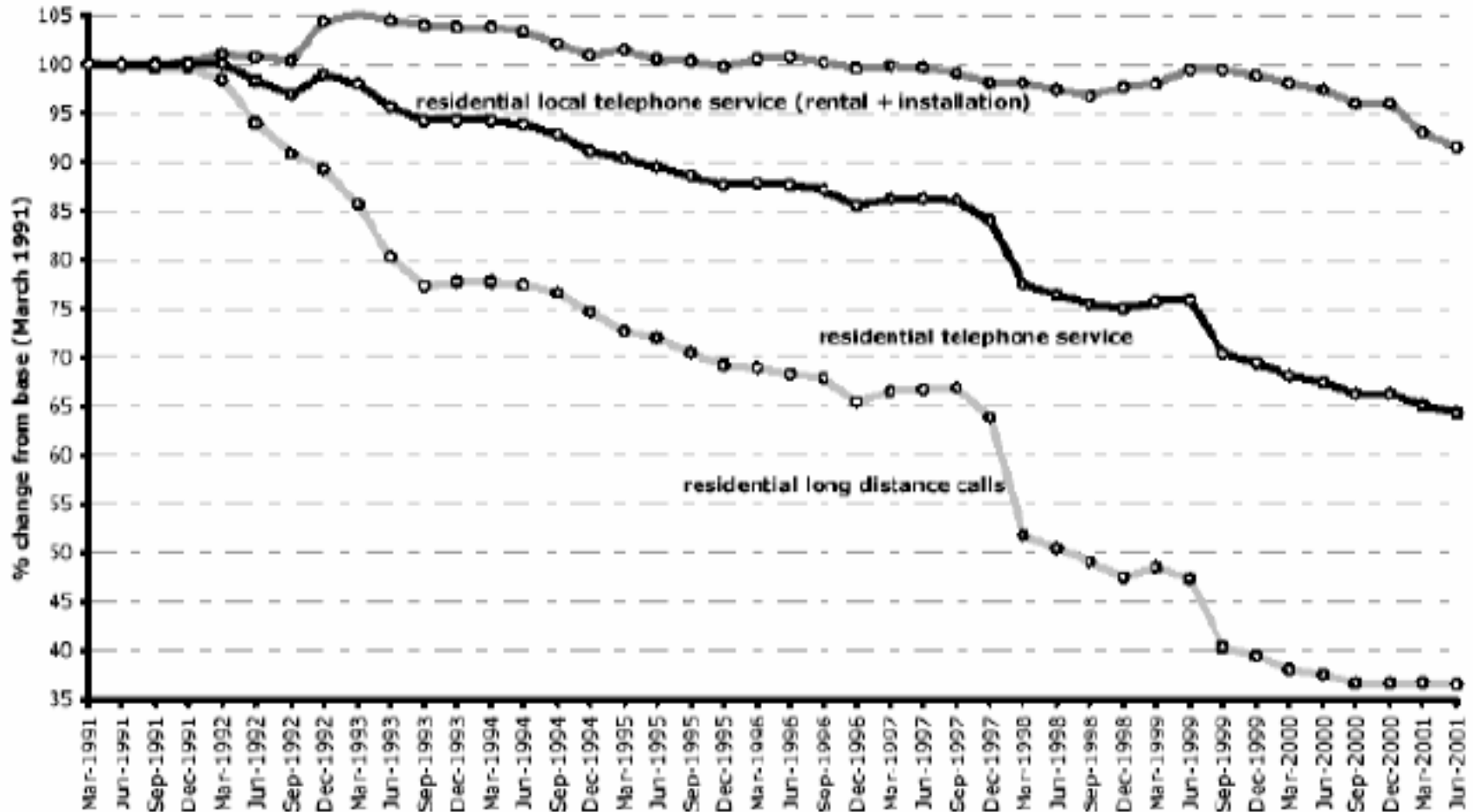
- dominance *per se* is acceptable
  - actual and potential entry impose important disciplines
- exertion of a dominant position to foreclose competition is not
  - trade-off – fixed costs of industry-specific regulation vs actual (and opportunity) costs of exertion of dominance

But NZ was not an 'unregulated' market

- Part IV of Commerce Act allowed price regulation in industries where dominance existed
- additional constraints, reporting requirements on Telecom via Telecommunications Act
- 'Kiwi Share' imposed contractual obligations on Telecom
  - 'price cap', 'universal service', 'free local calling' obligations

