



sapere
research group

Internet usage and New Zealand productivity: improved take-up for improved prosperity?

Presentation to the Productivity Commission

Symposium

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Outline

- Background
- Does the internet make a difference to the economy
- What is not the issue
- What is the issue
- What could be done about it

Background

- Law, commercial strategy and public policy, especially in telecommunications
- Consulting economist with Sapere Research Group
- Three interesting things:
 - Use of internet to drive economic performance (especially for periphery countries)
 - Uptake of fibre in developed markets
 - Telecommunications policy in emerging economies
- Plus a sideline in
 - Connectivity for rural and remote customers

Important concepts

ICT sector includes

- Provision of internet access services
- Software and content

Digital economy includes

- Use of internet services (regardless of sector or industry)

Related

- High-tech sector
- ICT-intensive industries

“

[New Zealand] is a laboratory in which political and social experiments are every day made for the information and instruction of the older countries of the world.

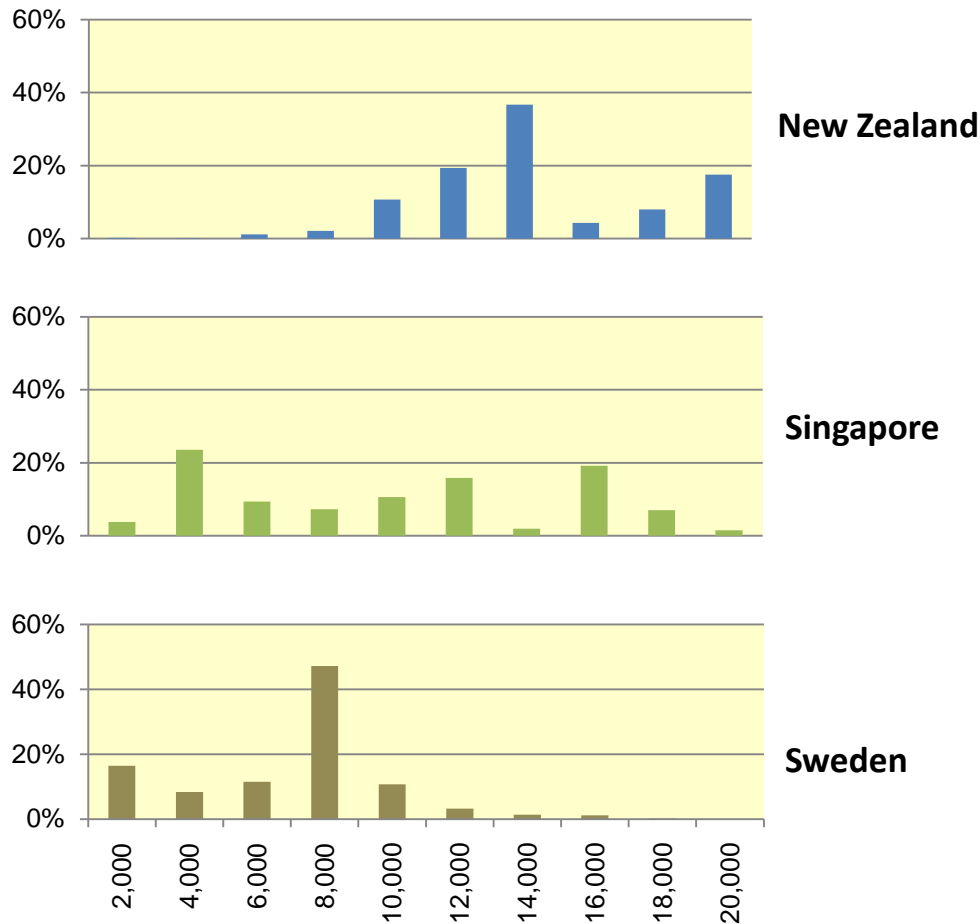
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Asquith, 1st Earl of Oxford

