ANNUAL TELECOMMUNICATIONS MONITORING REPORT 2010

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INTRODUCTION

This is the Commerce Commission’s fourth annual report on New Zealand's telecommunications market and covers the 2010 year. It has been prepared under section 9A of the Telecommunications Act (2001), which requires the Commission to monitor and report on competition and the performance of telecommunications markets in New Zealand.

The annual report is intended to provide a source of reference information for New Zealand's telecommunications sector, informing a wide audience including industry, policy makers, analysts and consumers of telecommunications services. It contains current and historical market data and provides analysis of the state of New Zealand’s broadband, fixed and mobile telephony markets.

The report contains data and analysis from various sources, but is principally assembled from responses to the Commissions 2009/10 Telecommunications Industry Questionnaire. This questionnaire provides data for the year ending 30 June 2010. The Commission would like to thank operators who have submitted data for this report and look forward to their continued co-operation. The Commission intends to make summaries of the data sets used in the preparation of this report available shortly after the report is published.

The sections on the fixed and mobile markets are relatively detailed and we assume that the reader has some technical knowledge of the industry.

KEY MARKET TRENDS AND OBSERVATIONS FOR 2010

Overview

Competition continues to erode Telecom's share of industry revenues but at a smaller rate than the loss of retail customers. The commission estimates Telecom's share of total industry revenue is now around 56%, a loss of a little over one percentage point in the past year.

The broadband market continues to grow with fixed line broadband penetration increasing to 25 per 100 of population. An estimated 61% of households now have fixed line broadband.

Total investment in telecommunications remains high but slightly lower than last year. Fixed line investment increased slightly while mobile investment decreased 65%, due to the completion of mobile network deployments in the previous year.

Mobile voice usage increased by 5% but remains low at 29% of call minutes compared 47% in the UK and 59% in Ireland.

Total telecommunications retail revenues fell slightly. Mobile revenues were flat, there was a continuing fall in revenue for fixed voice services, while broadband revenue increased by 16% from the previous year.

Most prices apart from line rental continue to fall and the quality of broadband service continues to improve.

Total Industry Metrics	2005/06	2006/07	2007/08	2008/09	2009/10	Dec-10
Total telecommunications retail revenue ($bn) [a]	4.92	4.90	4.88	4.88	4.85	-
Reported total wholesale revenue ($bn)[b]	-	-	-	0.94	1.01	-
Total Telecommunications Investment (bn)	0.92	1.07	1.18	1.69	1.55	-
Average monthly household telecommunications spend ($)[c]		126	-	-	145	-

[a] Other telecommunications revenue has been omitted from first three years in series and from fixed line revenue in subsequent years

[b] Reporting started in 2008/09. Revised to removed international transit revenue and miscoded retail revenue

[c] Data published every 3 years; includes expenditure on pay TV only when packaged with telecommunication services

Fixed Line -Retail

Total fixed broadband connections in New Zealand have more than doubled in nearly five years from 0.48 million to 1.09 million broadband connections.

New Zealand's relative performance for average broadband speed appears to be on a par with Australia and Singapore. The report notes that some improvements have been achieved.

Fixed line retail revenues continue to decline, particularly calling revenues which fell from $1billion in 2005/6 to $720 million in 2009/10. The growth in internet access revenues has helped to offset the reduction in calling revenues.

Fixed line calling prices have declined, with national and fixed-to-mobile showing the largest decline over time. The price reductions and falling volumes reflect the declining retail voice revenues noted above.

Fixed Line –Wholesale

New Zealand's unbundling growth rate compares favorably in the initial period but has fallen behind recently. Cabinetisation is likely to be a major factor responsible for this decline.

Wholesale Broadband connections (excluding UCLL) have more than tripled in five years from 100,000 to 342,000.

Fixed Line Metrics	2005/06	2006/07	2007/08	2008/09	2009/10	Dec-10
Fixed lines (mil)	1.85	1.85	1.88	1.87	1.88	1.88
Total fixed broadband connections (mil)	0.48	0.68	0.85	0.98	1.05[d]	1.09
Fixed line broadband connections per 100 pop	11.6	16.3	19.8	22.8	24.5	25
Number of unbundled lines (000's)	-	-	3	37	67	76
Resold Telecom phone lines (000's)	-	168	262	326	374	402
Wholesale broadband connections (excl UCLL) (000's)	100	165	251	285	312	342
Chargeable fixed voice call minutes (bn)	7.29	6.91	6.71	6.67	6.29	-
Non-chargeable fixed voice call minutes (bn)	-	-	5.31	5.06	4.65	-
Total fixed line retail revenues ($bn)	2.99	2.93	2.9	2.83	2.81	-
Telecom NZ share of fixed line retail revenues (%)	80	79	78	76	73	-

[d] This measure no longer includes fixed wireless subscribers

Mobile - Retail

Off net pricing remains high and as a result on-net calling and SMS traffic dominates in New Zealand.

2degrees was successful in winning 8% market share by subscriber but had a much lower share of voice traffic with 100% of subscribers being prepaid.[1]

Mobile voice traffic per subscriber in New Zealand still remains amongst the lowest in the world with New Zealanders making an average of 79 minutes of voice calls per month compared to 120 in Australia and 198 in the UK.

Mobile voice call minutes increased year on year from 4.44bn from 4.24bn minutes but voice revenue remained static.

Mobile data revenue continues to be dominated by SMS , but mobile broadband is growing at a faster rate as the penetration of smart phones and mobile tablet devices like iPads increases.

Mobile - Wholesale

Demand for number portability has grown since 2degrees entered the market indicating a growing churn rate between carriers and an indicator of more effective competition. The number of mobile numbers ported went from 2,000 to 6,000 pre August 2009 when 2degrees launched to between 8,000 and 18,000 per month since.

Mobile Metrics	2005/06	2006/07	2007/08	2008/09	2009/10	Dec-10
Mobile connections (mil)	3.8	4.25	4.58	4.7	4.7[e]	-
Active mobile connections per 100 population	92	102	108	109	108	-
Share mobile pre-paid (%)	68.2	67.8	67.6	66.1	67.7	-
Mobile voice call minutes (bn)	2.76	3.17	3.66	4.24	4.44	-
SMS messages sent (bn)				11.4	12.7	-
Total mobile retail revenues ($bn)	1.93	1.97	1.98	2.05	2.05	-

[e] This is now connections active in the last 90 days rather than six months as was previously used

[1] Figures are as at 30 June 2009 and 2degrees launched postpaid services in September 2010.

MARKET OVERVIEW

This section gives an overview of the telecommunications market, and is structured as follows:

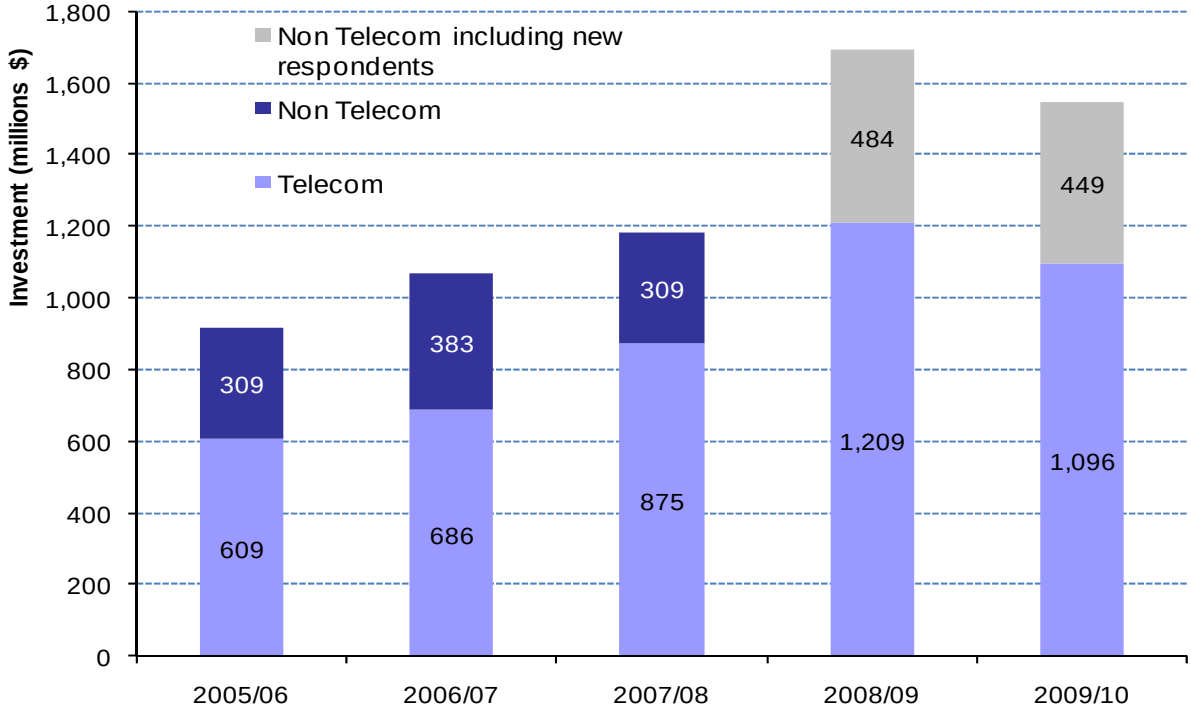
- investment and recent investment initiatives
- fixed line and mobile comparisons
- call volumes
- total industry revenues

Investment in Telecommunications Markets

Overall, investment has grown substantially since 2005/06. The fall over the past year was due to completion of major investment projects.

Figure 1 below shows that total annual investment in telecommunications markets increased from $917 million in 2005/06 to $1.693 billion in 2008/09 before falling back somewhat in 2009/10 to $1.542 billion.

Figure 1: Telecommunications Investment



Source: Commerce Commission

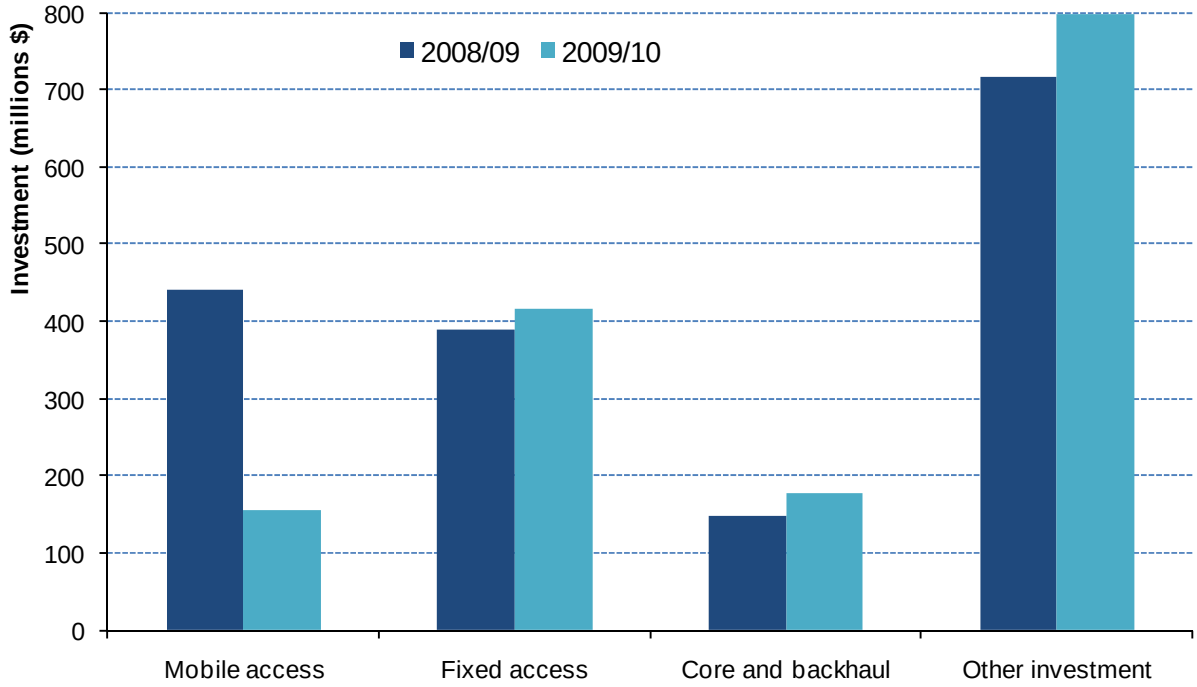
Figure 2 indicates the fall in investment in 2009/10 was due to lower investment in mobile access networks. Investment is often uneven and mobile access investment fell after the completion of

Telecom's new 3G XT network and the first stage of 2degrees' network. All other categories of investment increased.

Telecom was the largest investor with investment of $1.096 billion. This amounted to 71% of total industry investment, a proportion which was unchanged from the previous year.

