



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

POLITICAL POLICIES AND REGULATORY PROCESSES: The Path to Local Loop Unbundling in NZ

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CORPORATE MEMBERS

Auckland International
Airport Limited

Contact Energy Ltd

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Dairy Group Limited

Meridian Energy

New Zealand Post Ltd

NGC

Powerco

Telecom Corporation
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Transpower New Zealand Ltd

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A GOOD POLICY DECISION NEEDS GOOD INFORMATION

The 'litmus test' is a cost-benefit analysis

- basic expectation
 - the EC requires assessments of the effects of all proposed regulations (COM(2005)518)

The policy process should surface all relevant information to inform a CBA

- the relevant issues
- the relevant data

The process should be transparent

- enables the merits of the policy and accountability of the decision-makers to be easily evaluated



HAS THE POLICY-MAKING PROCESS LED TO A SOUND DECISION?

Comparison of two processes

- Commission Inquiry in 2003
 - detailed cost-benefit analysis informed the process
 - but returns evaluated in light of factors unable to be adequately modelled
 - small returns + large uncertainties = value of deferring regulation
- Politically-led process 2006
 - detailed cost-benefit analysis was not undertaken
 - “a new quantitative cost-benefit analysis has not been undertaken by the Ministry”
 - “a number of important international trends have been observed since 2003”
 - » OECD says LLU is regulatory best practice
 - » evidence of increased competition leading to increased broadband uptake
 - these deemed sufficient to proceed without further analysis
 - the 2003 analysis considered irrelevant



HISTORY I

Telecommunications Review 2000

Telecommunications Act 2001

- Telecommunications Commission established within Commerce Commission

‘Section 64’ Review into Local Loop Unbundling 2003

- Commenced April, 2003 (Issues Paper)
- Draft determination September 2003
- Amended draft determination October 2003
- Conference on amended draft report November 2003
- Final report December 2003
 - Commissioner recommends against full unbundling (but requiring limited bitstream provision (a less radical option))
 - Minister accepts Commissioner’s recommendation May 2004



HISTORY II

November 2005: Speech from the Throne

- “with respect to ICT, 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”

December 2005: MED-led ‘Stocktake’ commences

- primary focus on “the broadband market and our broadband performance as a factor in economic performance”

Feb 2 2006: Commissioner notifies Minister of Telecom’s broadband monitoring against targets

- more connections sold than required (116%)
- but fewer than expected sold by new entrants (24.5% not 33.3%)



HISTORY III

Feb 14 2006: PM to Opening of Parliament

- “we want to work with other parties on solutions which not only enable New Zealand to catch up with the rest of the world, but also enable us to keep up as these technologies develop further”

May 3 2006: ‘Stocktake’ findings made public

- recommends
 - full unbundling, sub-loop unbundling, backhaul and co-location
 - accounting separation of Telecom

September 2006: Finance and Expenditure Select Committee process

November 6 2006: Select Committee review will report back to Parliament



TELECOMMUNICATIONS COMMISSION'S PROCESS

- 1. Discussion document produced**
 - opportunity for all interested parties to make submissions
- 2. Draft report produced**
 - including full public disclosure of all written submissions
- 3. Revision of draft report produced**
 - full disclosure of all relevant material (including cost-benefit modeling undertaken by the Commission's contracted advisers) enabled the identification of critical errors
- 4. Conference held**
 - interested parties respond; subject the draft report and submissions by other parties that have influenced the report, to critical analysis
 - cross-examination of interested parties by Commission and advisers
- 5. Final report produced**
 - critiqued by Minister and Ministries
- 6. Legislation introduced**
 - recourse to the usual legislative processes



THE POLITICAL PROCESS I

1. Intent of government to intervene announced

- ‘cause’ identified (competition ‘problems’)
- ‘performance metric’ identified (broadband uptake)
- “advancing policies” a strong signal that unbundling (previously rejected - contentiously) is on the agenda

2. MED-led ‘Stocktake’ review commissioned

- participation largely determined by the review team
 - a ‘consultation’ process?
 - “a range of inputs were received” (industry participants)
 - “a series of meetings were held with stakeholders at ministerial and official levels”
 - expert advice
 - “Professor Martin Cave provided peer review on relevant elements” (not identified explicitly)
 - “Dr Rick Boven (of Stakeholder Strategies) also provided consultancy input and other consultancies provided technical input
- Commission’s 2003 reports not included in references



THE POLITICAL PROCESS II

3. Legislative changes announced

- release of key supporting documentation (Cabinet minute, background paper) subject of controversy
 - subsequently added to press release page (date uncertain)
- other documents (some consultant's reports, some papers prepared by the Ministry, stakeholders' written submissions) not released publicly until late June
 - including some with publication dates cited as being later than 3 May (e.g. "Promoting Competition in the Markets for Broadband Services"; "The Cellular Market and Wireless Broadband Issues" dated 28 June)
- other relevant documents identified as critical to the decision (e.g. minutes of MFAT officials meeting with OECD officials) released only after individual OIA requests
- an empirical assessment of the costs and benefits of the changes deemed unnecessary
 - Regulatory Impact Statement



THE POLITICAL PROCESS III

4. **Select Committee submissions closed 11 August**
5. **Select Committee hearings September**
 - very limited opportunities to debate key issues
 - members did not have the benefit of their advisers cross-examining presenters
6. **The final decision is not subject to any further testing**

Has this process elicited robust, contestable debate that ensures all relevant issues are ‘on the table’?



THE KEY ISSUES IN 2003 I

Access to and uptake of broadband is the key objective

- NZ's residential broadband uptake low by OECD standards
 - despite very high internet access, use
 - despite wide availability, low prices, multiple access technologies
- many possible explanations
 - GDP per capita, population densities, urbanisation, substitute leisure applications, price of substitute internet access ('free' dial-up)
- uptake is not necessarily a good proxy for estimating potential economic growth
 - complex interrelationships with skills, applications, industry types etc.

Competition has a role in driving broadband uptake

- but it is far from clear that unbundling *per se* delivers the best competitive outcome for driving broadband uptake
 - theoretically and empirically, inter-platform competition is most influential
 - there is no statistically robust evidence correlating unbundling with higher broadband penetration, when all the other factors determining uptake have been taken into account (although the empirical literature at the time was sparse)



THE KEY ISSUES IN 2003 II

Unbundling policies distort the incentives for investment in infrastructures

- demonstrated theoretically, but little empirical evidence at the time
- particularly important for risky new technologies (e.g. NGNs)
- unbundling may divert investment away from inter-platform competition into intra-platform competition, with the net result that the effects of robust inter-platform competition are lessened

The risks associated with requiring unbundling in embryonic technology markets are substantial (long-term dynamic efficiency issues)

- potentially overwhelming small gains in the present from price reductions (static efficiency issues) and increased competition/product variation on current technologies (short term dynamic effects)



THE KEY ISSUES IN 2006

Largely unchanged

Access to and uptake of broadband; investment in infrastructure are the key foci of the 'Stocktake'

- the subject of reports commissioned from consultants (Network Strategies, Azimuth)
- how LLU will affect uptake and investment crucial to policymaking

The uncertainties identified in the Commission's 2003 process are still relevant

- where are these uncertainties identified in the Stocktake?
- where is the irrefutable evidence that they are no longer material?
 - theoretical
 - empirical