1900

New Zealand: far

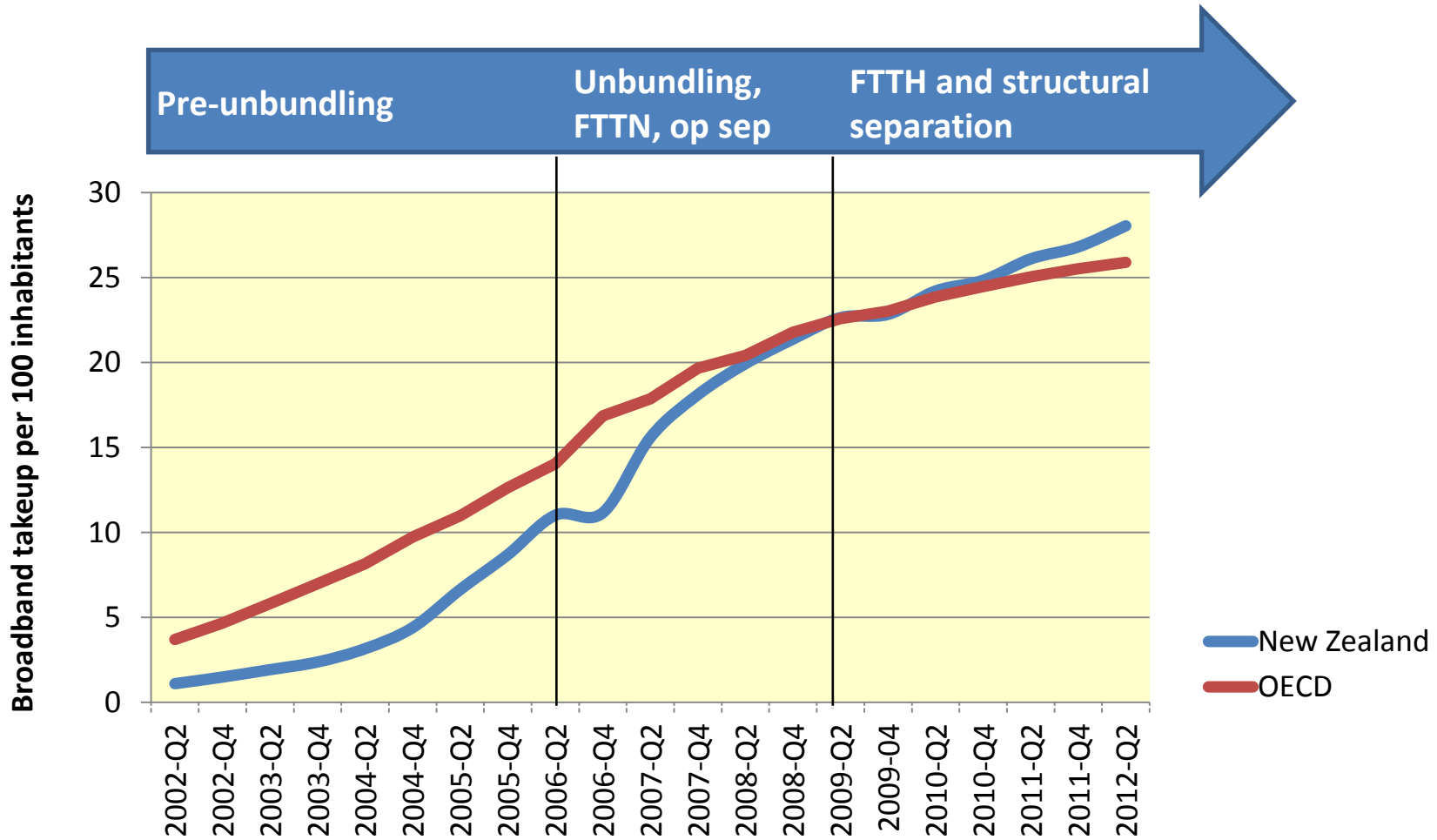
Percentage of World GDP in each distance band from country



Sources: IMF, Wikipedia, Sapere analysis

Can the internet improve the relative productivity of peripheral economies

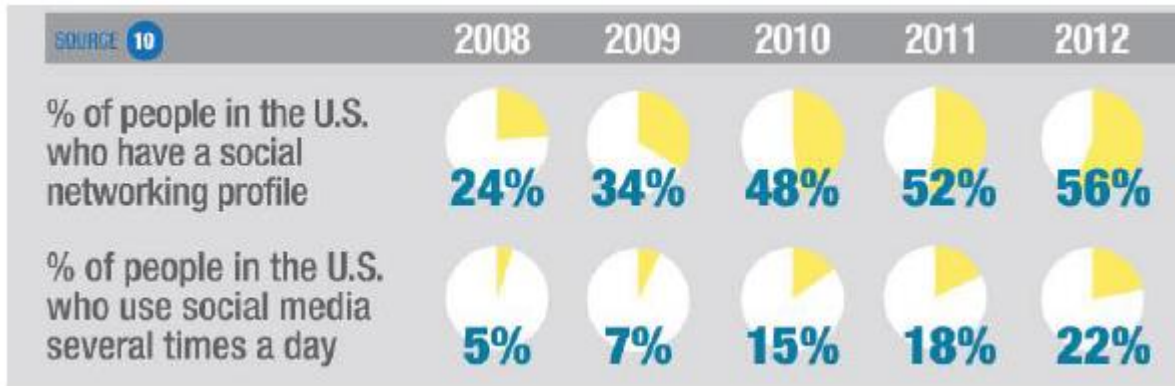
We must think the internet is important ...