In the last two years the Commission asked survey respondents to where possible to identify the components of the telecommunications network where investments have been made (e.g. access, core, backhaul etc). However, a significant share of the investment has not been readily attributable to a particular part of the network, and is likely to be in intangible assets.[2]

Figure 2: Investment breakdown by network component



Source: Commerce Commission

Investment Initiatives

UFB and RBI

As noted last year, the government has committed to invest up to NZ$1.5 billion in Ultra Fast Broadband (UFB). The Government expects that private sector investment will equal or exceed that of the government. Ultra fast broadband is defined as a fibre-to-the-premise broadband service providing downlink speeds of at least 100 Mbps and uplink speeds of at least 50 Mbps.

[2] For example, Telecom had a large amount of investment in product development and operational separation that it classified as "Other telecommunications investment". The Commission tried adding a separate category for investment in IT systems in 2009/10 but this did little to reduce the large amount of investment classified as other. 'Other investment' including investment in IT systems made up half of all investment in 2009/10.

The UFB initiative will change the structure of New Zealand's telecommunications industry. In the year under review negotiations with interested parties continued.

Another key industry development is the Rural Broadband Initiative (RBI) where the government's objectives are to:

- connect 97% of schools to fibre, enabling speeds of at least 100 Mbps, with the remaining three per cent to achieve speeds of at least 10 Mbps ("the rural schools objective")
- improve coverage of fast broadband services so that 97% of New Zealand households and enterprises are able to access broadband services of 5 Mbps or better, with the remaining 3% to achieve speeds of at least 1 Mbps ("the rural community objective").

The government has finalised negotiations with Telecom and Vodafone for delivery the RBI at a cost of $285 million. Telecom proposes to take responsibility for the rural schools objective and the fibre component and Vodafone will take responsibility for providing mobile and fixed wireless broadband to rural communities.

These investments are expected to have a significant effect on telecommunications markets in the medium to long term. The Commission intends to closely monitor the outcomes and the effect on competition.

International Connectivity

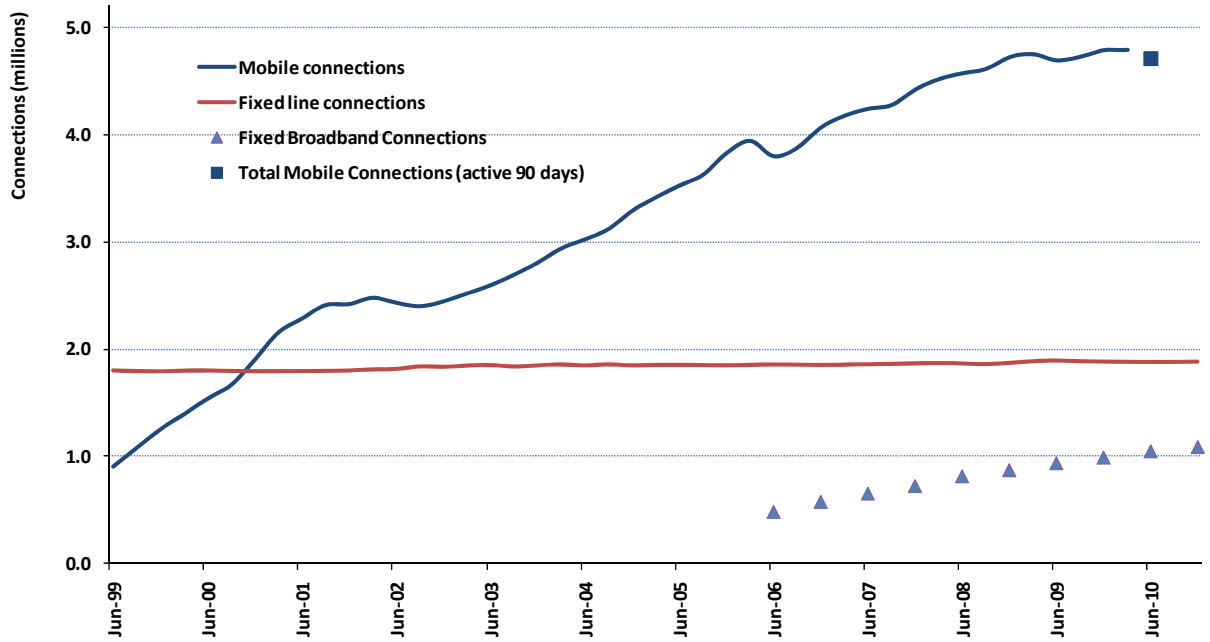
Pacific Fibre is a consortium that is planning to spend approximately $750 million to build an international fibre optic cable linking New Zealand, Australia and the US. This would likely be New Zealand's second international cable and provide competition to the sole current international cable operator Southern Cross Cable.

Kordia is still considering investing in a trans-Tasman cable linking New Zealand and Australia that would also provide competition to Southern Cross Cable.

Fixed Line and Mobile Comparisons

This section looks at the number of consumers using telecommunication networks in New Zealand including mobile networks (Telecom, Vodafone and 2Degrees) and fixed line networks (Telecom and TelstraClear).

Figure 3: Mobile Connections, Fixed Line Voice and Broadband Connections



Source: Commerce Commission

As at 30 June 2010 there were approximately 4.7 million mobile connections[3], 1.88 million fixed line connections and 1.05 million fixed broadband connections.

While growth in mobile connections has slowed markedly in recent years, the launch of new devices (tablets) may increase the number of connections.

The number of fixed line connections is relatively stable but has generally continued to grow at very slow rate.

Fixed line broadband connections grew by 10% in 2010 year to reach 1.09 million by 31 December 2010. This gives a broadband penetration rate of approximately 25 connections per 100 of population and it is estimated that 61% of households have broadband connections.

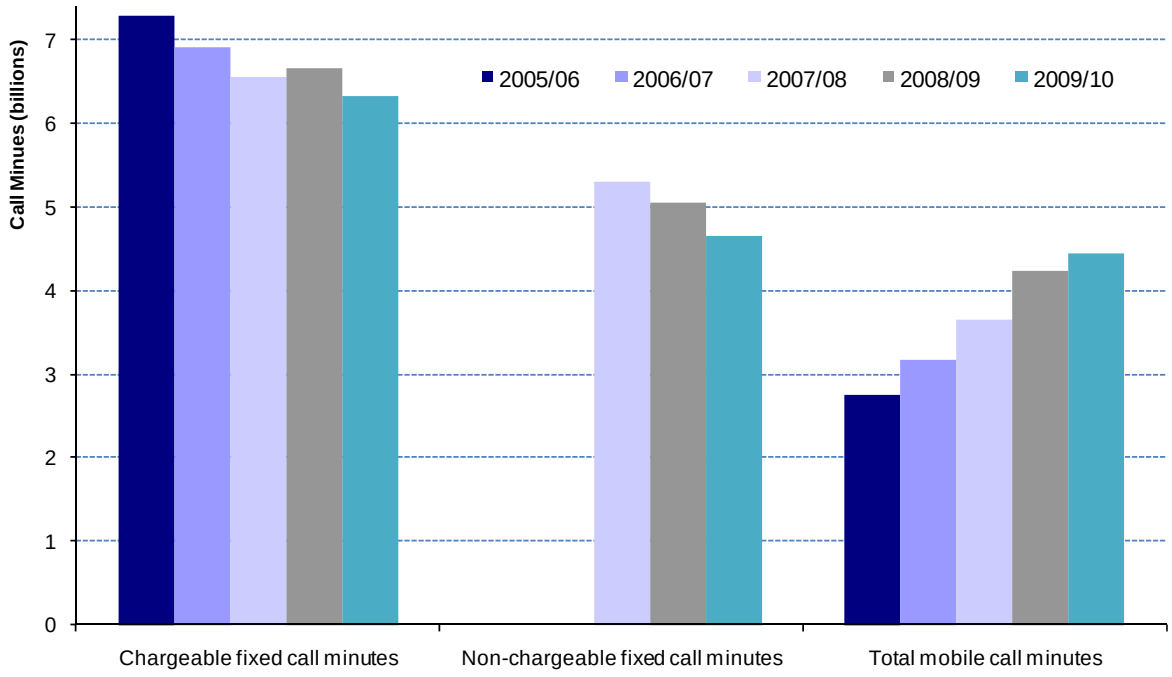
[3] Mobile connections shown in the chart were reported as active within the previous 6 months, but from 30 June 2010 will be reported as active within the previous 90 days.

Call Volumes

Voice remains an important part of telecommunication services. There has been a shift from end-users making calls from their home line to calls from their mobile as mobile connections have grown, although the growth of mobile voice minutes slowed in 2009/10. For the fixed line operators, voice minutes have declined for both chargeable and non-chargeable (free local) calls.

Figure 4 shows total mobile call minutes increased to 4.44 billion for the 2009/10 year while fixed line call minutes continued to decline, with non-chargeable minutes totalling 4.65 billion and chargeable minutes 6.29 billion.

Figure 4: Mobile versus Fixed Line Retail Call Minutes



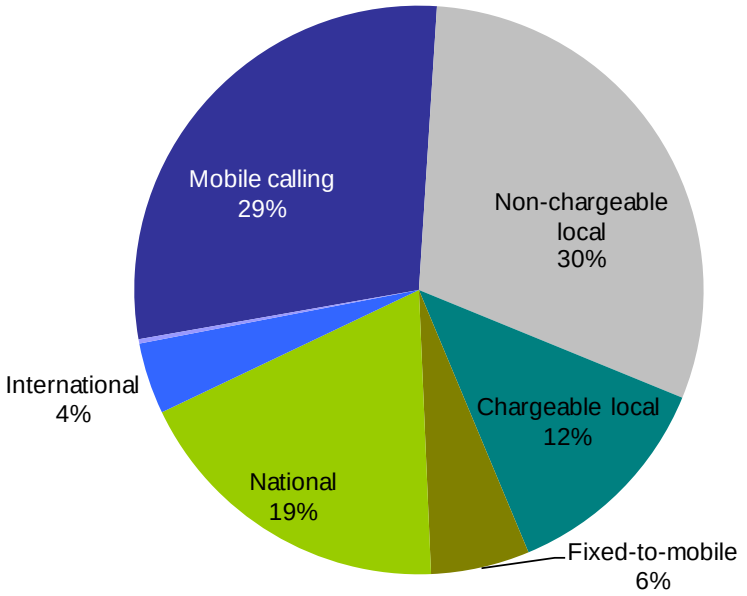
Source: Telecom, Commerce Commission

The proportion of voice call minutes made on mobile phones has continued to increase although the rate of increase slowed in 2009/10 with the proportion increasing to 29% (as shown in Figure 5) from 27% in the prior year. This compares with 47% of call minutes being generated on mobile phones in the UK in the 2009[4] year and 59% in Ireland for the quarter ending 30 June 2010[5].

Non-chargeable local calls still generate the largest amount of call minutes, at 30% of all voice call minutes, just ahead of total mobile voice call minutes. The various categories of chargeable fixed line calls make up the remaining 41% of call minutes.

[4] http://stakeholders.ofcom.org.uk/binaries/research/cmr/753567/UK-telecoms.pdf
[5] http://www.comreg.ie/_fileupload/publications/ComReg1073r.pdf

Figure 5: 2009/10 Calling Volume by Call Type



Source: Commerce Commission

Revenue from Telecommunications Services

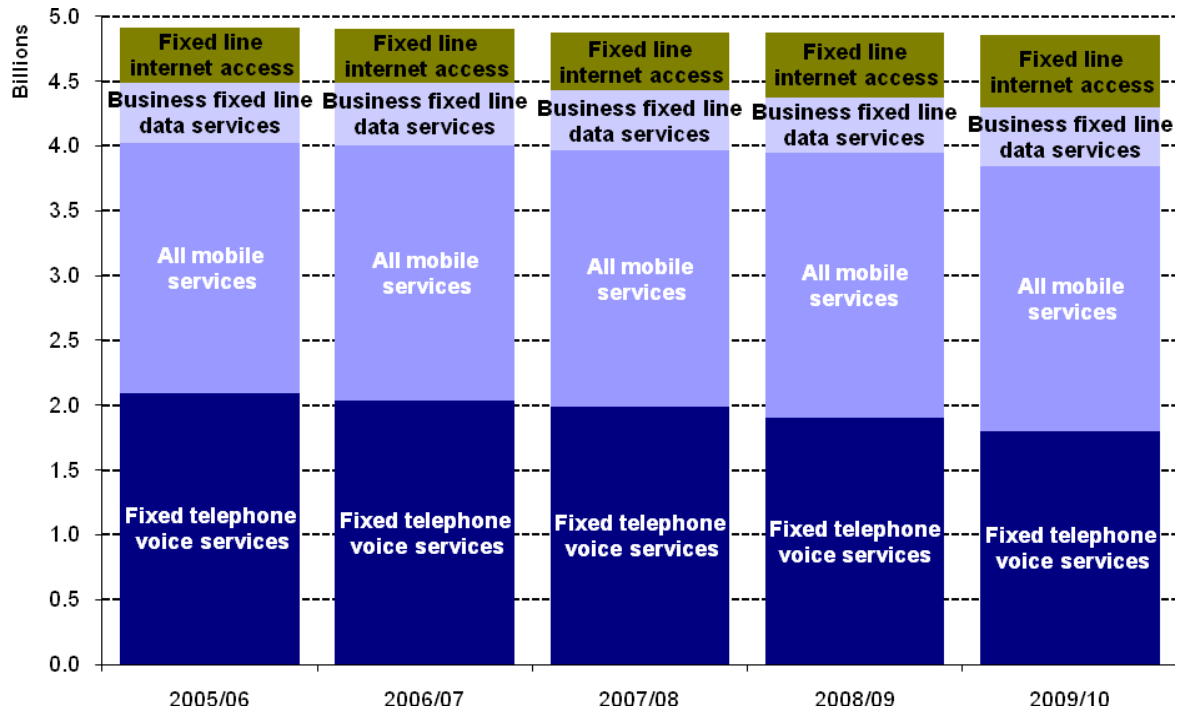
Overall, the telecommunications operators have seen a slight decline in retail revenue, driven by falling revenues from fixed line networks. Revenues from mobile networks have been stable.