THE 'STOCKTAKE' ADVOCATES THAT

Regulatory intervention is necessary because

- NZ has a broadband uptake 'problem' that is caused by lack of competition in the telecommunications market
- lack of competition has led to lower investment and lower quality products in the NZ market that is depressing competition and thereby broadband uptake

Unbundling is the 'appropriate' intervention because

- it is international regulatory 'best practice'
- it will lead to greater broadband uptake than other policies
- it will lead to greater investment in the broadband market than other policies



BUT THE ‘SUPPORTING EVIDENCE’ IS CONTRADICTORY, UNCONVINCING, AND AT TIMES MATERIALLY FACTUALLY INCORRECT

Analytic methodology questionable

- Network Strategies determination of a competition ‘problem’ achieved using highly unscientific methodology
 - ordinal ranking rejects all of the empirically and theoretically significant determinants significant in cardinal analysis
- NZ investment data self-reported by selected participants

Recourse to the literature is selective

- fails to address (or even raise) the extent of the uncertainties identified by the 2003 inquiry
- relies predominantly on reported comments of other regulators (EU) and policy agencies, and cites only academic literature contained in the reports of these agencies (rather than conducting its own literature review and analysis)
- contains no reference to NZ analyses
 - and undertakes none itself



WHERE IS THE EVIDENCE?

HOW ROBUST IS IT?

HAS THE NZ PROCESS SURFACED IT?

HOW IS IT CRITIQUED/EVALUATED?



1. ‘INTERNATIONAL REGULATORY BEST PRACTICE’ - MED

“a growing consensus on international regulatory best practice for telecommunications regulation ... recognised and promoted by the OECD which encourages the regulation by its member states of wholesale access products, even where there is a significant alternative operator utilising technology other than .. ‘DSL’ ... connections”

MED ‘Promoting Competition’ para 4



‘INTERNATIONAL REGULATORY BEST PRACTICE’ - OECD

OECD, 2001:

- “the most fundamental policy available to OECD governments to boost broadband access is infrastructure competition”
- “the likely winners are those companies that own, manage and are responsible for their own infrastructures”
- “clearly, infrastructure competition is the best policy tool available, but the reality is that it takes time to roll out competitive platforms” – i.e. unbundling is a stepping stone to full infrastructure competition
- “one of the key ingredients why some countries are forging ahead is whether there is competition between different networks with different technologies”

OECD, 2003:

- “LLU is not a panacea. LLU cannot address all issues involved in relation to local competition”
- “rebalanced prices are important for new entrants wanting to take advantage of unbundling” – without it entrants “can be caught in a price squeeze and maybe unable to offer services at competitive prices”
- “care must be taken to distribute the planning risks equally to both sides”



THE SUPPOSED OECD ENDORSEMENT

“Unbundling has not only delivered on the promise of lower prices through competition in the retail market, but has resulted in new entrants providing increasingly higher speeds and bundled services including the provision of television programming on XDSL” OECD Communications Outlook, 2005 cited by Network Strategies

But where is the empirical evidence?



US, EU

Only 2 countries (US, NZ) have undertaken a detailed analysis post 2002

- both regulators recommended caution

US is now moving away from mandating unbundling nationally (FCC 2005-A)

- individuals states (e.g. California) reducing regulatory requirements

EU is undertaking a review of all 18 of its relevant markets

- is it sufficient now rely solely upon competition law in at least some telecommunications markets?



‘INTERNATIONAL REGULATORY BEST PRACTICE’ – ITU (Kelly, 2006)

Distancing telecommunications regulation as far as possible from political processes

- stability between regimes
 - strong incentives for ongoing investment
- reduces the likelihood of telecommunications markets being exploited for inefficient wealth expropriation or partisan political gain



2. COMPETITION AND BROADBAND UPTAKE – MED

“ A key reason for poor performance is the lack of effective competition in key market segments. A common factor in the leading OECD countries is the competitiveness of the broadband markets”

Stocktake para 34

“The incumbent broadband provider in New Zealand still has a significant market share, which in 2005 was approximately three quarters of the broadband market”

Stocktake para 34



INTER-MODAL VS INTRA-MODAL COMPETITION – MED

“In New Zealand with our limited cable modem footprint, intra-platform DSL competition is likely to be even more important for increasing broadband take-up and utilisation of advanced broadband services” MED ‘Promoting Competition’ para 4

“The European Regulators’ Group (ERG) states that competition is (mainly) driven by access regulation and is access-based (intra-modal) rather than inter-modal (facility-based/alternative infrastructures)” MED ‘Promoting Competition’ para 4

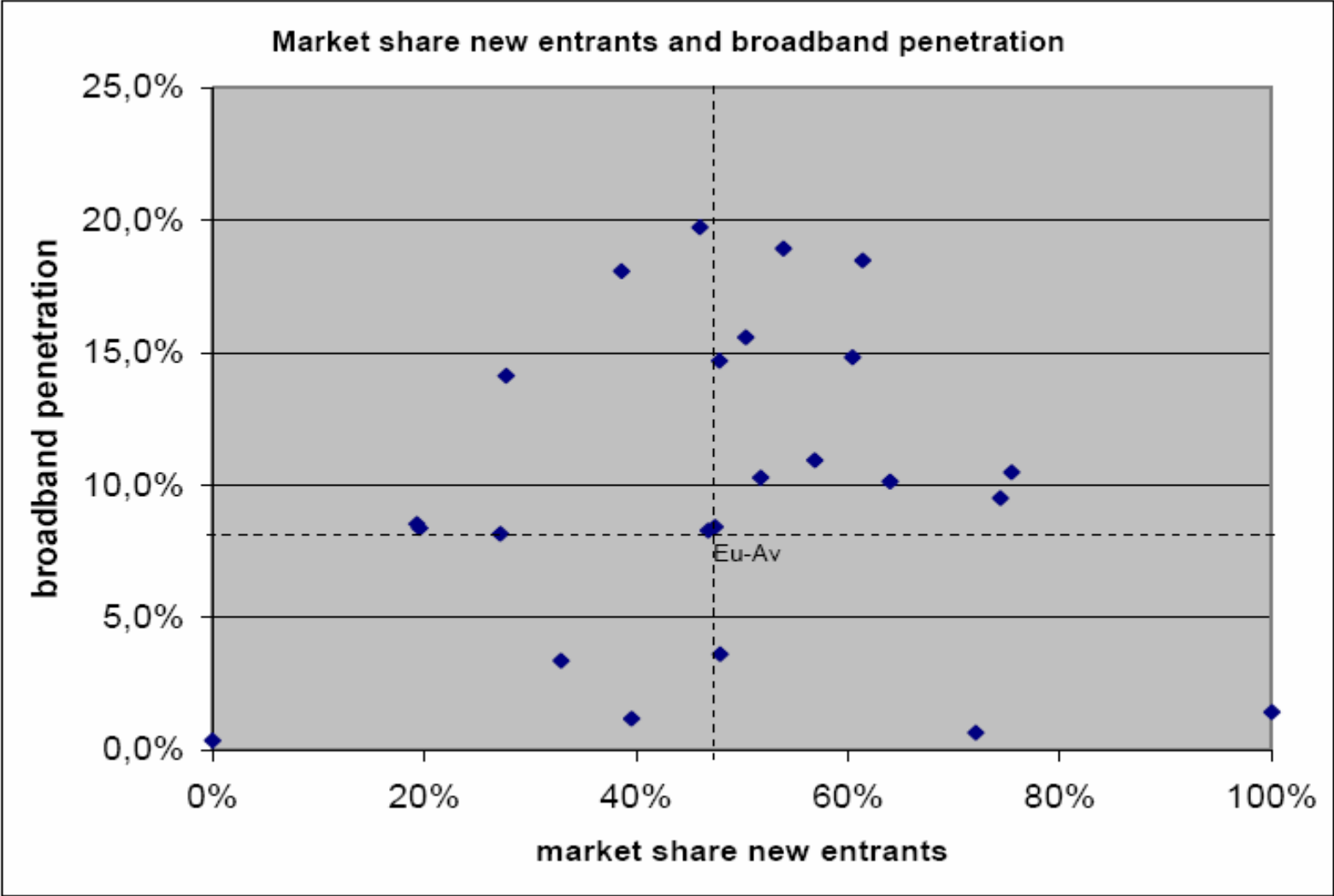
“The ERG notes there is competition from cable operators in some countries, but that does not necessarily mean they are competing”“