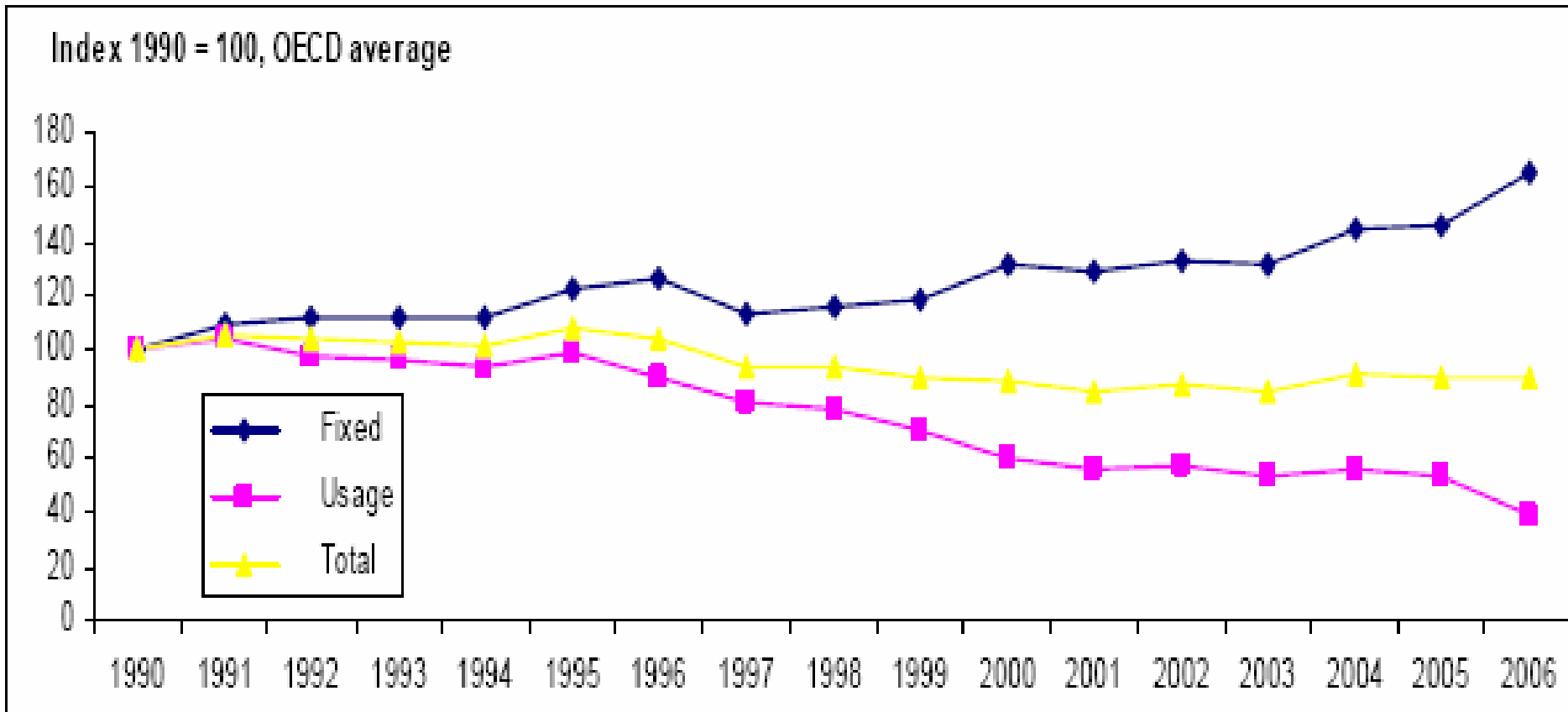


# NZ REAL RESIDENTIAL TELEPHONE PRICE INDEX 1991-2001

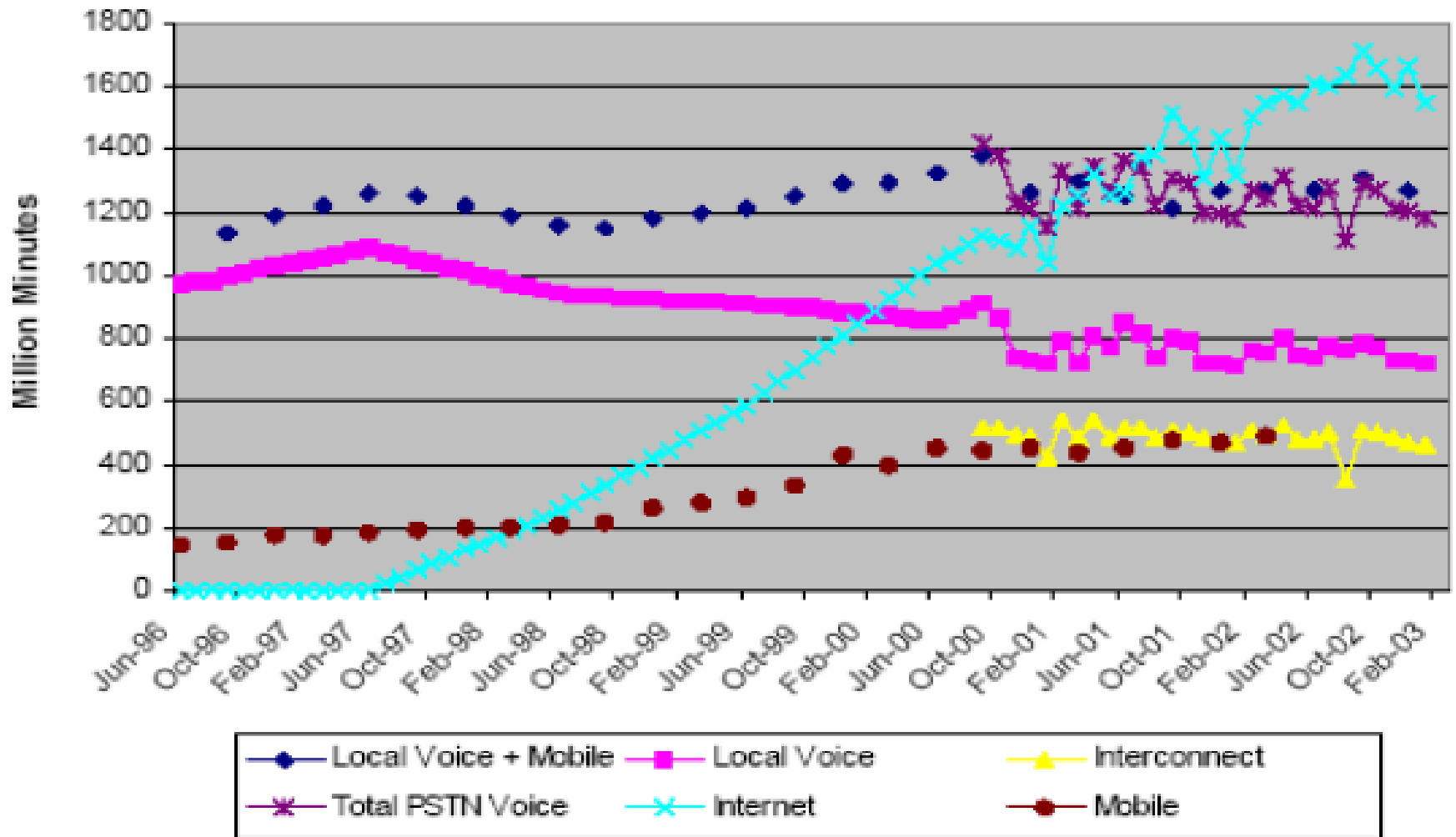


Source: Statistics New Zealand

# OECD TELEPHONE CHARGE TIME SERIES 1990-2006



# 'FREE LOCAL CALLING' AND INTERNET USE



# 'FREE LOCAL CALLING' AND INTERNET USE

## Internet calling not reflected in price indices

- NZ one of highest dial-up internet-using OECD countries
  - average of 35 hours per month for 850,000 connections (2003)
- four fifths of PSTN traffic not charged (2003)

## Competitor arbitrage on interconnection agreement

- shared with ISPs as 'sign-on' fee
- ISPs shared with consumers
  - free or very low priced ISP connections
  - 30% lower fees, 13% more accounts per capita than Australia even though only one third number of ISPs per capita

## Telecom unable to pass on charges to consumers

- 'free local calling' and 'price cap' obligations



# TELECOM'S SOLUTION: ADSL

Early (January 1999 – OECD's 3rd commercial offering)

High-quality (base speed 2Mbps)

- 8<sup>TH</sup> fastest incumbent-offered service in 2007

Cheap (3<sup>rd</sup>-lowest in the OECD per mbps in 2000)

- 7<sup>th</sup>-lowest monthly prices, and per megabit-second in 2007

Widespread (85% of lines capable by 2003)

- 94% BY 2007

Universal pricing

Chargeable (to the consumer)

Unregulated (at the time)



# DYNAMIC EFFICIENCY

No 'classic' evidence of a 'monopoly problem'

- investment levels high and early

Multiple fringe competitors

- fixed line – 19 registered providers in 2003
- broadband – five technologies (satellite, mobile, wireless, cable, ADSL) by 1999 – three nationwide
- satellite (nationwide) the price leader

Court cases

- took time to resolve (uncertainty)
- but parties could still trade whilst contracts litigated
- once resolved, initial contracts became benchmark for 'me too' entry