Figure 6 shows the total retail revenues from telecommunication services are gradually declining over time. [6] These revenues declined from $4.92 billion in 2005/06 to $4.88 billion in 2008/09, a decline of 0.3% per annum. In the year to 2009/10, the reduction of retail revenues was 0.5% to $4.85 billion.

Declining revenues from fixed line telephone services are responsible for the overall total revenue decline. The reduction in revenue from these services has accelerated over time, with 2005/06 to 2009/10 showing an average decline of 3.6% per annum and a reduction of 5.5% from 2008/09 to 2009/10.

In contrast, mobile retail revenues increased between 2005/06 and 2008/09 and were flat in 2009/10.[7] The revenue from fixed line internet access (which is mostly a residential and small business service) has grown significantly by 7.9% from 2005/06 to 2009/10 and 11.8% in the last year. Revenue from fixed line business data services declined by 8.1% over the four year period, although appeared to rebound and grew by 5.6% in 2009/10 year.

Figure 6: Total Retail Telecommunications Revenues by Service from 2006-2010



Source: Commerce Commission

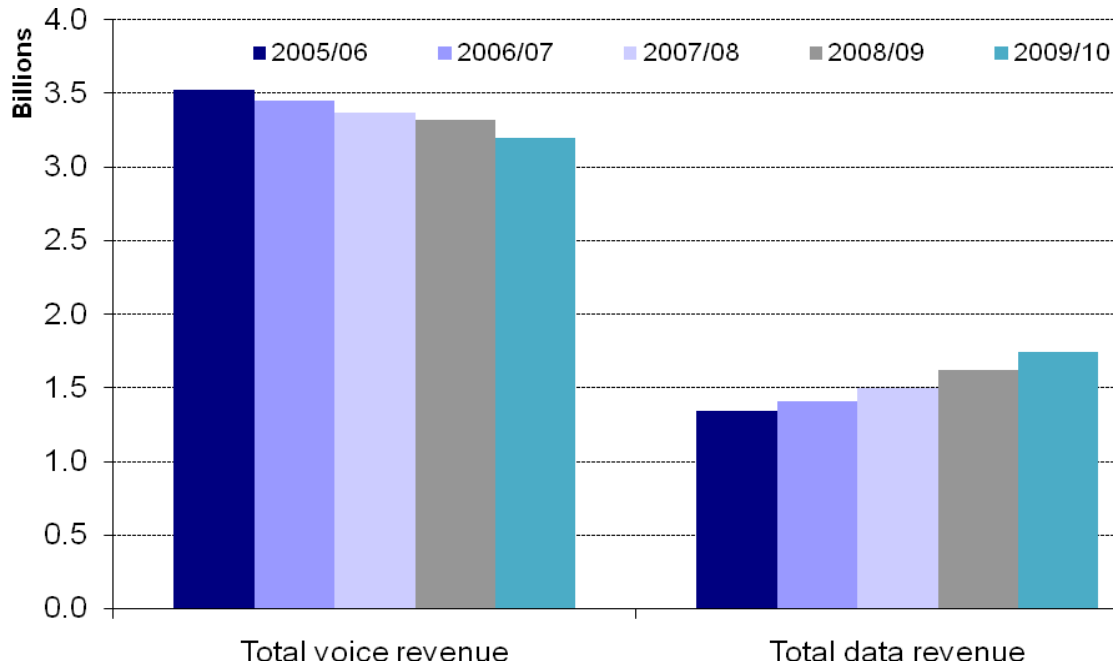
[6] Retail revenues from surveyed providers exclude 'Other telecommunications services revenue' for 2005/06 to 2007/08 and other revenue from fixed line revenue in 2008/09. Wholesale revenue was reported for the first time in 2008/09 and retail revenue of prior years may have inadvertently contained some wholesale revenue.

[7] The reason a drop was incorrectly reported last year was due to some retail revenue being miscoded as wholesale.

Across all telecommunications services, voice revenue still outweighs data revenues. Part of the reason for the continued dominance of voice revenue in the market is that this revenue contains most access costs (such as line rental), without which many data services could not be provided. More than half of all fixed voice lines are also used to provide DSL broadband services. Analysing the time spent on the consumption of such services, internet use is likely to dominate consumption. According to *The Internet in New Zealand 2009*[8], 40% of all internet users spend at least 10 hours a week online. By contrast, residential phone users spend an average of less than two hours a week talking on the phone.

Figure 7 shows the pattern of data revenues (including internet access) growing and voice related revenues falling. For 2009/10 it is estimated there was $3.2 billion of revenue from voice related services and $1.7 billion from data services.

Figure 7: Total Retail Revenue by Voice and Data (Fixed and Mobile)



Source: Commerce Commission

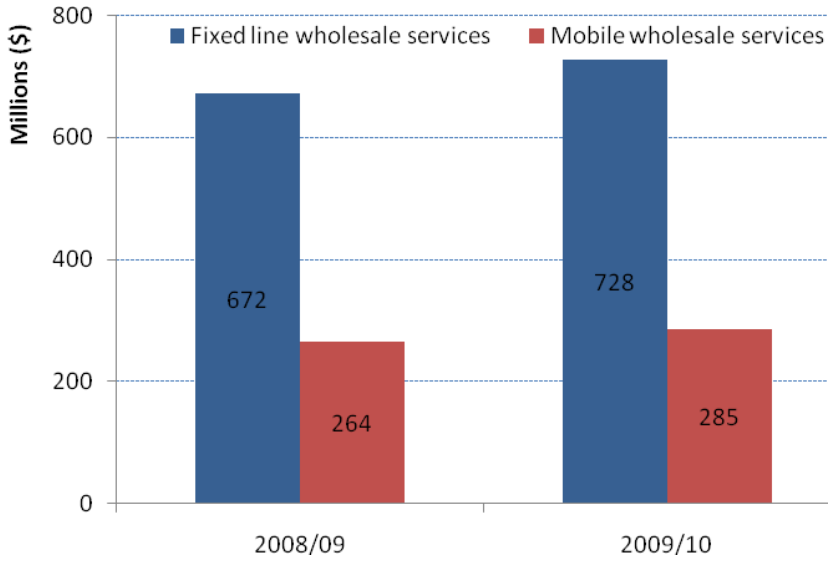
[8] http://www.aut.ac.nz/__data/assets/pdf_file/0006/122829/WIPNZ-2009-Full-Report---Final_Fig-68-fixed.pdf

Total wholesale revenues

Wholesale telecommunications services are provided by companies which operate telecommunications infrastructure, to other companies who may compete with them for end-users. For Telecom, access to key components of its network is mandated by regulation, and as competition increases so does demand for Telecom's wholesale services. Consequently Telecom's loss of fixed line retail revenue and customers to its rivals has been partially offset by increasing wholesale service volumes and revenues.

Surveyed total wholesale revenue was $1.01 billion for 2009/10 and the figure for 2008/09 has been revised down to $936 million to take account of retail revenue and international transit revenue that were incorrectly included. Wholesale revenues increased for both mobile and fixed line services to $285 million and $728 million respectively.

Figure 8: Fixed Line and Mobile Wholesale Revenues



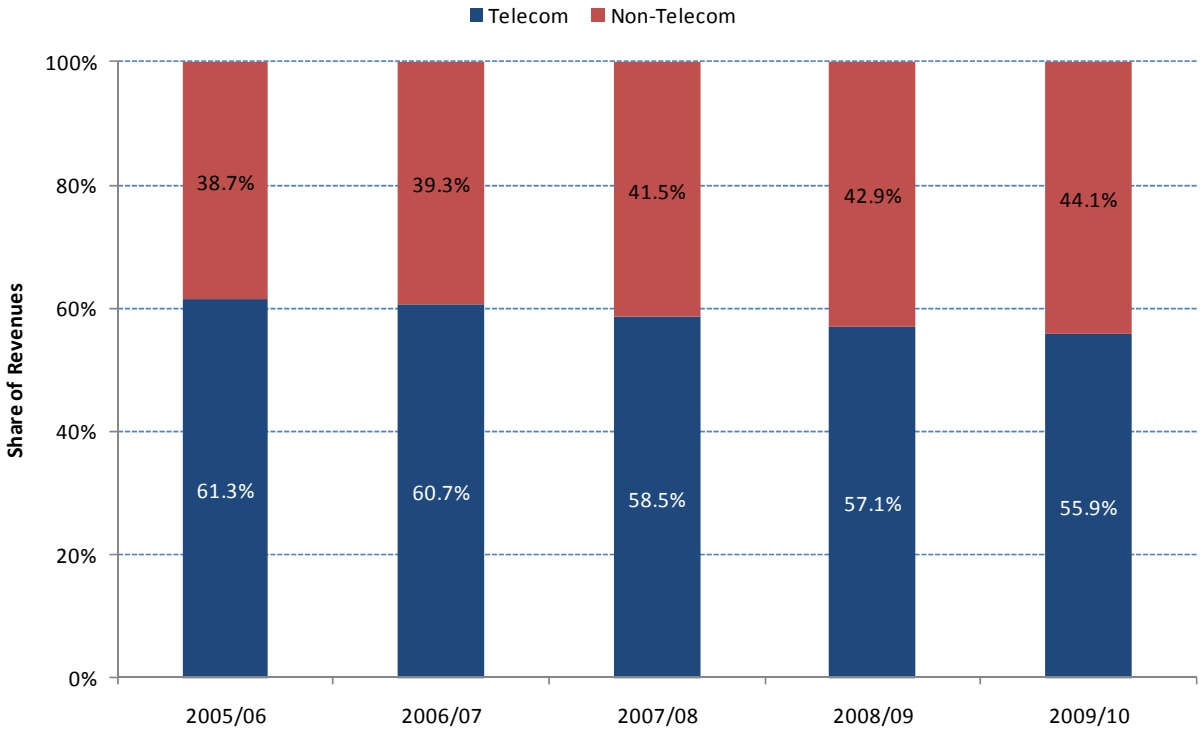
Source: Commerce Commission

Telecom share of total industry revenues

Telecom's overall share of industry revenues has continued to decline. In 2009/10 Telecom's revenue dropped by a little over one percentage point, reflecting the decline in the relative importance of the revenues from its fixed line network and an increase in competition.

Total telecommunications revenues of the surveyed telecommunications providers included wholesale revenues in recent years, and the Commission has included this in calculating Telecom's share of total revenues as shown in Figure 9 below. This shows a gradual reduction of Telecom's revenue share at approximately one percentage point per year from 61.3% in 2005/06 to 55.9% in 2009/10.

Figure 9: Telecom and Non-Telecom Share of Industry Revenues



THE FIXED LINE MARKET

Introduction

This section of the report examines in detail the fixed line market. This section is structured as follows.

- A general overview of the market
- Detailed analysis of the retail voice revenues and call minutes.
- Trends in fixed retail calling prices.
- The changing nature of the retail market with the growth of non Telecom retailers selling voice services.
- The effect of competition and the regulatory regime on revenues.
- Changes in the fixed line data market. This section discusses broadband uptake, unbundling and gives an international comparison of market concentration.
- Broadband quality and how New Zealand compares internationally.