MED ‘Promoting Competition’ footnote 5

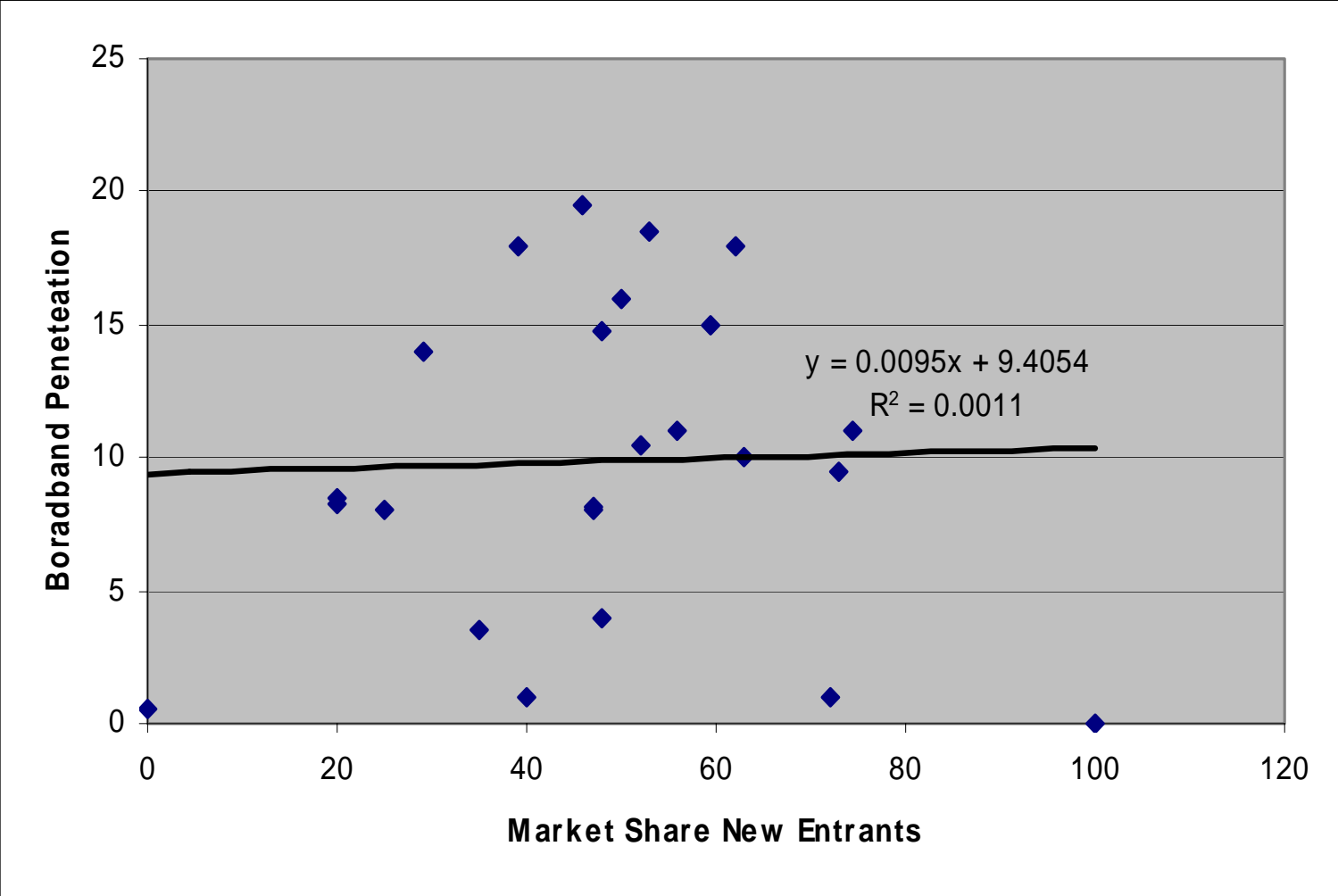


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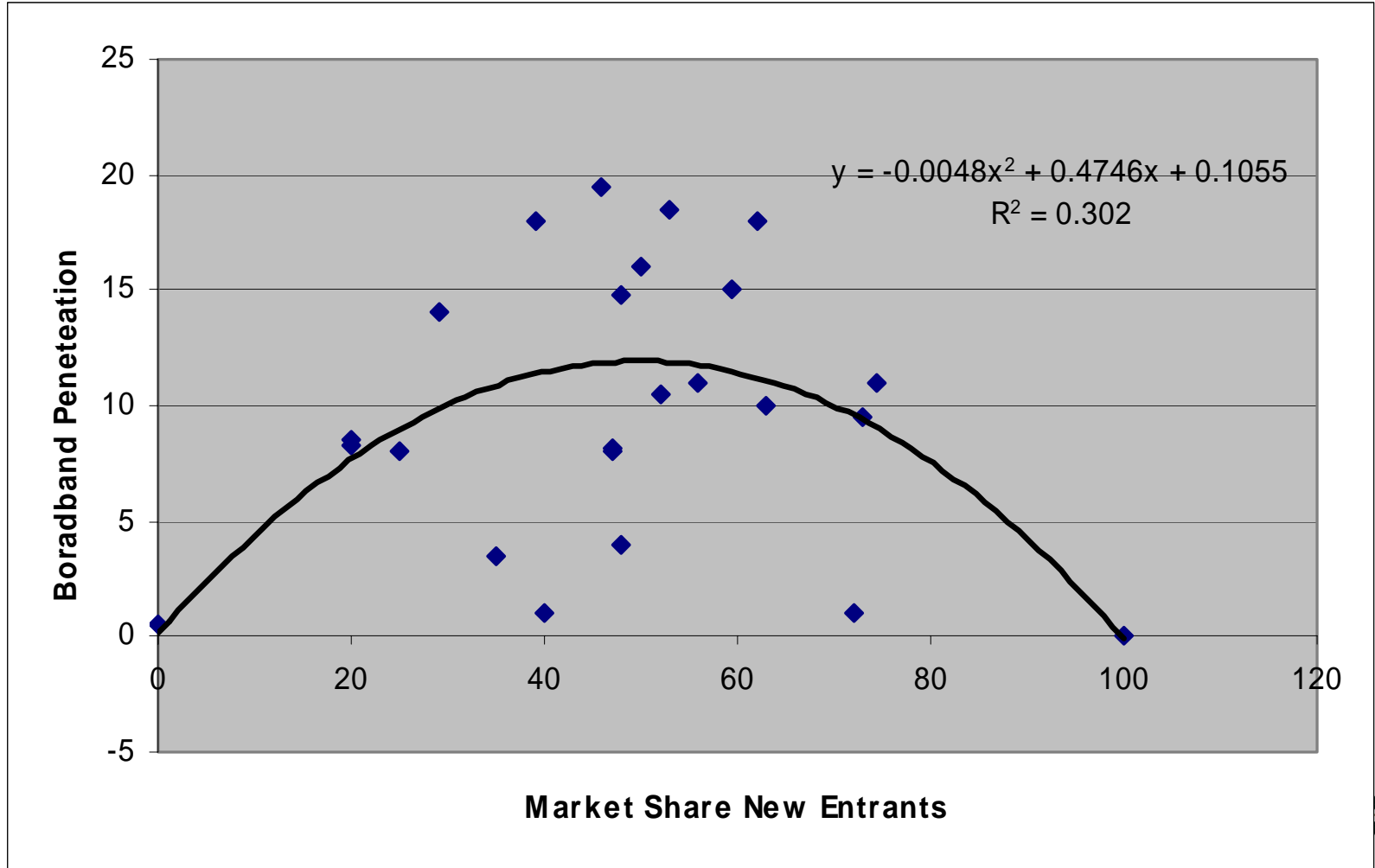
ERG (05) 23 Diagram 1a page 4 (2005)