# LITTLE EVIDENCE THAT 'LIGHT-HANDED' REGULATION HAD 'FAILED'

Relative to other regimes subject to industry-specific regulation

Relative to the pre-1990 performance metrics

Rather, evidence that consumer welfare, dynamic efficiency levels were at least as high, if not higher, in NZ than in comparator regimes

- without incurring the overheads of industry-specific regulation

But

- market not 'competitive' (measured by market share of entrants)
- long time taken to reach decisions (3 years in court)
- adversarial, litigious processes



# INDUSTRY-SPECIFIC REGULATION 2002-2009

## ‘Light-handed’ industry-specific regulation

- Telecom not charging perfectly competitive, cost-based prices => need for regulation
- regulator appointed (in Commerce Commission)
- regulated interconnection at TSLRIC prices, wholesale data access at regulated retail minus pricing mandated
- full LLU rejected

## The ‘best of both worlds’?

*“would still see New Zealand at very much the light-handed end of the spectrum, arguably the lightest in the OECD”*

Ministerial Inquiry, 2000



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# THE REALITY

## Long delays in regulatory processes

- quasi-judicial process – lodgement, draft determination, conference, revised determination, appeal, final decision
- Regulator's budget more than doubled in three years, yet still took over three years to settle some disputes

## Perverse incentives: all agreements with Telecom became subject to regulatory intervention

- no recourse to regulated terms for a service if another provider got a 'better deal' from regulator
- no trading occurred until regulated deal struck



# THE REALITY II

## Competitor investment incentives removed

*“we believe it’s more industry efficient for TelstraClear to buy from Telecom rather than build duplicate networks to reach consumers who are widely spread throughout New Zealand”*