Market Overview

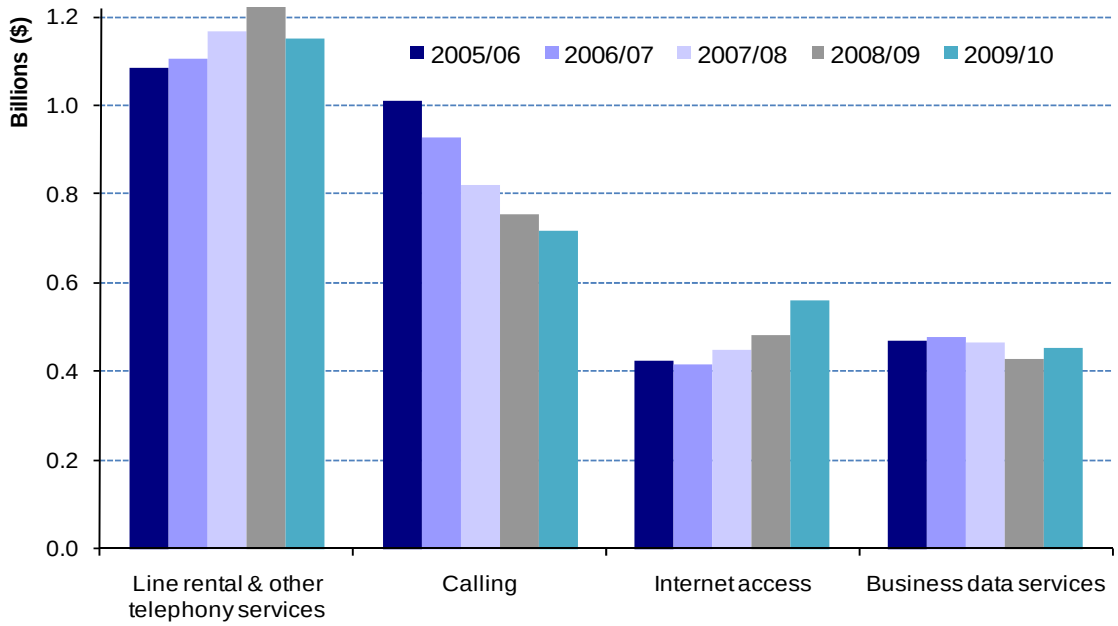
Telecom has a ubiquitous fixed line network in New Zealand and is the dominant provider in the fixed line market, supplying the majority of retail and wholesale fixed line services. TelstraClear has a competing access network in much of Wellington and Christchurch, and uses local loop unbundling and resale to provide fixed line retail services in many other locations around New Zealand.

Other retailers using local loop unbundling to provide voice and broadband services include Vodafone, Orcon, Slingshot/CallPlus and Compass. These retailers also resell Telecom services and have been increasingly bundling their voice and broadband offerings to increase the number of consumers who purchase all their fixed line services from them. Other fixed line retailers reselling Telecom services include WorldxChange and Kinect/TrustPower.[9]

The figure below shows overall revenues accruing to the fixed line networks. This shows a broad picture of declining voice revenues and growing data revenues. Data issues are discussed in the next section of the report.

[9] There are also a number of other very small telecommunications retailers operating in New Zealand.

Figure 10: Fixed Line Retail Revenues



Source: Commerce Commission

Fixed Line Voice

The number of fixed lines has remained stable over the last four years, at approximately 1.9 million. Nearly all these lines are used to provide voice services.

Retail voice revenue

Total fixed line voice revenues (including revenues from related services of line rental and other telephony services) have shown a small decline over the last four years from $2.99 billion to $2.88 billion.

Figure 10 shows the individual components of retail revenue, with line rental and other telephony services revenues increasing (until the fall in the 2009/10 year) together with revenue from internet access (including broadband), helping to offset the steep declines in calling revenues.

Line rental revenue has tended to rise each year as Telecom generally raises its residential line rental by the CPI as it is allowed to under the TSO (formerly Kiwi Share) agreement with the government, and its competitors follow given the wholesale price also rises. In 2009/10, the loss of retail line rental revenue reported by Telecom from the loss of retail customers was not fully offset by gains in reported retail line rental revenue by its competitors.

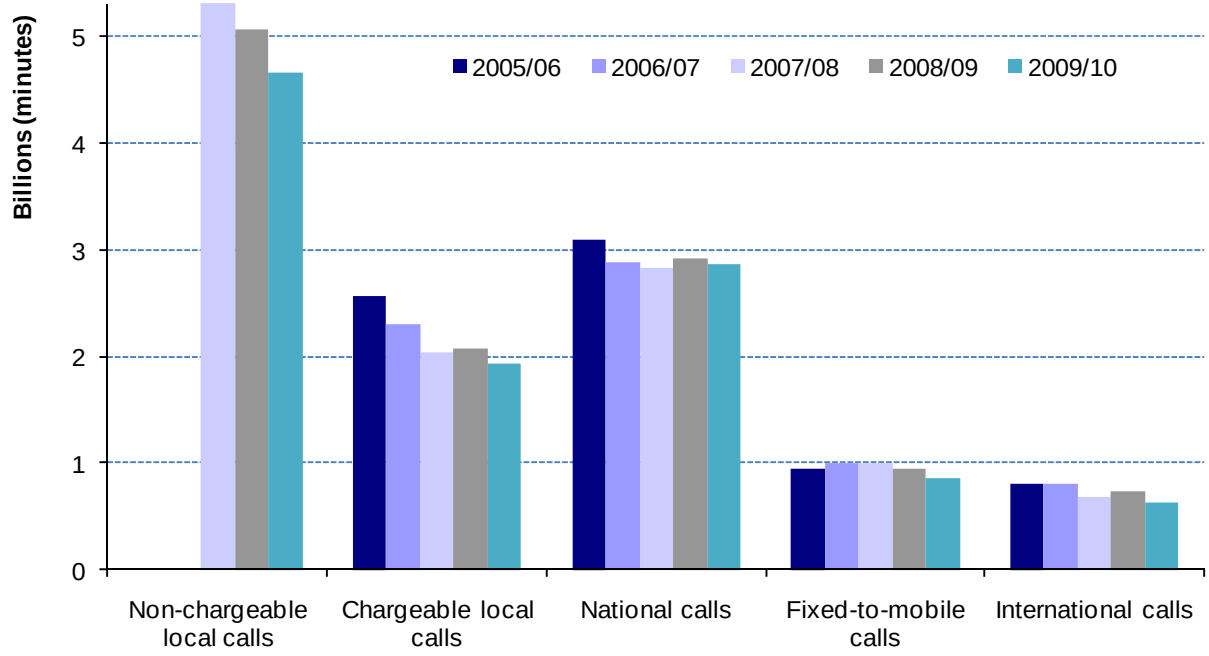
Retail call minutes

Retail call minutes on the fixed line network are in decline. The figure below shows this decline broken down into call types.

Figure 11 shows the differences in the downward trend between call types.[10] Non-chargeable local calls and international calls have the largest declines.

International calling is the most vulnerable to being replaced by services like Skype.[11] The cost of international calling makes lower quality but 'free at the point of use' services attractive to end-users. Skype's on-net international traffic was estimated to have grown by 70% to around 100 billion minutes in 2010 while conventional international phone traffic grew by 4% to 413 billion minutes.[12]

Figure 11: Fixed Line Retail Call Minutes



Source: Commerce Commission

Average retail call prices

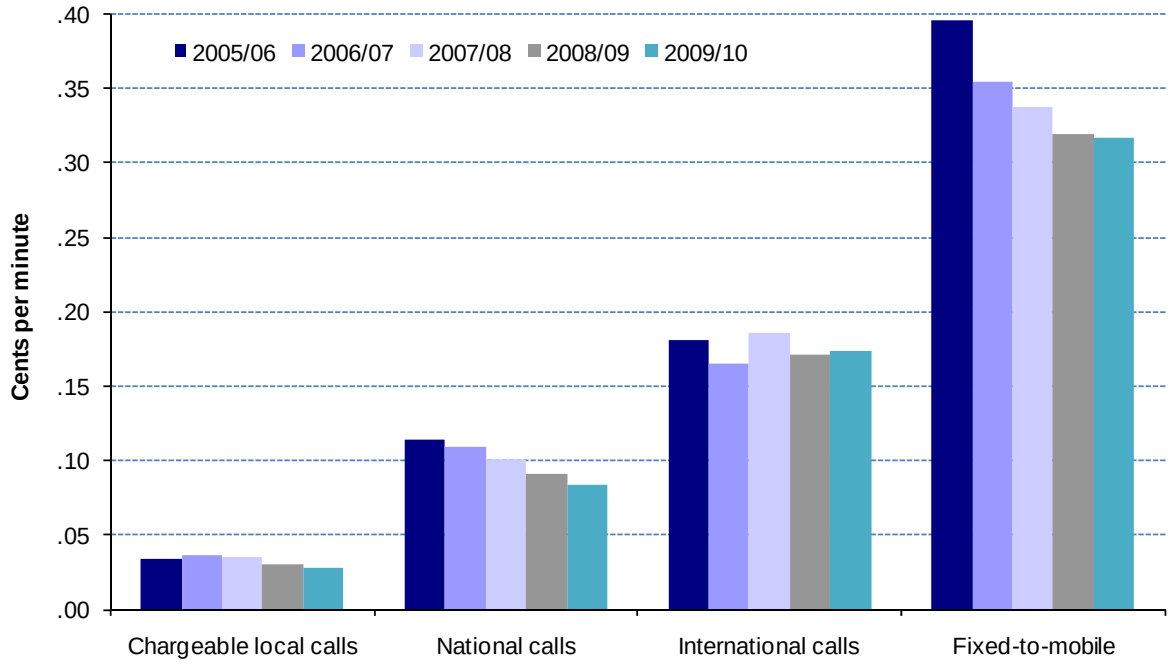
The decline in call volumes is not driven by price. Call pricing has also been reducing making calling more affordable for end-users in New Zealand.

Figure 12 shows the average retail charges for all types of fixed line voice calls which have declined over the last four years. The average price of national and fixed to mobile calling show the largest falls over time. There were only marginal falls in average retail charges for fixed-to-mobile

[10] In calculating aggregates, call minute data for TelstraClear has been estimated for 2005/06 and 2006/07. Corrections have been made to 2007/08 and 2008/09 to remove wholesale minutes.
[11] http://www.skype.com
[12] http://www.telegeography.com/cu/article.php?article_id=35709

and chargeable local calls for the 2009/10 year and a marginal increase in the average retail charge for international calls.[13]

Figure 12: Average Fixed Line Retail Calling Prices



Competing retail voice services and market concentration

Telecom has gradually ceded retail market share over time as competition has increased. Telecommunications retailers can compete with Telecom to provide a voice service in a number of ways, by providing a tolls only service, by reselling a Telecom line together with tolls or, where available, leasing an unbundled line from Chorus and using it to provide their own broadband service bundled together with either a conventional voice service or (less often) a VoIP service that uses the broadband connection.[14]

Resold Telecom lines are provided by Telecom to its rivals at a small reduction to their retail price which suggests resale competition is based on margins earned in the sale of a combined line and voice and possibly broadband package.

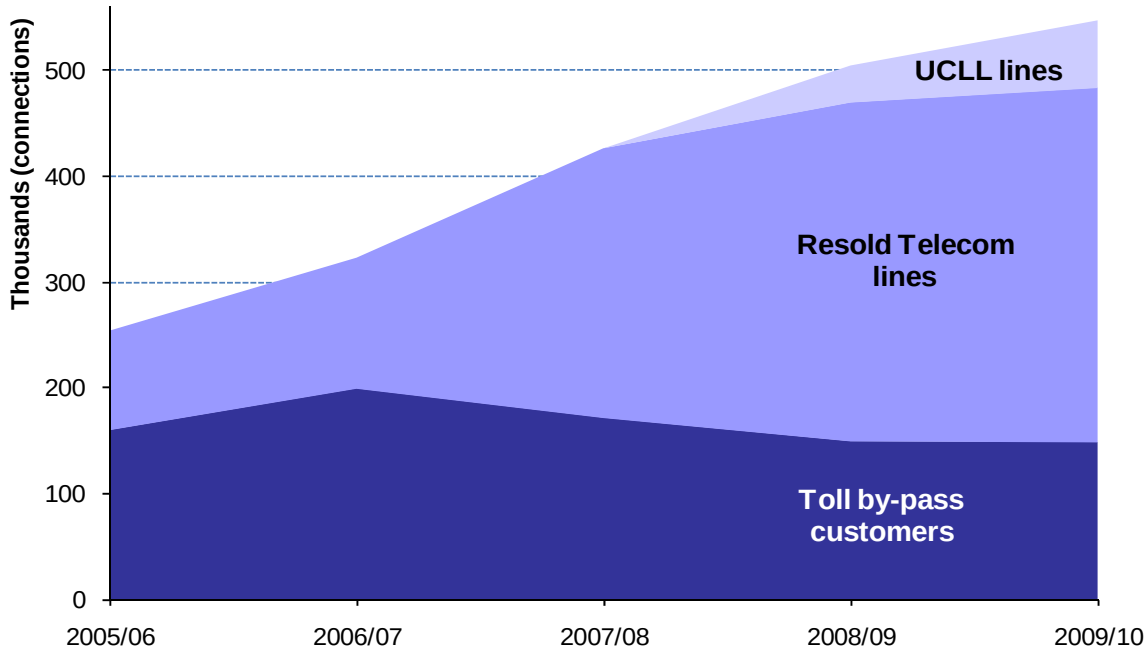
The retail fixed line market has become less concentrated with the share of retail services sold by other retailers increasing. Figure 13 shows the number of consumers purchasing only a toll service (known as toll by-pass) from a non-Telecom retailer has been falling, while the number purchasing