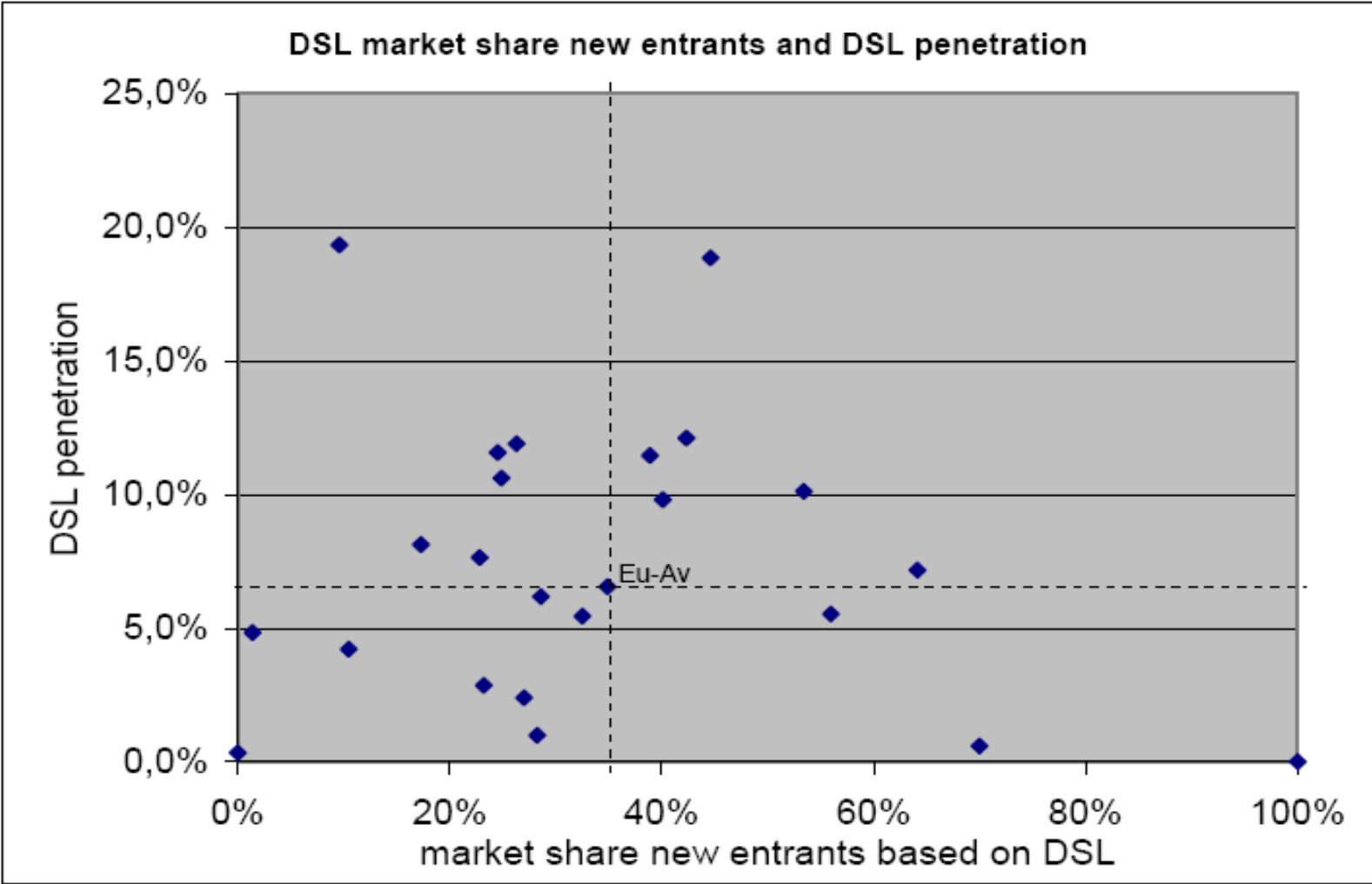
NO STATISTICALLY SIGNIFICANT RELATIONSHIP