Sources: OECD, Sapere analysis

... the internet is important in meat world

US participation in social media



Source: Mashable

... not just to update your Facebook status

Colecchia and Schreyer (2002)	ICTs contributed 0.2 to 0.5 percentage points per year to economic growth (nine chosen OECD countries over 20 years). Particularly strong impact during the second half of the 1990s
Oulton (2010)	Main boost to growth generally comes not from ICT production but from ICT use (OECD countries)
Koutroumpis (2009)	A one percentage point increase in broadband penetration raises growth by 0.025 percentage points (OECD countries)
Gruber and Koutroumpis (2011)	A one percentage point increase in mobile penetration raises growth by 0.2 percentage points (192 countries over the period from 1990-2007)
McKinsey Global Institute (2011)	SMEs using web technologies grew more than twice as fast as those with minimal use of web technologies, and twice as much revenue through exports as a percentage of total sales (survey of SMEs)

.. and it seems to show up in the statistics

Table 1 Labour productivity growth by sector for selected time periods
annual average growth rate (%)

	Measured sector	Primary sector	Goods-producing sector	Services sector	ICT-intensive industries
1978-1985	1.8	2.3	2.2	0.6	2.5
1985-1990	2.7	6.8	1.8	1.5	0.5
1990-2000	2.6	4.6	1.5	2.1	3.3
2000-2008	1.3	1.3	0.6	1.7	2.0
2008-2011*	0.5	1.3	0.8	0.1	1.0
<i>1978-2011</i>	1.9	3.3	1.4	1.4	2.2

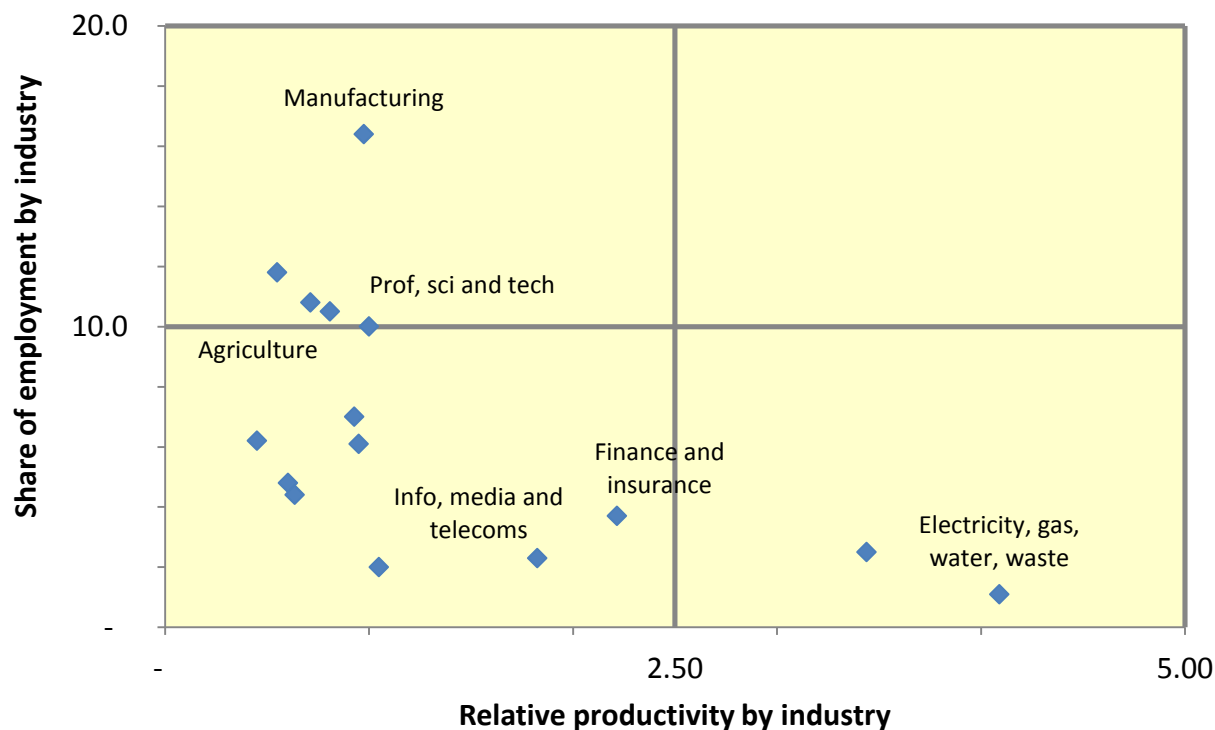
Source: Conway and Meehan, "Productivity by the numbers"