[13] The Commission benchmarked the cost of a basket of fixed line voice services in retail benchmarking report of November 2010. http://www.comcom.govt.nz/telecommunications-market-reports/

[14] A VoIP service can also be provided over a non-unbundled broadband service. As at 30 June 2010 around 50,000 subscribers were using a VoIP service provided over a broadband service.

a phone line combined with tolls has been increasing, as has those purchasing a broadband and voice service provided over an unbundled local loop.[15]

Figure 13: Conventional Voice Services Sold by Non-Telecom Retailer over Telecom Network



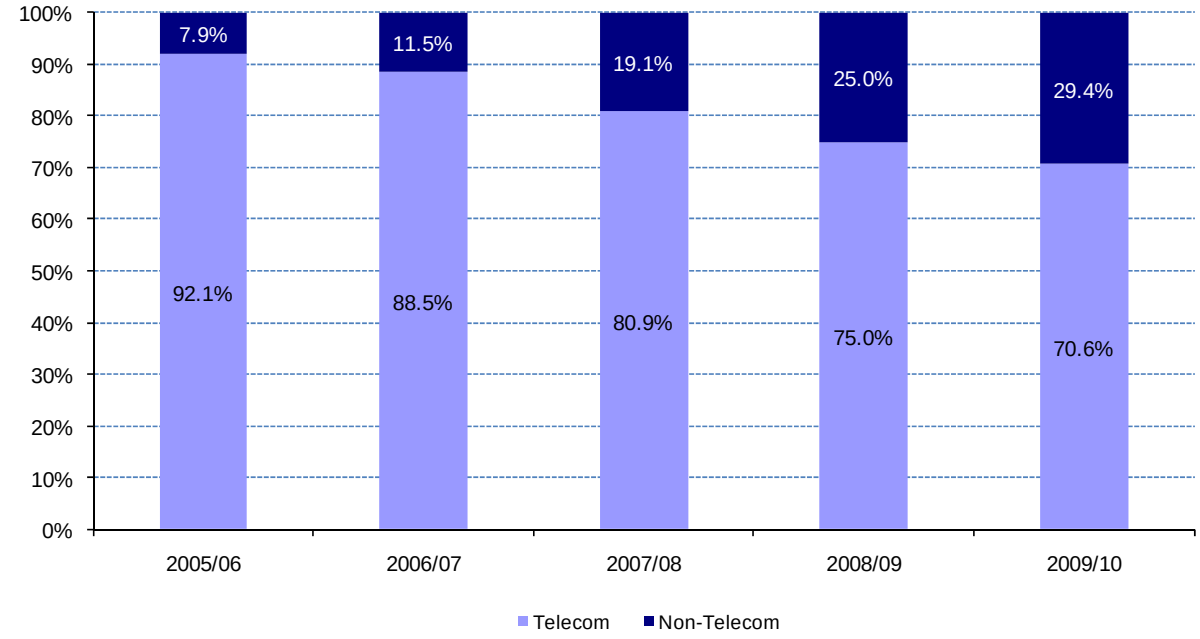
Source: Commerce Commission

Figure 14 shows the non Telecom share of retail fixed line voice connections has continued to increase from 8% in 2005/06 to 29% in 2009/10. A comparison with the UK is the incumbent BT retailed 57% of fixed line connections in 2009 in comparison to Telecom's 71% for 2009/10.

Figure 15 shows market concentration, as measured by the Herfindahl-Hirschman Index (HHI)[16], has decreased as non-Telecom retailers have gained market share. The equivalent HHI for Australia's PSTN service rose to nearly the same level as New Zealand's in 2008/09.[17]

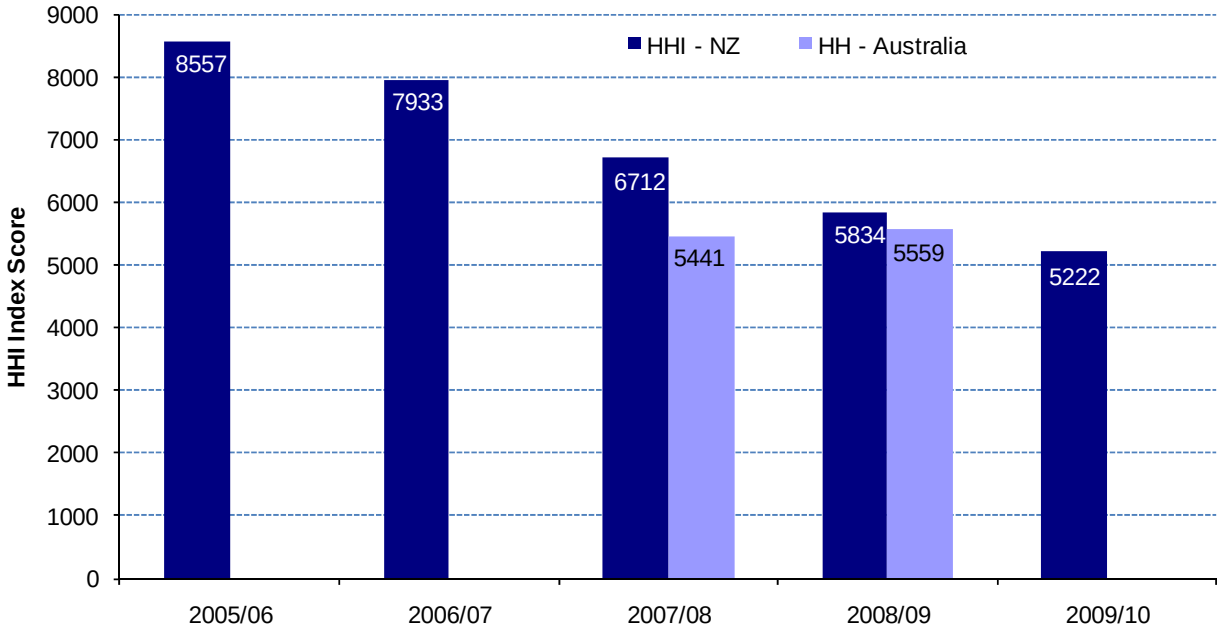
[15] For simplicity it is assumed that all customers purchasing a UCLL service are purchasing a conventional voice service in addition to broadband.
[16] The HHI is a commonly accepted measure of market concentration and is calculated by squaring the market share of each market participant that has a material number of subscribers and adding these together. The maximum possible score is 10,000. The analysis of the HHI indicator in this report does not necessarily indicate that the Commission will use it for measuring competition in any other area.
[17] http://www.accc.gov.au/content/index.phtml/itemId/956397

Figure 14: Telecom and Non-Telecom Share of Retail Fixed Line Voice Connections



Source: Commerce Commission

Figure 15: Retail Voice Market HHI Index



Source: Commerce Commission

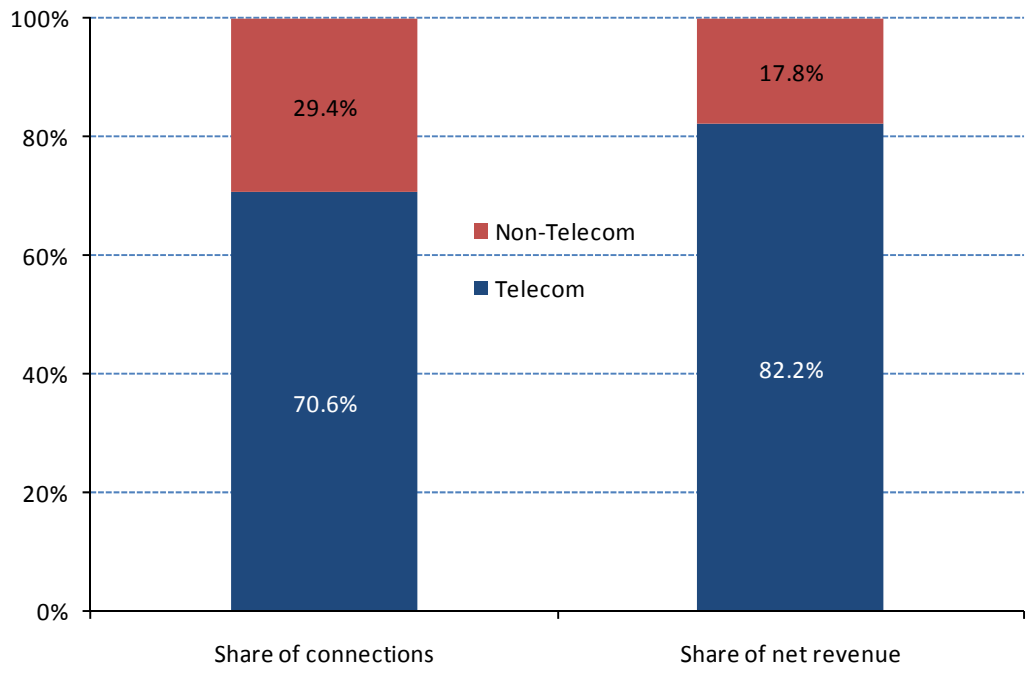
Effect of competition on revenues

Telecom dominates the traditional voice calling market in New Zealand. Most competitors are reliant on reselling Telecom's lines. The exceptions are the unbundlers who obtain lines from Chorus and make up less than 5% of the market, and TelstraClear with their cable network that serves a similar percentage of the market.

The majority of fixed lines not retailed by Telecom are provided via Telecom Wholesale and priced at a modest discount to retail price. Consequently total Telecom revenues are not significantly affected by the loss of retail lines to resold lines. To illustrate this, the Commission has calculated the share of net revenue Telecom and non-Telecom retailers receive from the sale of fixed line services.[18]

Figure 16 shows that while non-Telecom retailers have a 29% share of fixed line retail voice connections, they have only an 18% share of net revenue from the sale of these connections.

Figure 16: Retail Voice Connections vs. Net Revenue Shares



Source: Commerce Commission

[18] The revenue received by non-Telecom retailers has been netted off by deducting the wholesale payments Telecom receives from these retailers for the use of the voice lines and resale of voice services.

Fixed Line Data

Fixed line data services include broadband internet access and business data services such as dedicated leased lines which are used to link up computer systems. Leased lines can also provide internet access. Some internet access is still provided by way of a dial-up analogue service which is also considered a data service.

Most broadband services are DSL services provided over Telecom copper phone lines. Broadband services are also provided via TelstraClear's co-axial cable network that is also used to deliver pay TV in much of Wellington and Christchurch. A small amount of broadband internet access is provided via fixed wireless services and fibre optic cable to the premise services.

In total, data services generated $1.01 billion in revenue in 2009/10, and made up 34% of fixed line revenues, up from 30% in 2008/09. As was shown in Figure 10, revenue from internet access has been rising steadily, while revenue from business data services rebounded in 2009/10 after falling in prior years.

Broadband

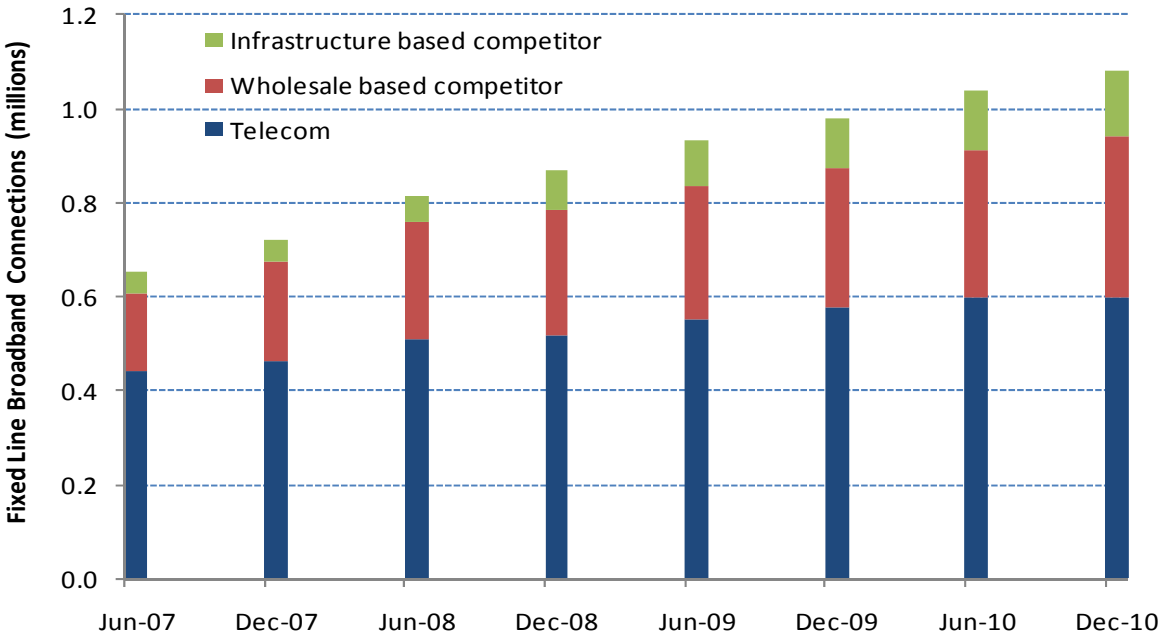
Demand for broadband services in New Zealand continues to grow and this is where the greatest competition for fixed line services has occurred. Consumers have a number of alternatives to Telecom's retail DSL broadband services, including services that utilise local loop unbundling, broadband wholesaled by Telecom and broadband services provided over the TelstraClear cable network.