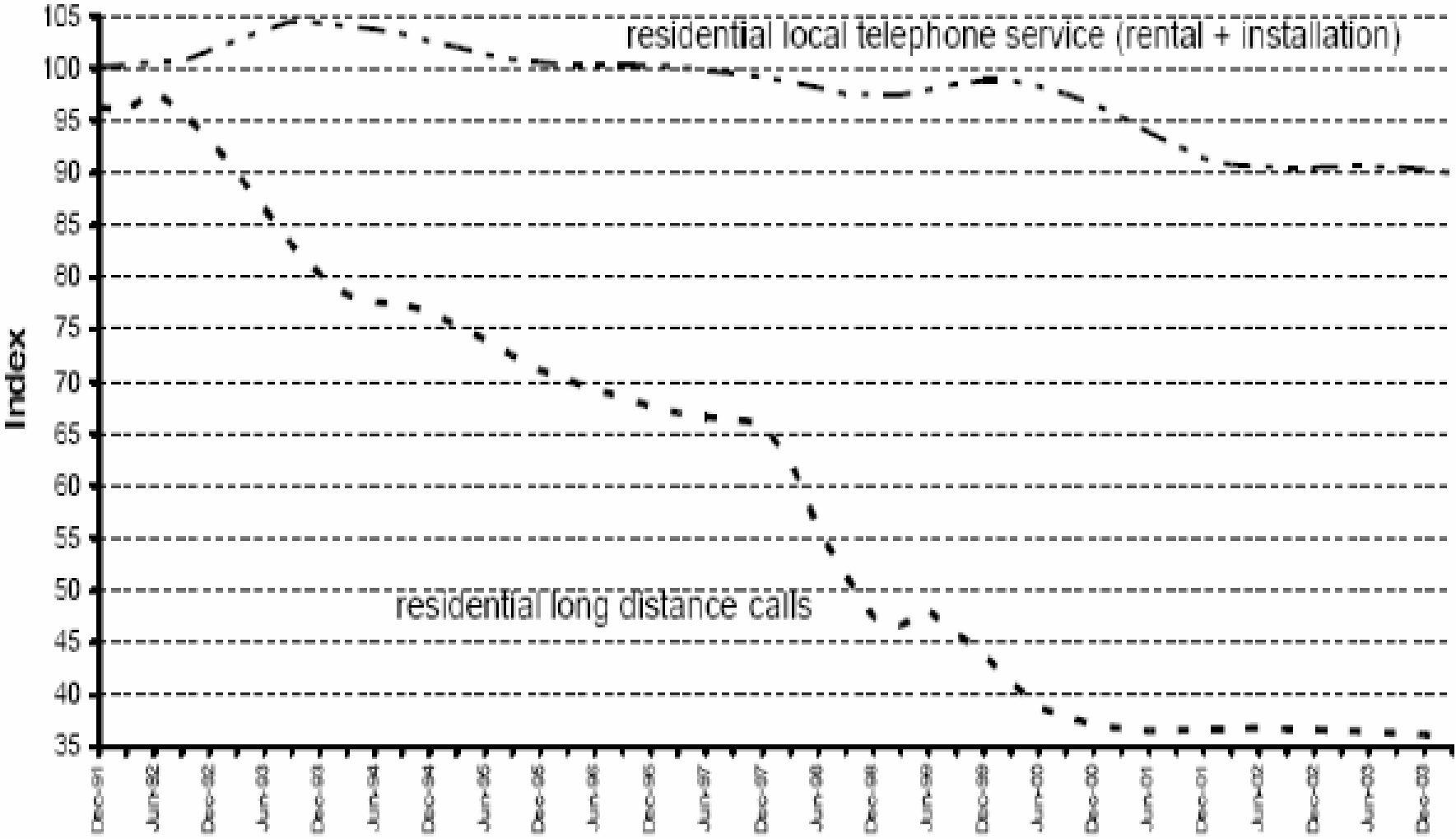
*Rosemary Howard, TelstraClear CEO, 2002*

Greater uncertainty as costs of social obligations levied as a tax on the industry *ex post* rather than *ex ante* in Telecom’s prices to its competitor-customers

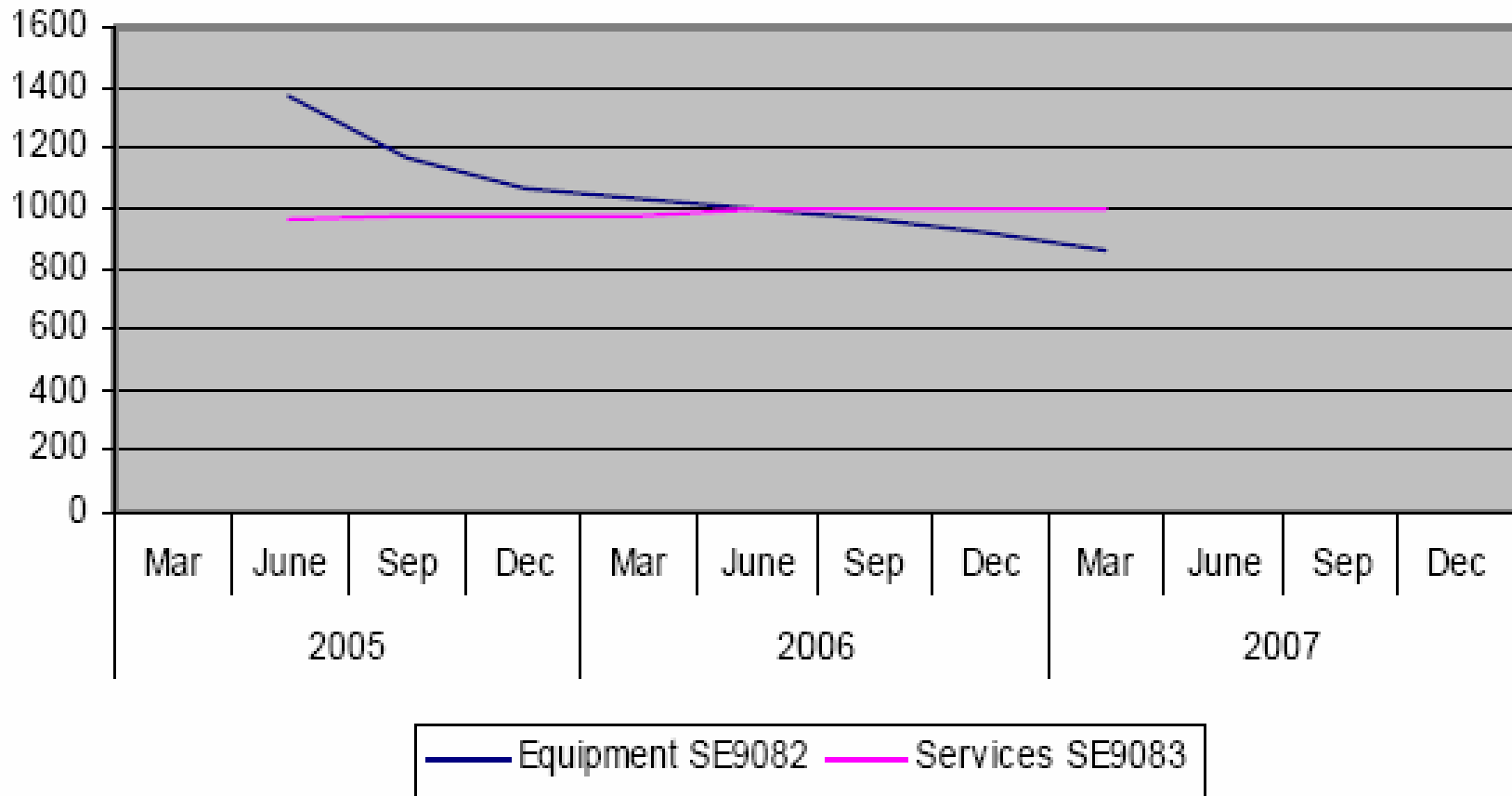
- levied up to three years after liability incurred due to regulatory delays