Why the internet helps business growth

- BCG (2012)
 - Geographic expansion: compete across a global market place
 - Enhanced marketing: greater reach and larger audiences, improved business data gathering and planning
 - Improved customer interactions: real-time interaction with customers and improved targeting
 - Use of Cloud services: access to sophisticated services and tools
 - Improved staff recruitment: recruit from a global talent pool

There is room to grow high-productivity industries

Share of employment and productivity by industry (excluding Mining)



Source: Conway and Meehan, Sapere analysis

Reasons why this won't happen anyway

- × Wrong policy framework
- × Infrastructure not good enough
- × Prices too high
- × Takeup too low
- ✓ Use not productive

The policy framework is not the issue

Table 2: New Zealand's NRI in context

Country	Year				
	2008-2009	2009-10	2010-2011	2012	2013
Finland	6	6	3	3	1
Singapore	4	2	2	2	2
Sweden	2	1	1	1	3
United Kingdom	15	13	15	10	7
United States	3	5	5	8	9
Australia	14	16	17	17	18
New Zealand	22	19	18	14	20
Italy	45	48	51	48	50
Romania	58	59	65	67	75
Guyana	100	100	100	90	100
Burundi	131	129	137	137	144

Source: World Economic Forum

Infrastructure is not the issue

Urban

"The government is committed to partnering with the private sector to accelerate the roll-out of ultra-fast broadband services to 75 percent of New Zealanders within the next ten years"

16 September 2009

Rural

"As a result of this plan we are confirming today, 97% of households will have access to broadband services of at least 5Mbps; with the remainder reaching at least 1Mbps."

16 March 2010

Pricing is not the issue

Comparative prices for fibre versus copper

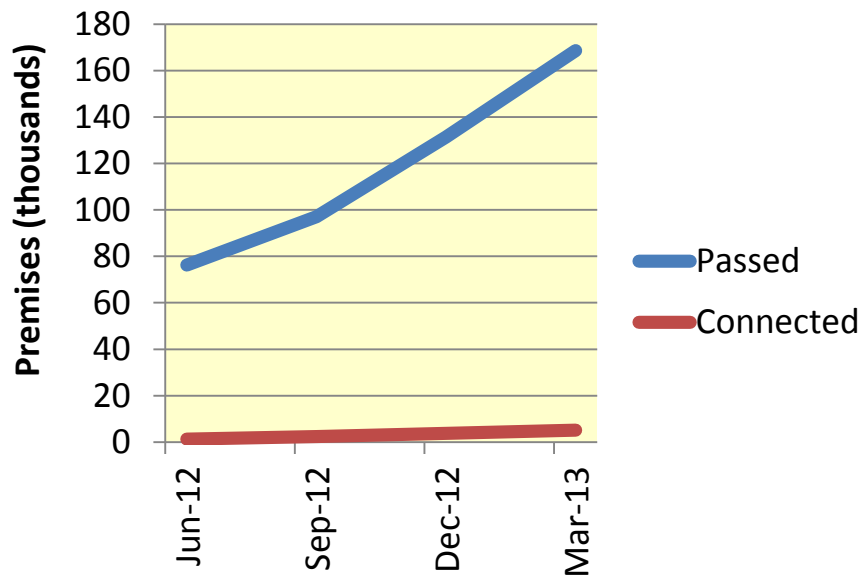
Fibre bitstream	Copper bitstream (with phone)	Copper bitstream (no phone)	LLU over copper
\$38	*\$65	*\$41	\$20

Sources: Chorus, Commerce Commission

* The Commerce Commission is considering the price of copper bitstream at present and has proposed a reduction to \$53/\$29 for with/without phone service

Take-up is not the issue

Fibre takeup so far



Source: Crown Fibre Holdings

As at March 2013

Passed	169k
Connected	5k
Percentage	3%

Use by business is the issue (1)

Businesses happily use the internet ...