Figure 17 below shows market shares in fixed line broadband over time, distinguishing between infrastructure based competitors[19] and wholesale based competitors. Telecom's share of retail broadband provision has declined whilst other provider's shares have grown. The majority of this competition is still from wholesale based competitors, and consequently the impact on Telecom's overall revenues is small.

Telecom faces greater competition in broadband services than voice, but broadband is still a concentrated market compared to international comparators. Figure 18 presents data comparing HHI, one measure of competition.

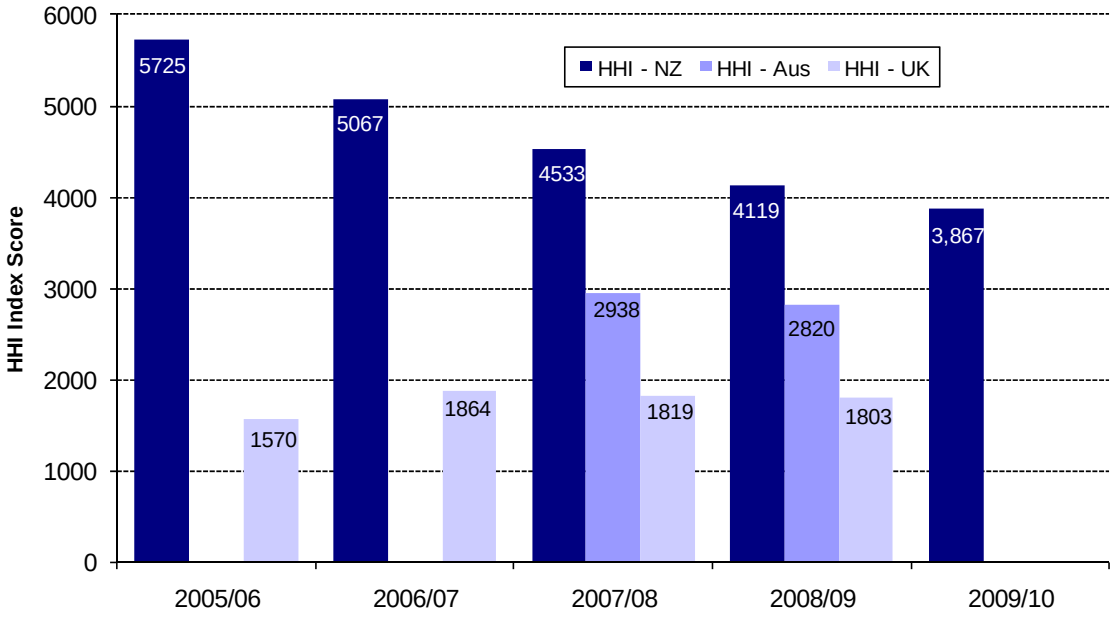
[19] Infrastructure based competitors are those which provide broadband either through alternative networks or through unbundling.

Figure 17: Broadband Subscribers by Type of Provider



Source: Commerce Commission

Figure 18: Retail Broadband Market HHI Index



Source: Commerce Commission

Another measure of competition is the share of retail broadband connections provided by the incumbent telecommunications operator. In New Zealand this is 55% of connections. Across all the

EU member states the average is 47% and in the UK, BT represents 24%. This is indicative of the potential for further growth in competition.

National broadband market shares can mask the extent of competition in some parts of New Zealand, and the effectiveness of competitors. The recent draft section 30R review of UBA examined broadband competition in more depth. It found the extent of competition varied by individual exchange area. Effective competition was driven by infrastructure based competitors, which were the unbundlers and the TelstraClear cable network. Of these two, it is unbundlers who have the greatest potential to grow given the limited coverage of the cable network in New Zealand, although this is constrained by the extent of cabinetisation in the market.

Infrastructure based competitors represent 13% of the broadband market compared to 32% for of wholesale based competitors. Where an end-user switches from Telecom to a wholesale based competitor; the financial impact on Telecom is smaller. However, when an end-user switches to an infrastructure based competitor the impact is greater as the majority of value of that customer moves to the competitor. This gives greater incentive to Telecom to compete to retain those customers.

Development of Unbundling

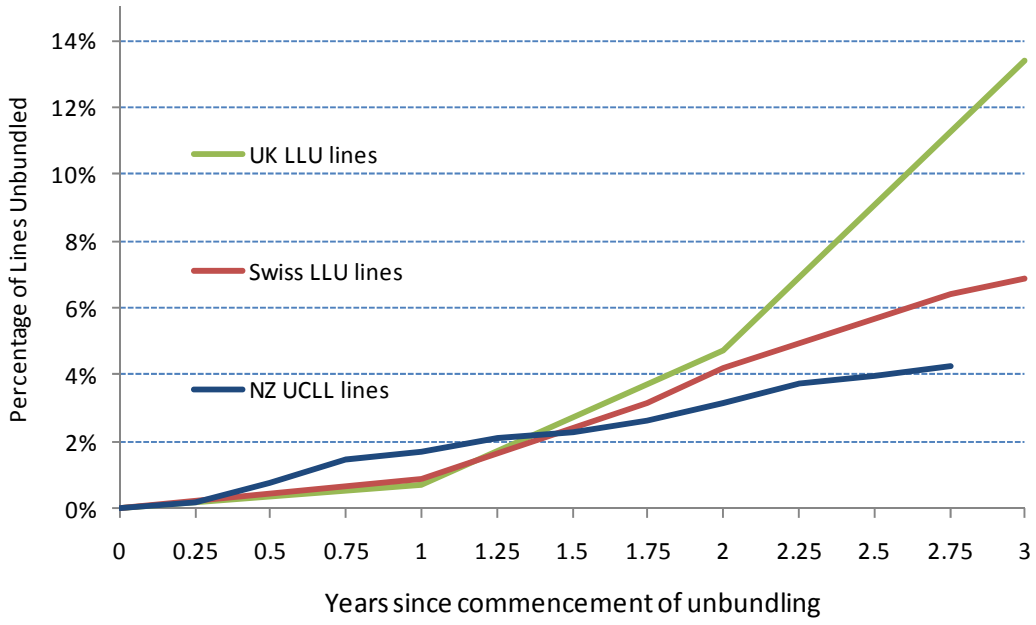
Unbundlers are infrastructure based competitors who typically compete across both voice and broadband provision. The Commission has previously identified that significant benefits to competition accrue from unbundling. It is also the area where effective competition is most likely to grow. This section looks in more detail at how unbundling has developed since its introduction in New Zealand.

The changes to the Telecommunications Act in 2006 allowed access seekers to unbundle exchanges. Terms and prices for unbundling were finalised in November 2007 and the first unbundled service was launched by Orcon in June 2008. New Zealand has seen continued growth in unbundling since that date which has increased competition in the provision of voice and broadband services to end-users.

International comparisons

Figure 19 compares the evolution of unbundling in the UK, Switzerland and New Zealand since the first full year unbundling actually occurred in these jurisdictions.[20]

Figure 19: Percentage of Lines Unbundled by Years Since Commencement



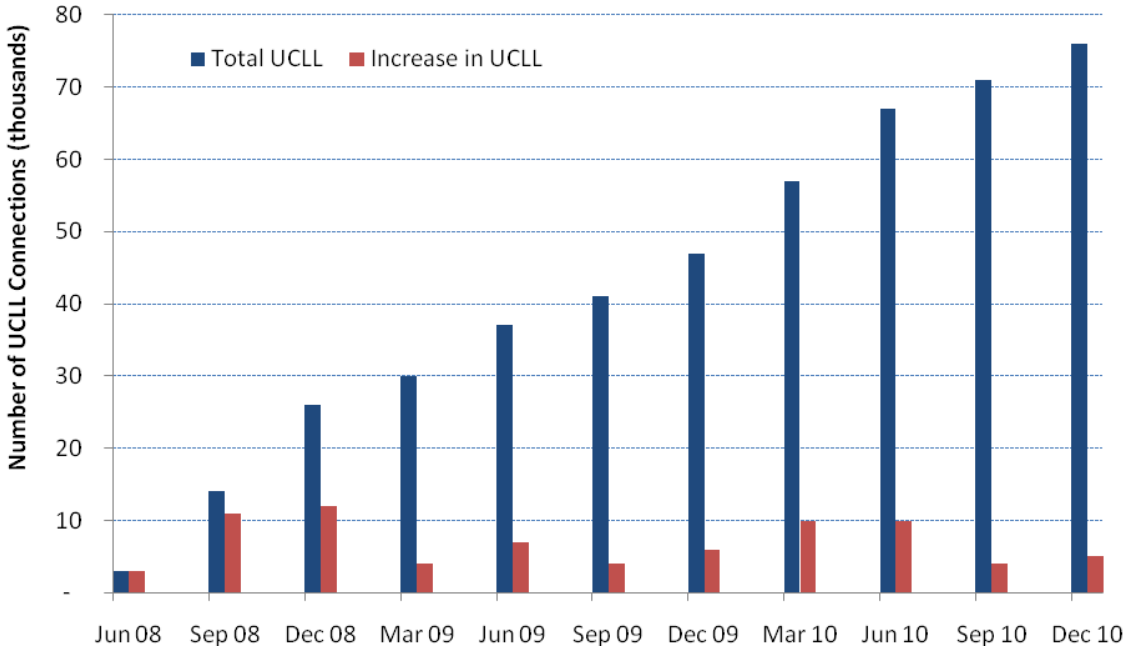
Source: Commerce Commission, Ofcom.

[20] For the UK, unbundling can be the full metallic path facility (MPF) or can be a shared line (where only broadband services are offered). Excluding shared lines improves the relative performance of New Zealand. However, if shared lines had not existed in the UK you would expect greater uptake of full unbundled lines.

Unbundling performance

The international comparison above is also mirrored when New Zealand is viewed in isolation. Unbundling initially represented an increasing proportion of the incremental growth of broadband provision by non-Telecom operators. Figure 20 shows the number of lines unbundled each quarter had a sustained increase for only the first few quarters after unbundling commenced and since then has had several marked declines and partial recoveries.

Figure 20: Number of Unbundled Lines



Source: Telecom

Several factors may have contributed to the relative slowing of unbundling:

(1) ***Cabinetisation***: Telecom entered into an undertaking with government to upgrade broadband performance by investing in fibre to the node (FTTN) or cabinetisation. Where a line is cabinetised, broadband provided from the exchange via unbundling is degraded, whereas broadband provided from the cabinet is enhanced.[21] From the end of 2009 and across 2010, unbundling has represented a continued smaller proportion of incremental Access Seeker lines with 553,000 lines cabinetised by the end of 2010. Over the same period, incremental growth in competitive offerings of broadband have become proportionally more dependent on Telecom's wholesale products.

In the future it should be possible for unbundlers to offer voice from the exchange over cabinet-fed lines in combination with a wholesale broadband product. This will increase the number of customers unbundlers can serve, and is likely to mitigate the impact cabinetisation has on unbundling.

[21] Unbundlers could opt to unbundle cabinets to provide broadband, in practice the economies of scale needed (up to 50% of customers connected to a cabinet), means sub-loop unbundling has not occurred.

(2) ***Discriminatory pricing concerns***: In 2010 Telecom reached a settlement with the Commerce Commission over discriminatory offers which were known as the 'loyalty' offers.[22] These offers effectively penalised unbundlers and may have had an adverse effect on unbundling demand. The loyalty offers began in December 2008 and were terminated in September 2009. Over the period, wholesale offerings increased significantly and then tailed off when the loyalty offers came to an end. The Commission is currently investigating a second potential breach of the undertakings non-discrimination provisions, in relation to the inability of exchange-based access seekers to provide voice services over lines that have been cabinetised.[23]

(3) ***UFB and related legislative amendments***: The Government announced in September 2009 the detailed proposals for a new high speed fibre to the premises network or Ultra-fast Broadband (UFB). Substantial changes to the legislative framework that will be made if Telecom is selected as substantial provider of fibre and structurally separates as was disclosed on 16 February 2011. This includes a de-averaging of the unbundling local loop price which may raise the wholesale price in urban areas. It is possible that the prospect of large scale fibre investment and higher unbundled local loop prices in urban areas may dampen investment.