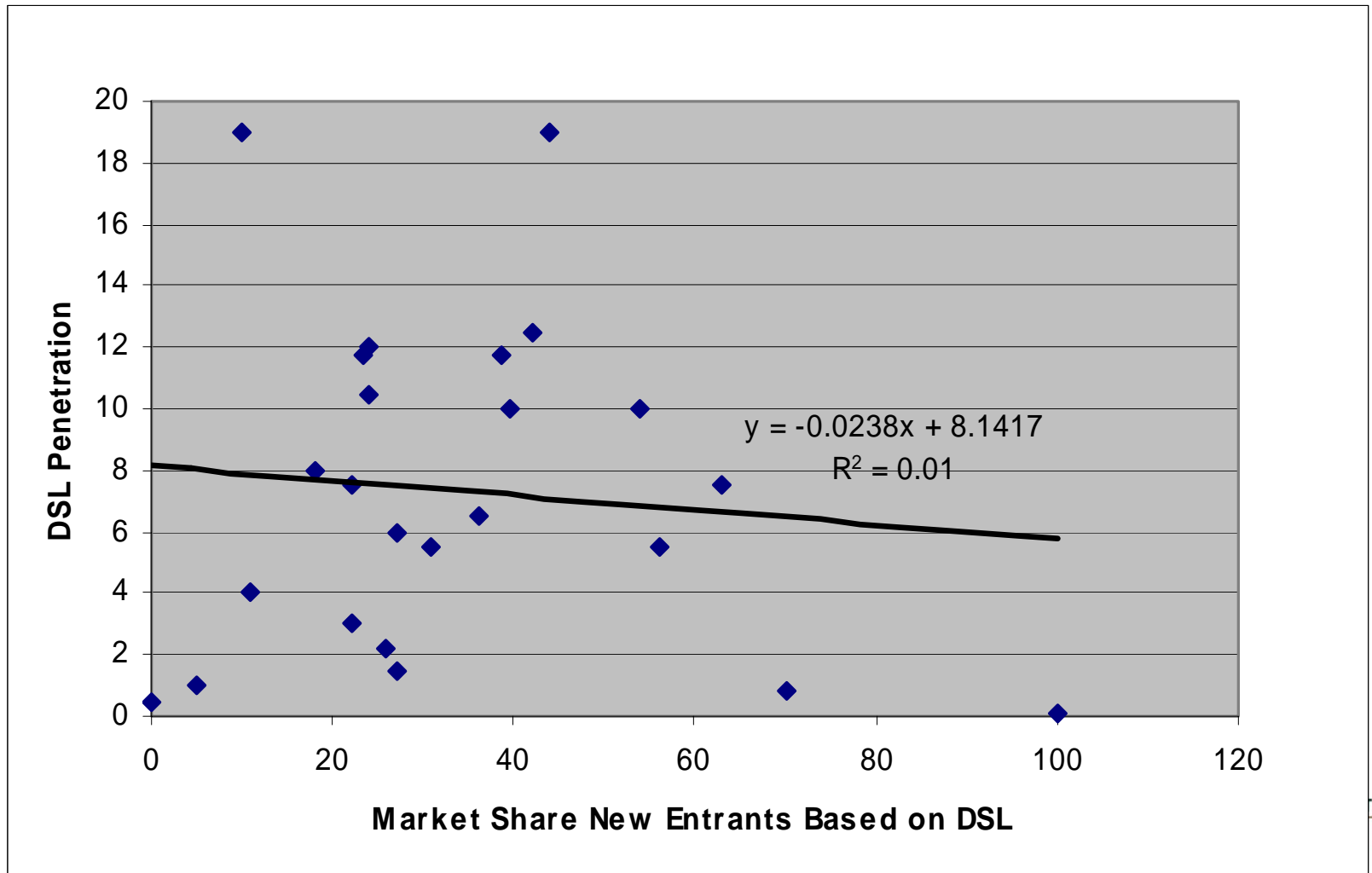
BUT EVIDENCE THAT 'TOO MUCH' ENTRY/COMPETITION MIGHT BE NEGATIVE



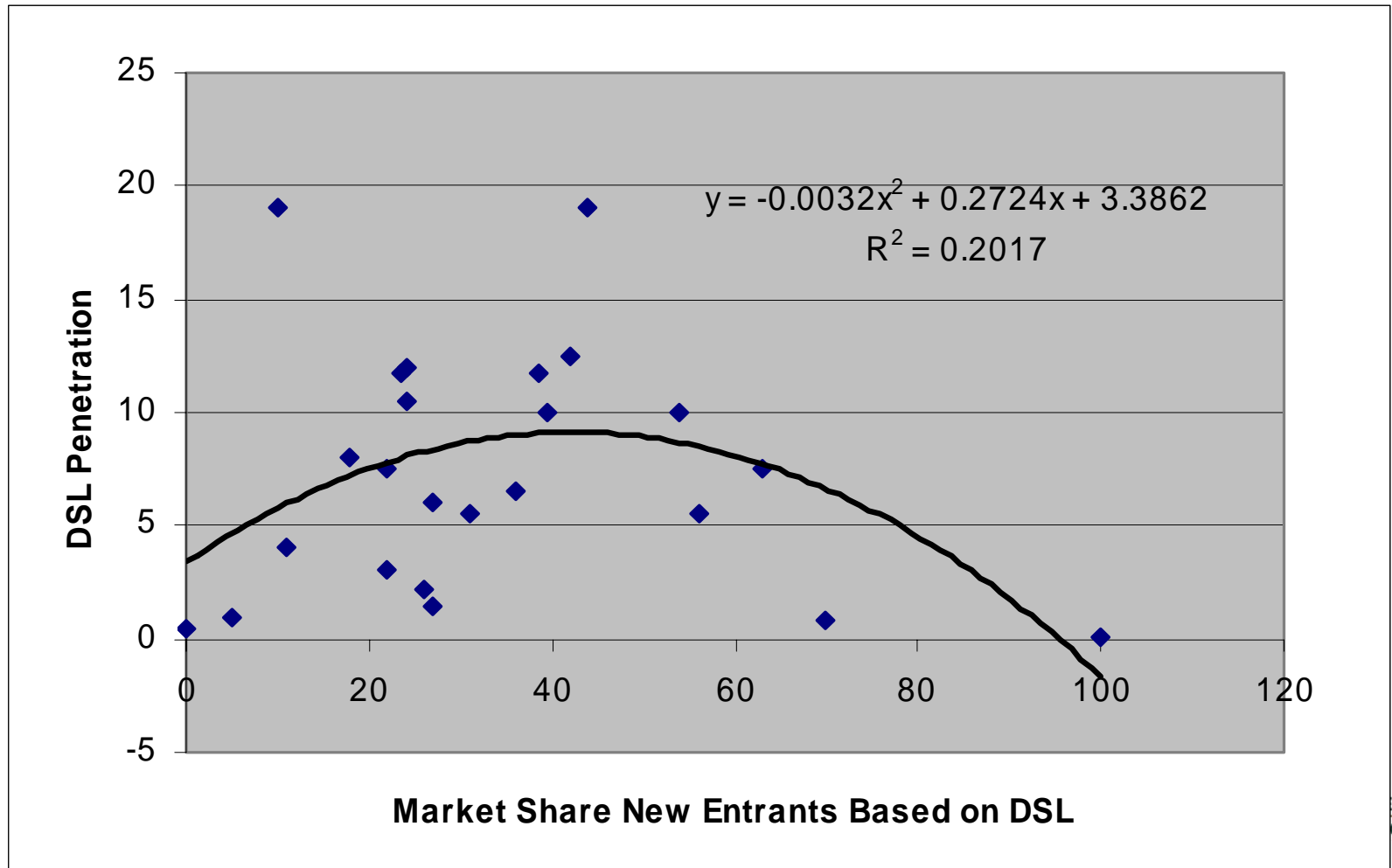
ERG (05) 23 Diagram 1b page 4 (2005)