Using the internet	96%
For finance	90%
To obtain government information	72%
For sharing information internally	49%
Making orders online	77%

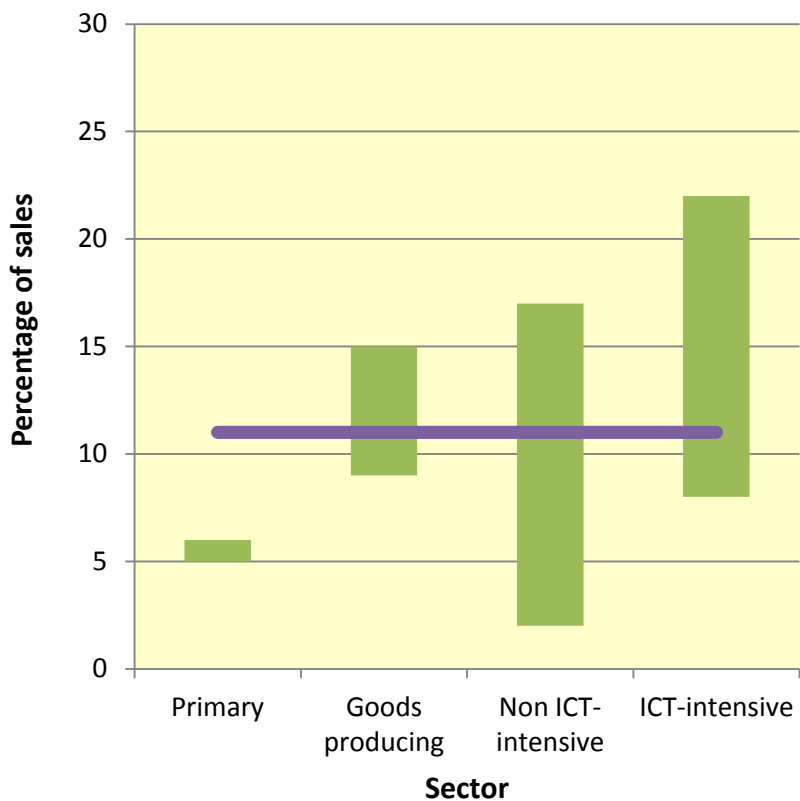
... but transformation is some distance away

Have a website	69%
Online ordering via website	19%
Online payment via website	12%

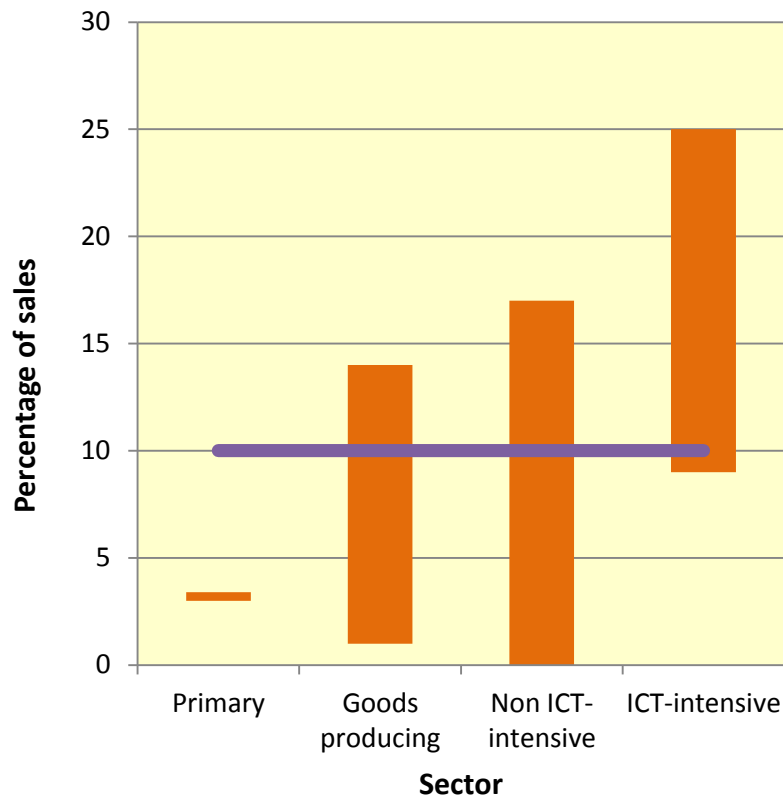
Source: Statistics New Zealand Business Operations Survey 2012

Use by business is the issue (2)

Internet sales more than ten percent



Internet sales overseas



Source: Statistics New Zealand Business Operations Survey 2012

What to do

- Increase commercial use of broadband
- Encourage growth in ICT products and services made in New Zealand
- Connect more effectively with the world (not in an infrastructure sense)
- Make ICT a prominent part of economic strategy

My thesis

- Smart use of the internet by New Zealand businesses can improve our productivity and boost our relative prosperity
- One policy issue worthy of serious attention is effective business use of the internet
- Changing things is difficult and likely to take a long time
- So we had best get started

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If you are interested in how peripheral economics can take advantage of the internet

<http://themoxiesessions.co.nz>

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