Unbundling can be measured by both the number of local exchanges unbundled and the number of lines unbundled. The first is an indicator of the customer reach of unbundlers and the second illustrates their success in attracting customers. Investment in unbundling has continued with 108 exchanges unbundled to date. Unbundling covers under 20% of all Telecom exchange areas but these exchanges represent around 65% of all Telecom lines in New Zealand. This clearly illustrates the importance of scale to unbundling which in practice has occurred at the largest exchanges. The figure below illustrates the growth in total unbundled lines.

Overall, investment in unbundling has continued to extend the reach of infrastructure based competitors as measured by number of exchanges unbundled. However as a consequence of cabinetisation, growth in unbundled lines has slowed. Total lines unbundled remains relatively low at 4% of all lines and Figure 20 shows that growth in the last two quarters has slowed. The number of cabinetised lines has continued to increase and it is estimated that approximately half of all lines in unbundled exchanges will have been cabinetised by December 2011.

[22] The settlement deed is available at: http://www.comcom.govt.nz/assets/Telecommunications/Telecom-Separation/Loyalty-Offer-Settlement-between-Commerce-Commission-and-Telecom-July-2010.pdf
[23] Information on this investigation is available at: http://www.comcom.govt.nz/telecom-compliance-with-the-undertakings-uba-with-sles/

Broadband Quality

In addition to the uptake of broadband and how it is delivered, the Commission is also interested in the quality of broadband.

Telecom has committed Chorus to providing broadband connections capable of speeds of over between 10 Mbps to 80% of its customers by the end of 2011. This involves rolling out 3,600 new cabinets and 2,500 km of new fibre by the end of 2011.

The Commission prepares a separate report on broadband quality which measures web browsing speeds and variability in performance. The Commission's broadband quality report for the six months to 31 December 2010 will be released shortly after the release of this report.

By December 2010, Chorus had rolled out 2,601 new cabinets serving 553,000 lines. As at 1 January 2011, 95.5% of Chorus lines were capable of delivering DSL broadband services. If an ADSL2+ DSLAM was deployed, 88% Chorus lines could supply DSL at speeds of greater than 10 Mbps as measured to the local exchange or cabinet. If only lines in exchanges with ADSL2+ actually deployed are considered, 64% of lines are capable of speeds of greater than 10 Mbps.

The actual speeds for retail broadband plans, however, vary significantly depending on various technical constraints (e.g. backhaul arrangements, and the degree of contention deeper in the network, house wiring, etc).

An independent company Akamai[24] provides data on average through-put speeds achieved by internet users (using a system of delivering large content files such as operating system updates from a distributed system of servers typically located at ISPs)[25]. The distribution of the speed of downloads delivered by Akamai in New Zealand is shown in Figure 21[26].

Figure 22 shows broadband speeds measured by Akamai for a number of Asia Pacific countries as well as the UK. New Zealand's relative performance for average broadband speed appears to be on par with Australia and Singapore, and below the UK and the US. The actual broadband speeds are considerably lower than the potential DSL speeds able to be achieved in New Zealand, although average broadband speeds appear to be improving.

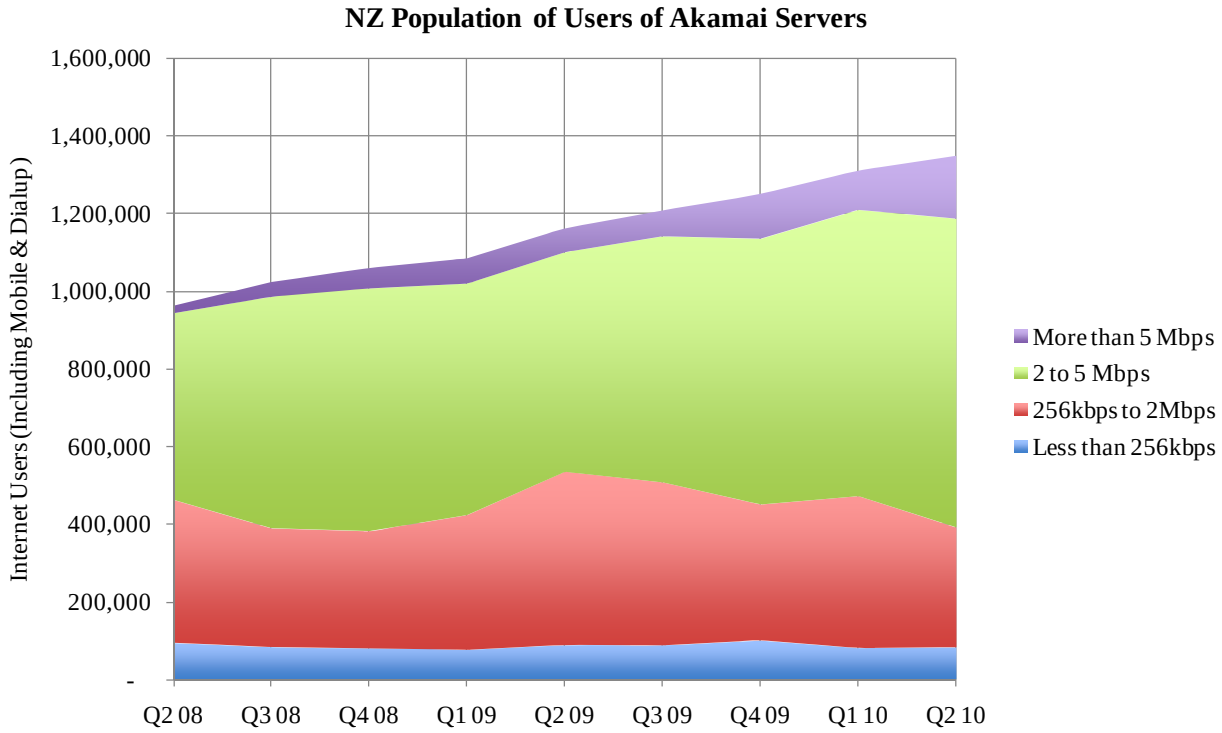
The actual download speeds are influenced by the plans that consumers choose to buy. In New Zealand, around 300,000 customers still have dial up services and a number choose a 256kbps/128kbps broadband service rather than a full speed/full speed broadband service.

[24] http://www.akamai.com

[25] The testing carried out by Akamai has been described as "in the network, third party testing". Akamai measures speeds locally so they are not affected by international backhaul and also they are measured delivering a real service that is unlikely to be influenced by specific ISPs or users. Akamai measures a significant number of individual downloads as it delivers data to virtually every broadband connection in the country (including connections that do not use DSL technology). It claims it delivers approximately 20% of the world's web traffic via its platform of more than 56,000 servers.

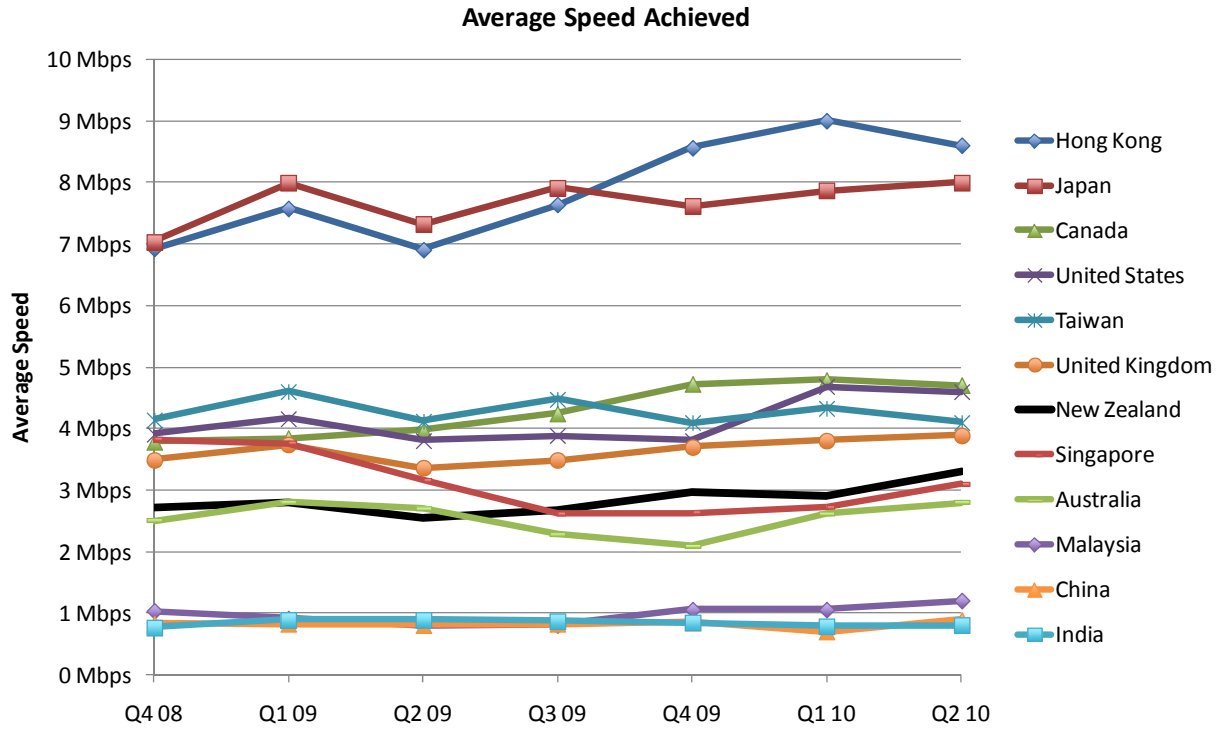
[26] Note that the Akamai speed measure is quite different to the broadband performance measures collected by Epitiro's ISP-I system and reported in the Commission's reports on broadband quality. ISP-I tests only premium broadband plans at sites located close to the exchange so the results give close to the optimum performance that can be expected rather than the average performance achieved by users. ISP-I also measures web browsing speeds rather than file download speeds.

Figure 21: Distribution of Download Speeds in New Zealand



Source: Akamai

Figure 22: Average Download Speeds by Country



Source: Akamai

MOBILE MARKET

Introduction

In this section we discuss trends in the mobile market. This section is structured as follows.

- An overview of the mobile market detailing the changes in the size and structure of the mobile sector.
- Mobile calling and revenue trends including an international comparison.
- Mobile data trends including SMS and mobile broadband.

Market Overview

There are three mobile network operators in the New Zealand market. Vodafone operates a nationwide 2G GSM and 3G UMTS[27] network. Telecom operates a nationwide 3G UMTS network (the XT network), as well as its legacy CDMA network.

The third operator, new entrant 2degrees, began service with a 2G GSM network in August 2009 and a year later commenced operating its 3G UMTS network. 2degrees provides coverage using its own cell sites in Auckland, Wellington, Christchurch and Queenstown, and relies on roaming via Vodafone's GSM network to provide coverage outside these areas. 2degrees announced in February 2011 that it would spend $100 million over two years extending its network beyond the main cities.

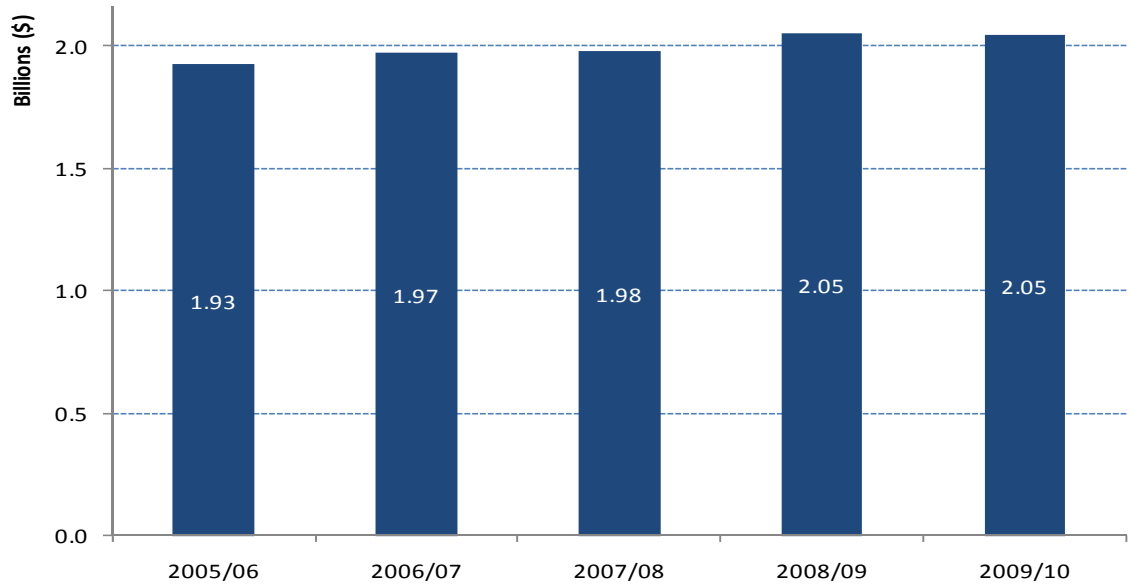
New Zealand also has a number of mobile virtual network operators (MVNOs) who resell mobile services from mobile operators who have their own network. [28] MVNOs usually have some scope to offer different bundles of services than their wholesale mobile network operator. The number of MVNOs grew with Compass entering the market in May 2010 and Orcon in August 2010. In November 2010, M2 purchased fellow MVNO Black + White. TelstraClear continues to be the largest MVNO.