# A STATIC MARKET?



## NZ Telecommunications Consumer Price Index



# REGULATORY ARBITRAGE

Despite low ADSL prices, NZ broadband uptake remained sluggish

LLU inquiry (December 2003) rejected full LLU, but mandated limited bitstream unbundling

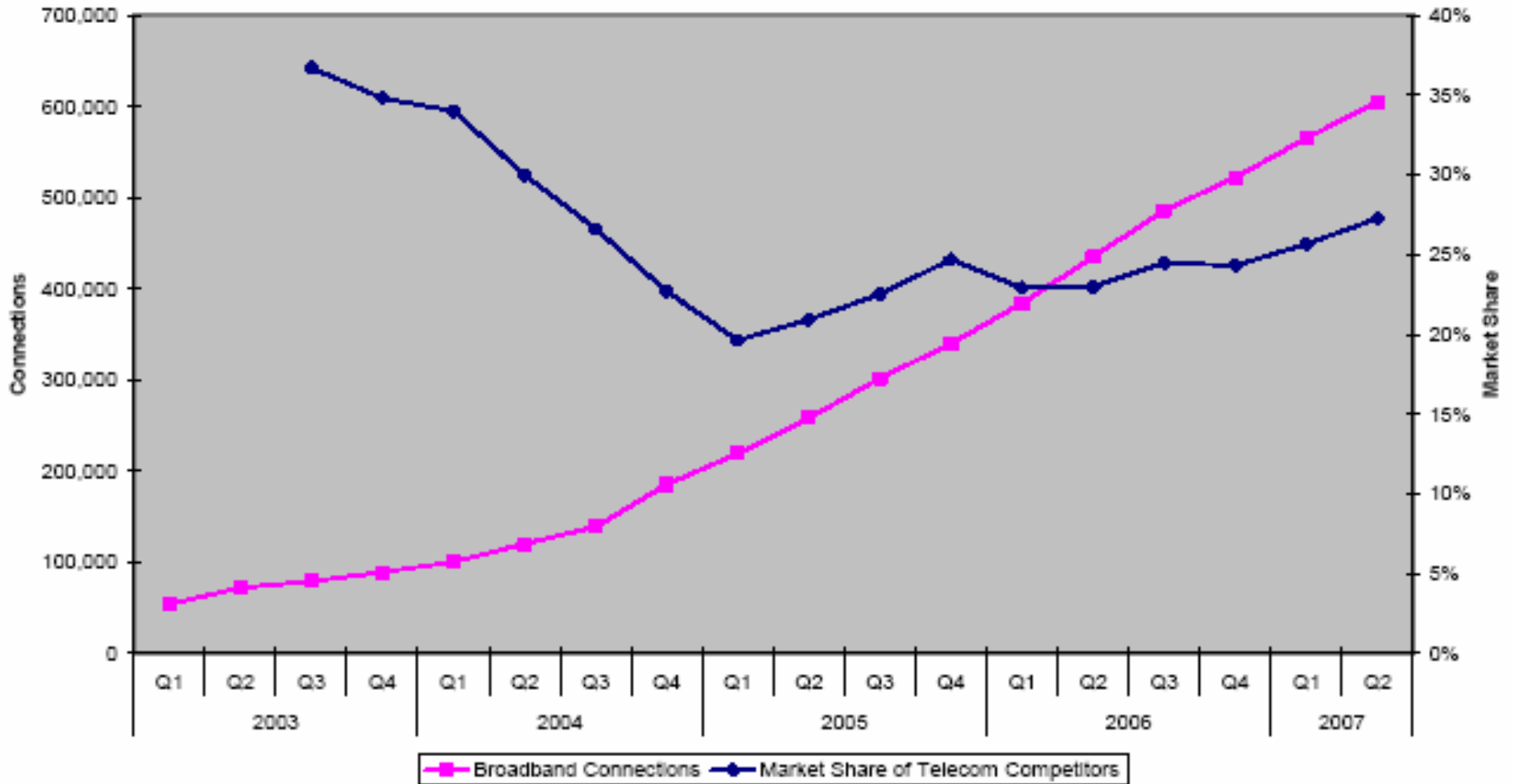
- subject to Telecom selling 250,000 DSL connections by December 2005 (33% via competitors)
- also avoiding stranded assets given imminent NGN rollout

First bitstream services available September 2004

- few incentives for entrants to sell bitstream
- Telecom's already low DSL prices meant entrants received higher margins from selling dial-up
- why help Telecom meet obligations, thereby reducing likelihood that full LLU would subsequently be introduced?