THE RELATIONSHIP IS *NEGATIVE*, BUT NOT STATISTICALLY SIGNIFICANT

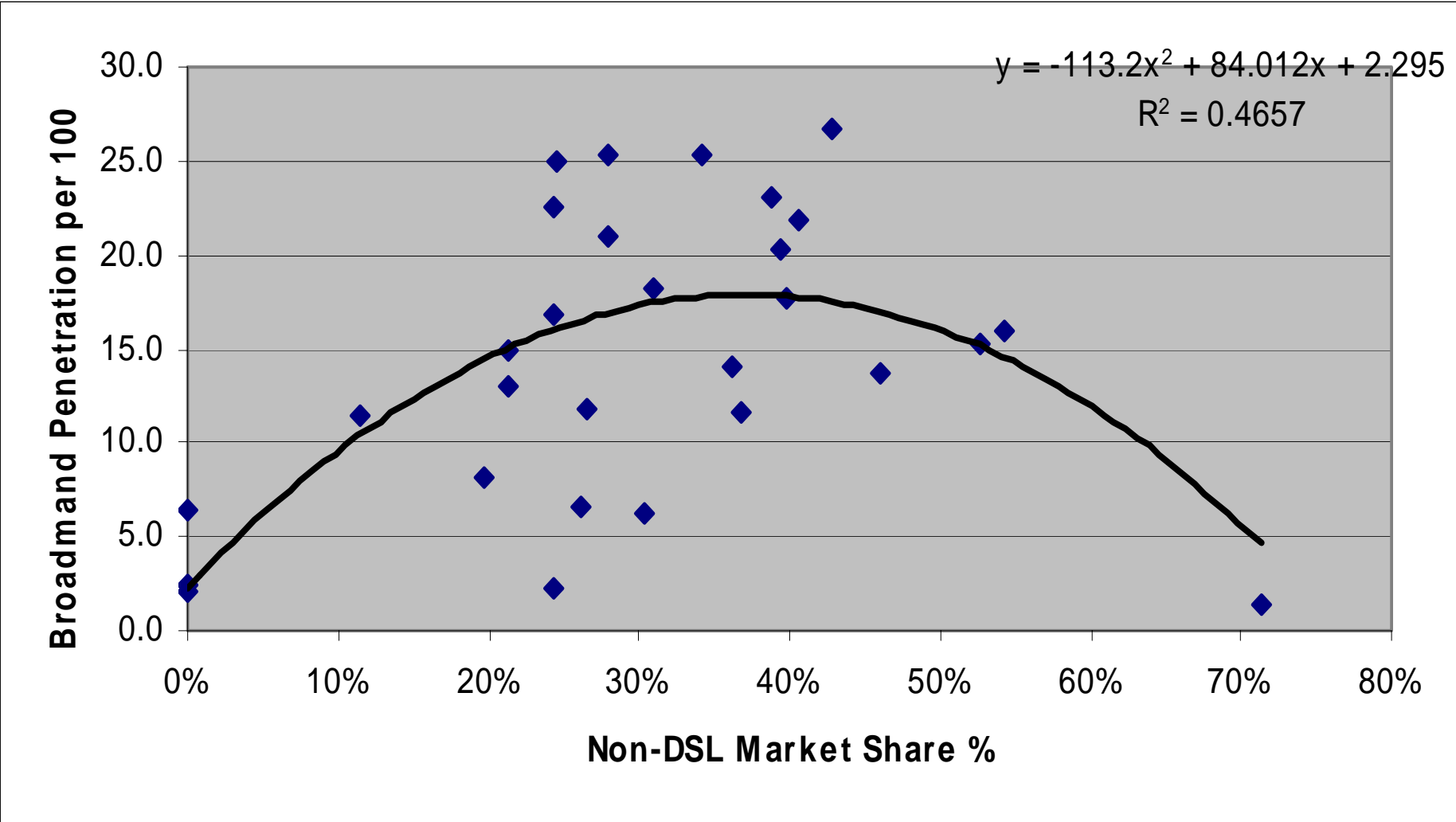


TOO MUCH DSL COMPETITION MAY BE NEGATIVE FOR DSL UPTAKE

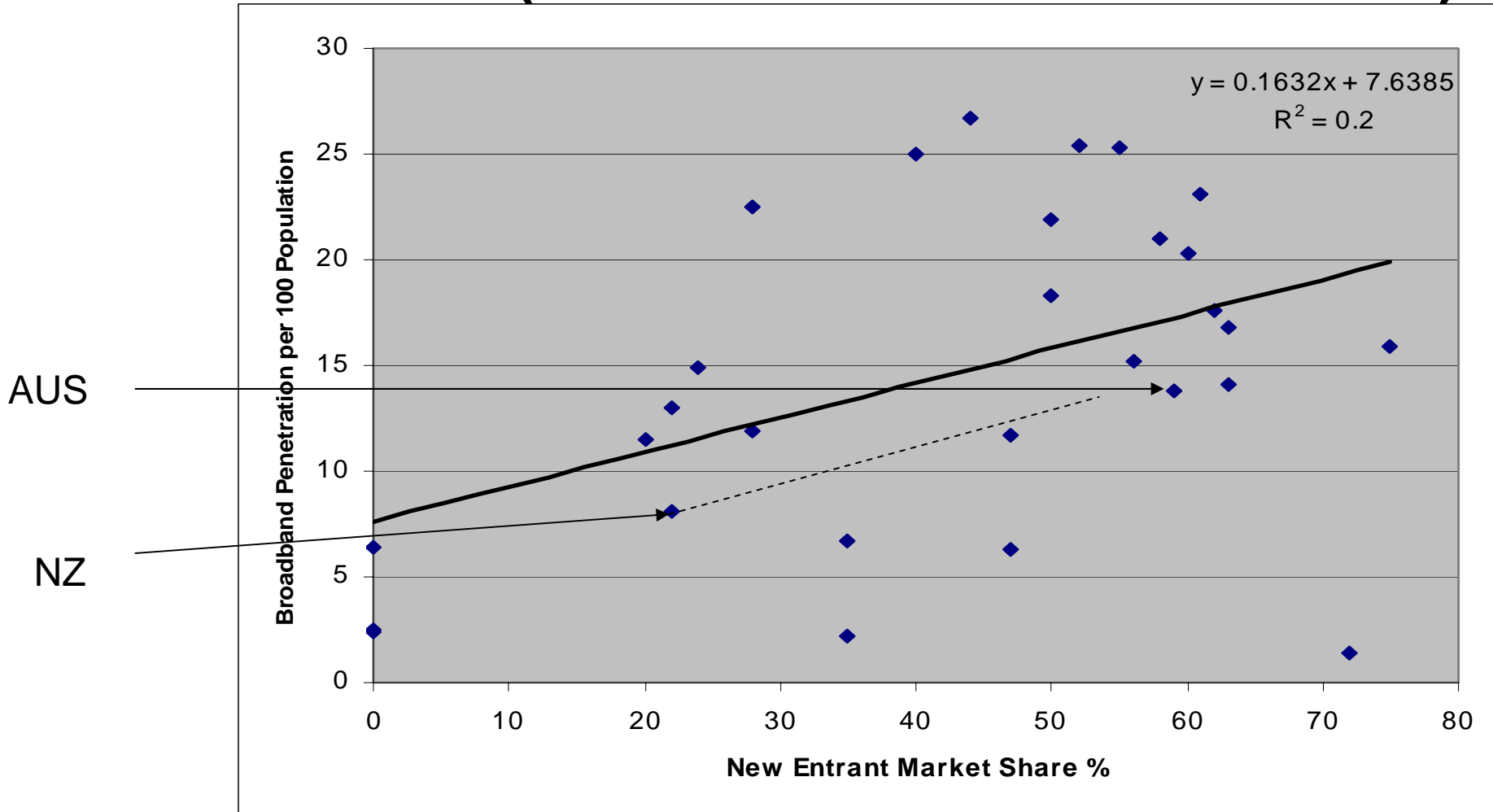


INTER-PLATFORM COMPETITION MATTERS

MOST - OECD (Sept 2005 Broadband data)



INCREASING NEW ENTRANT MARKET SHARE WILL HAVE ONLY A MARGINAL EFFECT ON NZ'S OECD RANKING (NETWORK STRATEGIES DATA)



OECD OFFICIALS' OPINIONS

“The OECD is in no doubt that LLUB has been a major factor in the recent acceleration of broadband uptake across the OECD ... given this the onus probably falls upon advocates of the status quo to explain why New Zealand should not join the prevailing OECD orthodoxy on LLUB”