## New Zealand ADSL Market 2003-2007



# INDUSTRY-SPECIFIC REGULATION ALSO 'FAILED'?

December 2005

- Telecom sold 11% more ADSL connections than agreed (welfare proxy higher than projected)
- but only 24.9% sold by entrants (competition target not met)

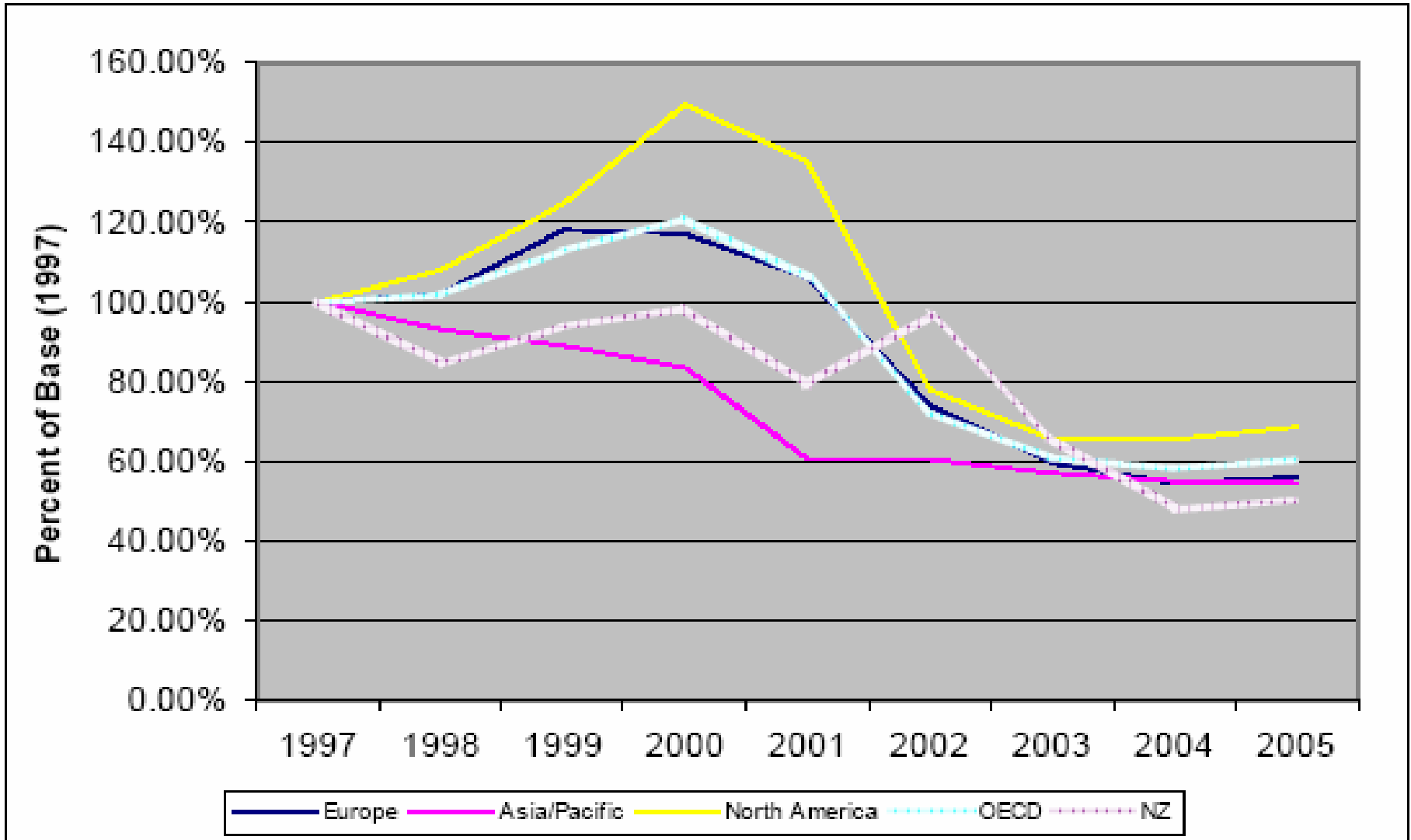
May 2006 'Stocktake'

- Ministry, not the Regulator, led the inquiry
- full LLU mandated as market not 'sufficiently competitive'
  - claim: increased competition would increase broadband uptake (target is top quartile of OECD in broadband connections per capita)
- Telecom was not investing 'enough'
  - allegedly exerting its dominance
  - LLU would increase investment in sector (based solely on advice from OECD and solicitation of competitors' opinions)