MFAT cable, para 18

- the policy bodies relied upon by MED (OECD, EU) have published no econometrically robust analyses that support the OECD hypothesis
 - most published academic analyses reject it – see, Wallsten, 2006 for a literature review)
- cannot discount that the rate of broadband diffusion is driven ultimately by factors other than the competitive nature of telephony access markets, and that current diffusion observations simply coincide with increases in the uptake of unbundling
 - although unbundling may explain some small component of the marginal differences in diffusion rates in different markets, its effect is much smaller than other factors



WHAT THE LITERATURE SAYS

MED says:

“Distaso et al suggest tentatively that inter-modal competition more effectively creates competition, while noting that stimulating entry into the DSL segment of the market .. is less problematic than enticing entry into alternative platforms”

MED ‘Promoting Competition’ para 4

Note: this paper is referred to in the ERG (EU) report, and is the solitary academic reference to the relationship between competition and broadband diffusion in the Stocktake papers



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WHAT DISTASO/LUPI/MANENTI ACTUALLY SAYS I

Based on 14 EU countries, 2000-2004

- an oligopoly competition model with differentiated products

“the econometric evidence confirms ... that while inter-platform competition drives broadband adoption, competition in the market for DSL services does not play a significant role”

- the principal, statistically significant finding of the study
- not a ‘tentative’ finding, as claimed by MED

“the level of competition within each technological platform ... is positive but insignificant ... the coefficient is numerically much smaller than the one related to the inter-platform competition index, and very close to zero ... although competition between DSL firms can potentially play an important role in promoting broadband diffusion, this effect seems to be completely overwhelmed by the negative ‘indirect’ effect of increased inter-platform competition induced by promoting entry into the DSL segment of the market”



WHAT DISTASO/LUPI/MANENTI ACTUALLY SAYS II

“while stimulating entry into the DSL segment of the market through appropriate regulatory policies, such as local loop unbundling, is generally less problematic than enticing entry into alternative platforms ... it is still very much unclear which is the most effective way to proceed in order to speed up broadband adoption”

“a general trend toward a more competitive DSL market” is evidenced, (intra-platform competition) but

“in some countries, such as Denmark, Spain, Finland and France, the Herfindahl index for inter-platform competition has actually increased through time, suggesting a worsening of the competitive conditions between platforms”

- suggests competition on DSL is ‘crowding out’ investment in competing platforms???

“the price of narrow band internet access constrains the diffusion (through the price) of broadband access, suggesting that, at least to a certain extent, narrow band and broadband access services are in the same relevant market”

- ‘free’ local calling depresses broadband uptake



A FINDING SUPPORTED BY THEORETICAL AND OTHER EMPIRICAL EVIDENCE

Wallsten, 2006

- literature review – 38 items (12 empirical)
 - GDP per capita, population density most important characteristics
 - mixed evidence on efficacy of all policies used to stimulate uptake
 - only one empirical study (Ford and Spiwak, 2004) finds LLU positive and significant (although a different model on the same data (Aron and Burnstein, 2003) finds LLU uncorrelated)
- empirical study on OECD data
 - methodology controls for differences in population density, GDP per capita, number of telephone lines per capita
 - methodology distinguishes between different types of unbundling
 - unbundling policies have ambiguous effects
 - full llu not consistently correlated with broadband penetration
 - sub-loop unbundling always negatively correlated
 - regulated co-location prices (as opposed to mutual contract) negatively correlated



WALLSTEN'S KEY FINDING

“regulations that can reduce returns to investment (more extensive unbundling) or increase costs to entrants (allowing incumbents to insist on off-site location) reduce broadband investment. In other words, market rules that keep costs low but allow firms to earn returns on investment are good for broadband growth”

- investment incentives for incumbents and entrants matter
- reinforces importance of overall institutional environment rather than specific regulatory policies
 - it cannot be discounted that regulatory environments supporting contractual negotiations over mandated pricing account for the EU's observations of 'more effective access regulations' being correlated with broadband uptake



DENNI & GRUBER (2005)

Different model to D/L/M but very similar conclusions

- logistic model of technology diffusion
- US data 1999-2004
- results indifferent to specification of diffusion as per household, per capita or per fixed telecommunications line

“Intra-platform competition seems to have a positive impact only initially on the rate of diffusion, but then dissipates. For the longer term, inter-platform competition has a much more important role in driving the rate of diffusion”

“In the US ... there is now a trend towards greater emphasis of inter-platform competition in broadband diffusion, in other countries such as the EU, unbundling is still considered as one of the cornerstones of driving broadband diffusion. This may be also because of more limited scope for inter-platform competition, as in several EU countries, cable TV networks are not present or are not capable of delivering broadband services”



3. INVESTMENT INCENTIVES - MED

“OECD views and experience suggest that increased competition at the wholesale level leads to increased investment by incumbents, not less”

Stocktake, para 11

- relies upon reports of MFAT officials’ meeting with OECD officials
- officials accept theoretical grounds for concern in regard to arguments for chilling of incumbent investment incentives
- cite as evidence ongoing investment in Germany despite a moratorium (‘regulatory holiday’) being denied with respect to Next Generation Network investments
- “if there is one area where we think the OECD’s thinking needs further testing, it is over the investment incentives associated with regulated network access. We felt the ICCP’s attitude was somewhat cavalier on this point”