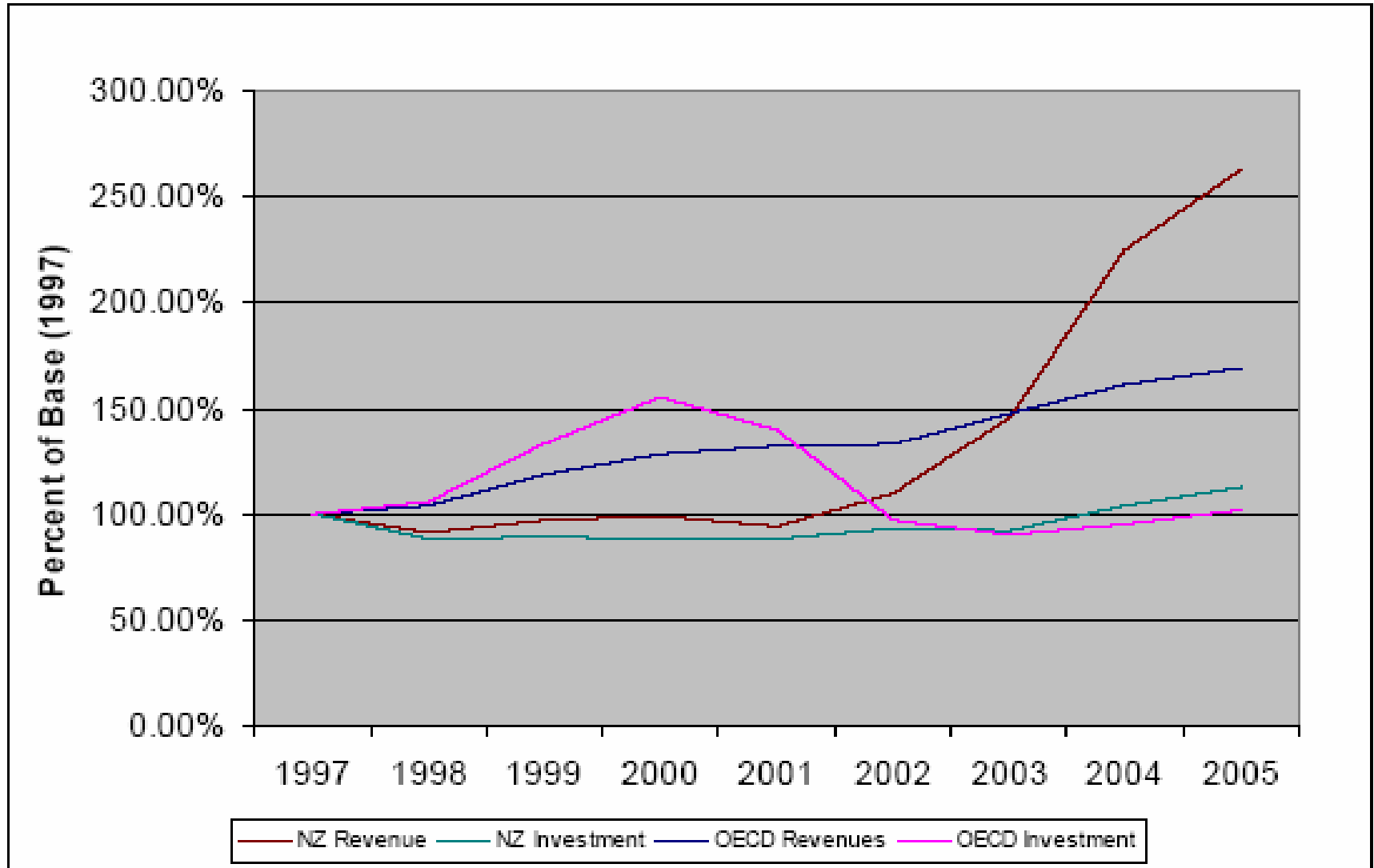


# THE REAL INVESTMENT STORY

## Investment as a Percentage of Revenues



# INVESTMENT REQUIRES RETURNS



# SUBSEQUENTLY

## May 2006

- Telecom share price falls 28% (between \$4 and \$5 billion lost)

## April 2007

- three-way functional separation mandated
- Minister (not regulator) to supervise

## May 2007

- Telecom announces it can only justify \$500 million of the \$1,500 million needed for NGN
- returns \$1,000 million to shareholders

## December 2007

- Telecom announces \$1,200 million NGN investment
- network comparable to 2003 plans
- but cost of capital will be higher due to reduced market capitalisation



# 2008

Telecom share price continues to fall

- 15 year low (real price less than at privatisation)

Some Telecom shareholders calling for full structural separation and sale of the network assets

- although rejected at AGM

Entry via unbundling “more costly than anticipated” (Kordia)

Unbundled exchanges being bypassed as NGN rolled out

- entrants claiming ‘uncompetitive’ action leading to stranded assets
- most exposed firm is a State-Owned enterprise (Kordia/Orcon)

Ongoing regulatory and legislative uncertainty

- sub-loop unbundling terms in dispute
- uncertainty over undertakings
  - Telecom found in breach when engaging in price discrimination with non-owned firms
  - if only one price allowed, why impose costly structural separation when simple price regulation would suffice?



# 2009

## Government fibre investment

- \$1.5 billion (28 regions)
- structurally separate
- control/investment by retail firms restricted

## Threatened stranding of existing infrastructure investments

- Telecom FTTC (plus unbundling competitors' assets)
- TelstraClear FTTH

## Government assumes all FTTH investment risk

- why invest in any competing fixed network?
- ensures likely ongoing monopoly
  - despite facilities-based competition clearly viable in some locations
- perpetual regulation?



# THE EVIDENCE BEGS QUESTIONS

If, using efficiency metrics, the competition law-based regime did not 'fail' relative to alternatives

AND

Industry-specific regulatory interventions adopted to date have lowered efficiency even further

WHY ARE THEY BEING PURSUED?



# A MATTER OF OBJECTIVE

Pursuit of competition has replaced pursuit of efficiency as the overriding sector objective

1980s reforms

- pursuit of competition is merely a means towards the end of increased efficiency

Telecommunications Act 2001

- S18(2): “in determining whether or not, or the extent to which, any act or omission will result, or will be likely to result, in competition in telecommunications markets for the long-term benefits of end-users of telecommunications services within New Zealand, ***the efficiencies that will result, or will be likely to result, from that act or omission must be considered***”



# IMPLEMENTING THE OBJECTIVE I

## LLU Inquiry 2003

- full LLU rejected on total efficiency grounds
  - projected gains very small compared to the risks incurred
  - NGN investment imminent
- politically unpopular, but Minister accepted recommendation

## Mobile termination Inquiry Round 1 June 2005

- consumer welfare benchmark, but dynamic efficiency paramount:
  - “where there are tensions between short-term allocative efficiency and long-term dynamic efficiency, the Commission takes the view that giving weight to the latter will generally better promote competition for the long-term benefit of end-users” (para 28)



# IMPLEMENTING THE OBJECTIVE II

## General Election September 2005

- “this Labour-led government has ended the destructive period of ultra-light handed regulation that has stifled competition, growth and consumer choice in ICT markets” and “will closely monitor and enforce commitments made by Telecom New Zealand ... and ensure targets for broadband uptake ... are met” – Labour Party Manifesto

## Speech from the Throne, November 2005

- “my government will be advancing policies to ensure that the telecommunications sector becomes more competitive and that we achieve faster broadband uptake in line with our competitors” – Governor General Dame Silvia Cartwright



# IMPLEMENTING THE OBJECTIVE III

## Mobile termination Inquiry Round 2 April 2006

- “where there is a tension between the net public benefits and promotion of competition, the statutory context indicates that the primary consideration is the promotion of competition’ (para 47)
- “the Telecommunications Act is focused on regulating access to promote competition. It does not provide a mechanism that specifically allows for efficiency considerations to take precedence over the promotion of competition. Nor is there anything in the statutory scheme to suggest this is the case” (para 48)

## But what about S18(2)????

- what if increasing competition decreases efficiency? or reducing competition increases it (e.g. curbs over-much entry in the presence of sunk entry costs)?



# IMPLEMENTING THE OBJECTIVE IV

## ‘Stocktake’ January to May 2006

- Ministry, not Commission, leads
  - no market or cost-benefit analyses undertaken (failure to meet market share targets and lower entrant market shares than the eight highest-ranking OECD countries in broadband connections per capita used to support claims of an insufficiently competitive market)
  - but full LLU and three-way functional separation recommended to address a competition problem deemed to be inhibiting broadband uptake

## Telecommunications Amendment Act 2006

- new clause (19A) added
  - Commission must “take account of any economic policies of the Government that are communicated by the Minister in writing”



# A NEW OBJECTIVE?

The *means* has become the *end*

- pursuit of competition apparently trumps pursuit of efficiency by dint of its power as currently prevailing government policy

Enshrining efficiency in the statute (S18(2)) has been insufficient to protect it as the pre-eminent sector objective

- a government cannot bind its successors to maintain past laws (either in wording or intent of enforcement)
- how can the regulator be truly independent?
- or true to the economically rational efficiency objective?

What role is left for the pursuit of efficiency?

- or for the regulator established as its custodian in sector governance?



# ILLUSTRATING THE CONSEQUENCES

The Minister, not the Commissioner, led functional separation

due to “the urgency attached by the government to the need to secure a clear outcome on this matter in the shortest possible timeframe. Because this is a major structural issue and not a matter of micro regulation, this was felt and is still felt to be the appropriate way forward” Hon David Cunliffe, May 2007

The Minister of Economic Development brokered mobile termination agreements between operators

Fibre programme follows existing separation principles

Pursuit of functional separation on ideological, not economic, grounds

- not ‘levelling the playing field’ despite very high fixed costs
  - approximately 12 months broadband connection charge per internet user (10 times the UK per-account costs)
- including government-funded fibre investments



# CONCLUSION I

## Using efficiency metrics, in New Zealand

- ‘light-handed’ regulation outperformed contemporaneous benchmark regimes with industry-specific governance (it did not fail)
- ‘industry-specific’ regulation led to overall reduced efficiency relative to its ‘light-handed’ predecessor (it has failed)
- increasingly stronger regulatory intervention is exacerbating the problem (it is not the solution)

## ‘One-size’ regulatory rules & measures do not fit all markets

- individual, market-specific circumstances, context, contracts and strategic responses matter
- efficiency, not competition, measures are the best guides for assessing performance



# CONCLUSION II

Competition and regulation are processes and not end-states

- absence of the artefacts of perfect competition is NOT evidence that competition law governance has ‘failed’
- blind pursuit of increased competition in markets where competition has failed (or will fail) to increase efficiency is tautological
- a regulatory institution is not a necessary pre-condition for the imposition of industry-specific regulation (contracts – e.g. the Kiwi Share – can have profound effects on efficiency outcomes)

Both competition law and regulatory policy must be guided by pursuit of increased efficiency as the desired end

- there are many different context-dependent means of achieving this end-state
- independent regulators and courts are better-placed to make the judgements than highly conflicted politicians