MFAT cable para 19

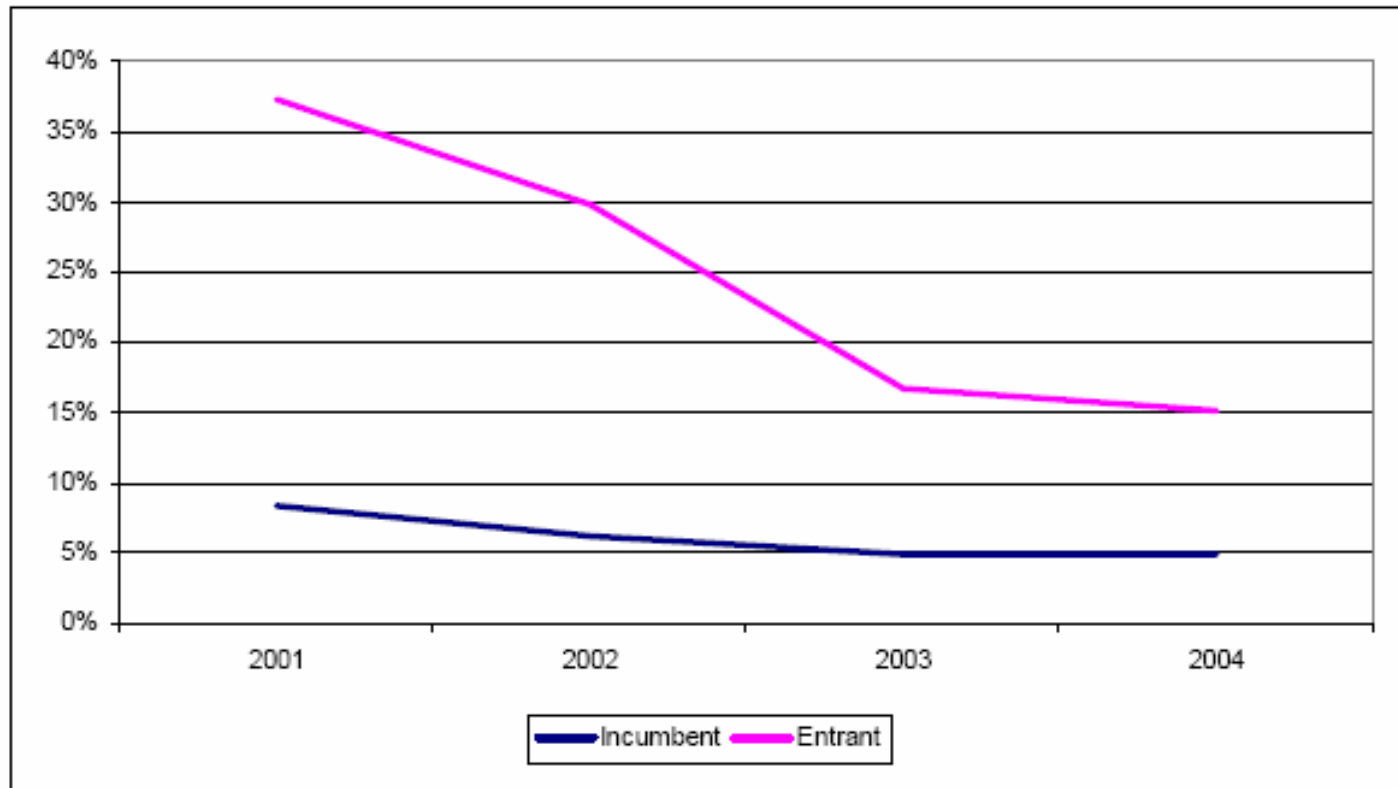


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EU INVESTMENT TRENDS 2001-2004

(London Economics, PricewaterhouseCoopers 2006)

Figure 2.10: Fixed telephony investment by incumbent and new entrant operators expressed as a % of revenues*



INVESTMENT INCENTIVES – EU

(11th Annual Report)

According to the European Commission, available evidence suggests that the regulatory framework has delivered the expected results

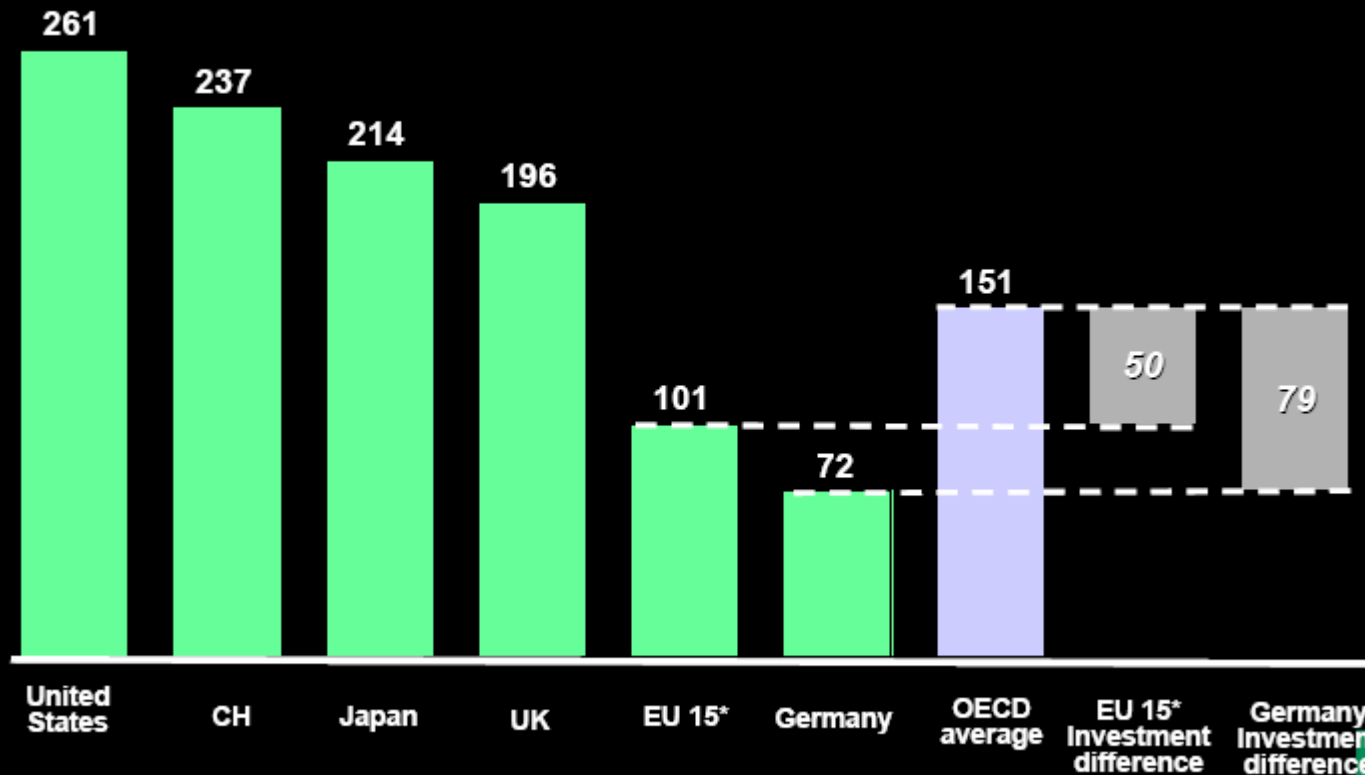
- Broadband lines reached 53 million in 2005 (up from 20 million in 2004)
- “European investment ... in recent years has been as high as, if not higher than, those made in the US and Asia”

Is the EU officials’ position justified?



ACTUAL INVESTMENT UNDER LLU - EU AND REST OF WORLD (Renda, 2006)

Average annual per capita investments in telecommunications infrastructure, 1997-2003
EUR per capita per year



*Escluso UK

Fonte: OECD, McKinsey



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INVESTMENT – MED II

- “More recently (i.e. post 2003), there is evidence that Telecom’s fixed telecommunications service infrastructure investment levels have been on a par with comparable OECD countries, in the face of increased regulatory pressure”**
- “In this period (post 2003), Telecom’s investment in replacing its residential telephone service exchanges has slipped by a year or more from its originally announced plan”**

Has regulatory intervention already affected Telecom’s investment plans?

- e.g. prioritising investment in meeting bitstream obligations and enhanced DSL over investments in the NGN
- the role of uncertainty



INVESTMENT AND REGULATION IN THE EU

London Economics and PricewaterhouseCoopers 2006

Regression model predicting investment levels

Uses OECD 'Regulatory Index' as a measure of regulatory 'quality'

“The regulatory index variable is positive but significant only at the 13% level” (collinearity of firms' assets and regulatory index an issue)– p 50

“The magnitude of this effect may be low compared to other factors” (GDP, population, land area, country & company size)

- “countries' GDP per capita has a positive impact on the levels of investment. In particular, a 1% increase in GDP per capita would lead to a 0.7% increase in the level of investment. The country's area also has a positive and significant impact, but not density” p 49
 - if investment increases drive broadband uptake, then higher GDP per capita drives broadband uptake via this mechanism
 - supports contention that NZ's small land area and small GDP per capita matter more w.r.t. broadband uptake than the regulatory environment



THE 2003 PROCESS

Has failed to surface all the relevant information to populate a detailed cost-benefit analysis

Has not identified the considerable level of doubt in academic analysis surrounding the accuracy of statements and policy positions advanced by regulators and policy agencies

The level of analysis and undertaken appears to fall far short of that required in other regimes

- e.g. no cost-benefit analysis, standards of transparency and accountability are less clear

Is it wise to proceed with the legislation as proposed?

- ‘reasonable doubt’ still exists