MVNOs have not as yet gained a significant share of the New Zealand mobile market. Reported total subscribers from surveyed MVNOs as at 30 June 2010 were 37,000 and reported total retail revenues for the 2009/10 year were $25 million.

Figure 23 shows the growth of mobile retail revenue has slowed in recent years and appeared to plateau in 2008/09[29] with no material change in total mobile retail revenue reported for 2009/10.

[27] Universal Mobile Telecommunications System (UMTS) is the 3G successor to the 2G GSM standard. The most common form of UMTS uses W-CDMA as the underlying air interface.
[28] An MVNO is an operator that provides mobile phone service but does not have its own licensed frequency allocation of radio spectrum, nor does it have the entire infrastructure required to provide mobile telephone service.
[29] The 2009 Annual Telecommunications Monitoring Report showed a drop in retail mobile revenues for 2008/09 but this was due to a coding error in data supplied to the Commission.

Figure 23: Total Mobile Retail Revenues



Source: Commerce Commission

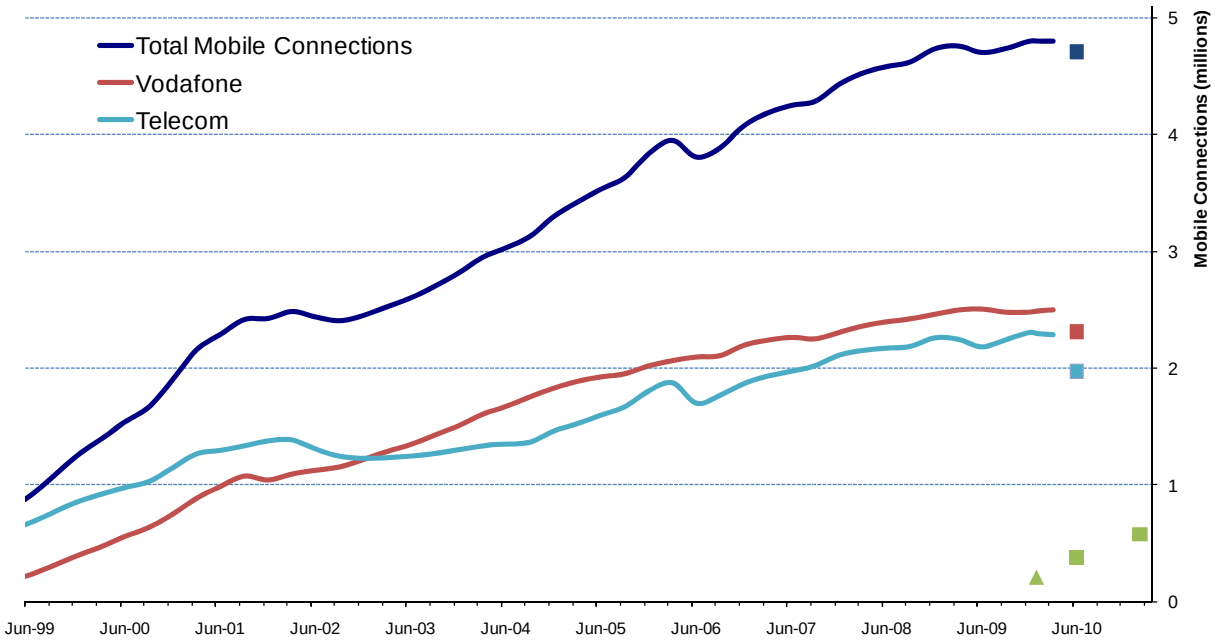
Mobile Voice

Subscribers

Total mobile subscriber numbers have increased strongly over time but growth has slowed in recent years and could be reaching saturation point. However, new mobile devices like tablet computers may increase the number of connections.

As at 30 June 2010, there were 4.7 million mobile subscribers in New Zealand that had been active in the previous 90 days, which gives a population penetration rate of 108%. The previous time series of subscriber numbers has been disrupted by the adoption of the new definition of subscribers, as illustrated in Figure 25 where the first subscriber numbers using the new definition are shown using small squares. Dark blue indicates the total subscribers while red is Vodafone, light blue is Telecom and green is 2degrees. The first 2degrees number indicated by a small triangle was subscribers active within the previous 30 days.

Figure 24: Mobile Connections by Provider



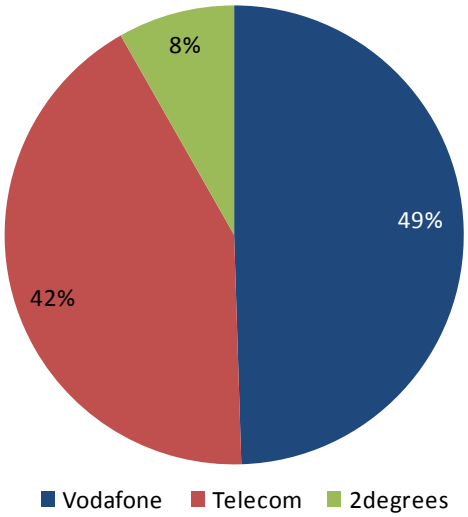
Source: Telecom, Vodafone, 2degrees, Commerce Commission

Vodafone and Telecom had previously reported subscriber numbers on the basis of subscribers who were active in the prior 6 months and 2degrees reported those active in the prior 30 days. The Commission had been accepting the operator definitions but given the differences between Telecom, Vodafone and 2degrees, sought the advice on what was most common international practice. The Commission has been informed that the most common practice is to count mobile subscribers active in the previous 90 days. This is the definition used by the ITU for mobile subscribers and by the OECD for counting mobile broadband subscribers.

Showing market share by the number of subscribers can be misleading, as it does not show subscriber usage, revenue generated or account for customers who subscribe to more than one mobile network. In the case of 2degrees, taking a subscriber number snapshot at the end of the first period also does not reflect the fact that subscribers grew from zero at the beginning of the period. Figure 25 shows market shares by subscriber numbers as at 30 June 2010. 2degrees market share by retail voice traffic or revenue is much lower for the reasons mentioned above. The Commission is not able to show market share by retail voice traffic as Vodafone's data is claimed to be commercially sensitive.

The subscriber figures give a market share of 50% for Vodafone, 42% for Telecom and 8% for 2degrees.

Figure 25: Mobile Market Share by Subscribers

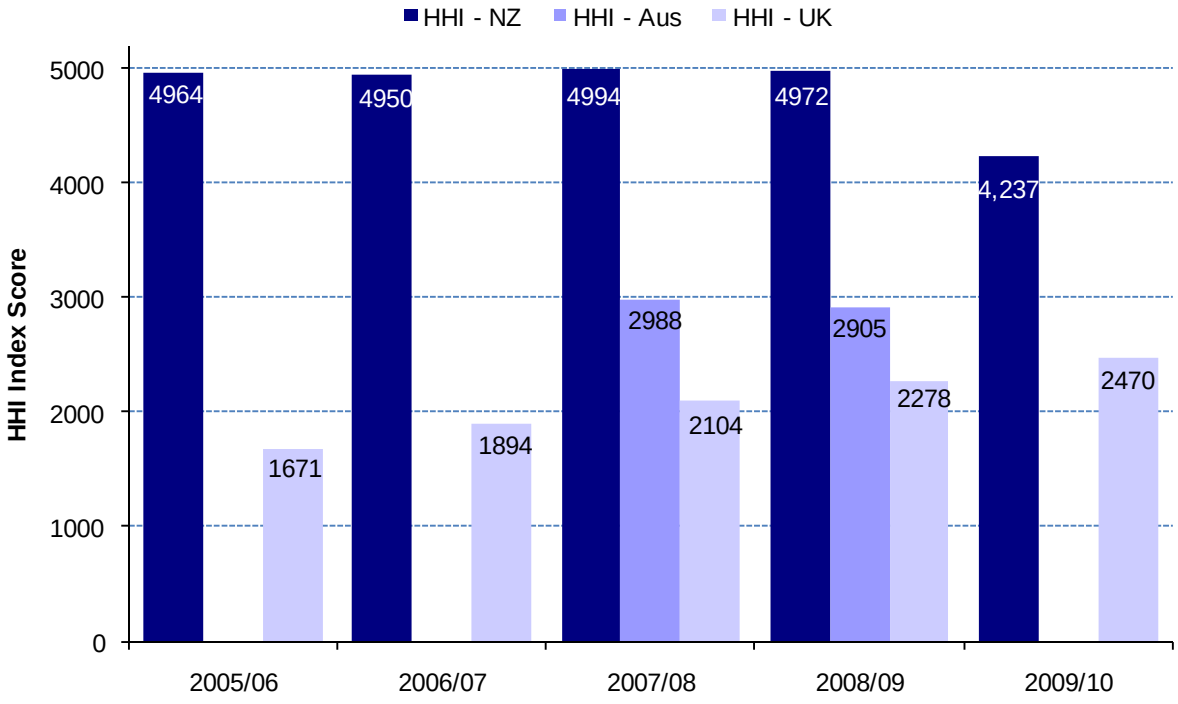


Source: Commerce Commission

Market concentration

The entry and growth of 2degrees has greatly reduced market concentration but this still remains high. This is illustrated in Figure 26 which shows the New Zealand mobile market remains highly concentrated, as measured by the HHI index, compared to the mobile markets in Australia and the UK.

Figure 26: HHI Index in the retail mobile market



Source: Commerce Commission

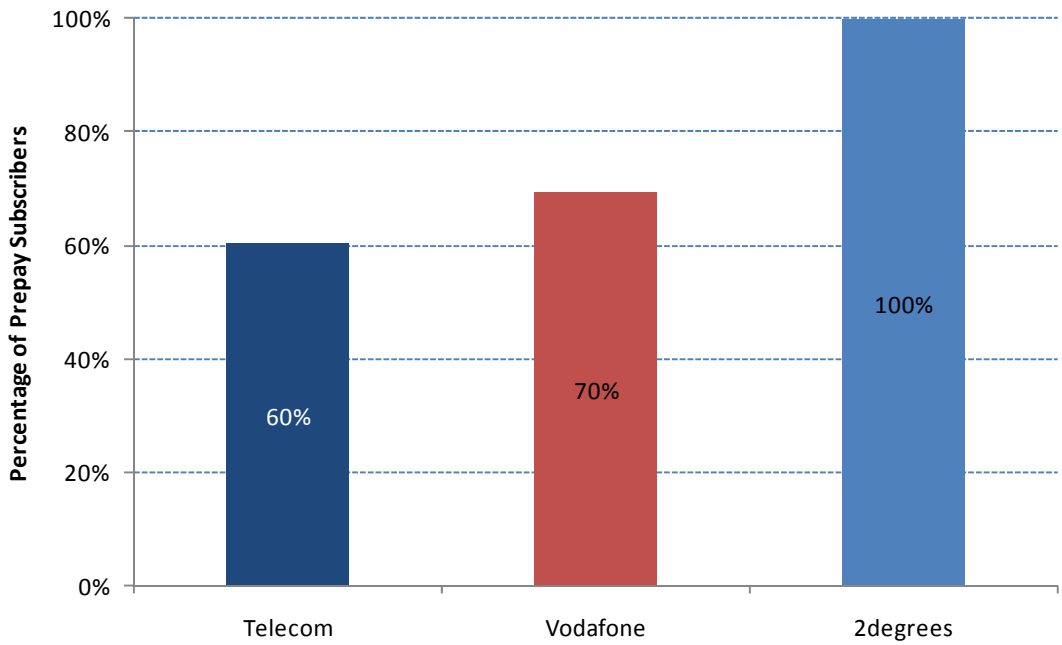
Connection type

Pre-pay connections continue to be with predominant form of mobile connection in the New Zealand market. Approximately two-thirds of New Zealand mobile subscribers have pre-paid connections, and the remainder have post-paid (or contract) connections. This figure has remained relatively constant over the last four years.

Prepay customers tend to be lower spending customers when compared to postpaid customers. Telecom's prepay customers generate a low average revenue per user per month (ARPU) of just under $10, which is much less than the ARPU of over $20 a month that was reported by Vodafone for its prepay customers when its parent company last reported this figure publicly in 2007. Telecom's postpay customers have an ARPU of a little over $50 a month which is again much less than the postpay ARPU last reported by Vodafone which was around $120 a month.

Figure 27 shows Telecom had lowest proportion of prepay mobile customers at 60% of its customers, while Vodafone had 70% and 2degrees 100%.

Figure 27: Percentage of Pre-Paid Mobile Subscribers as at 30 June 2010



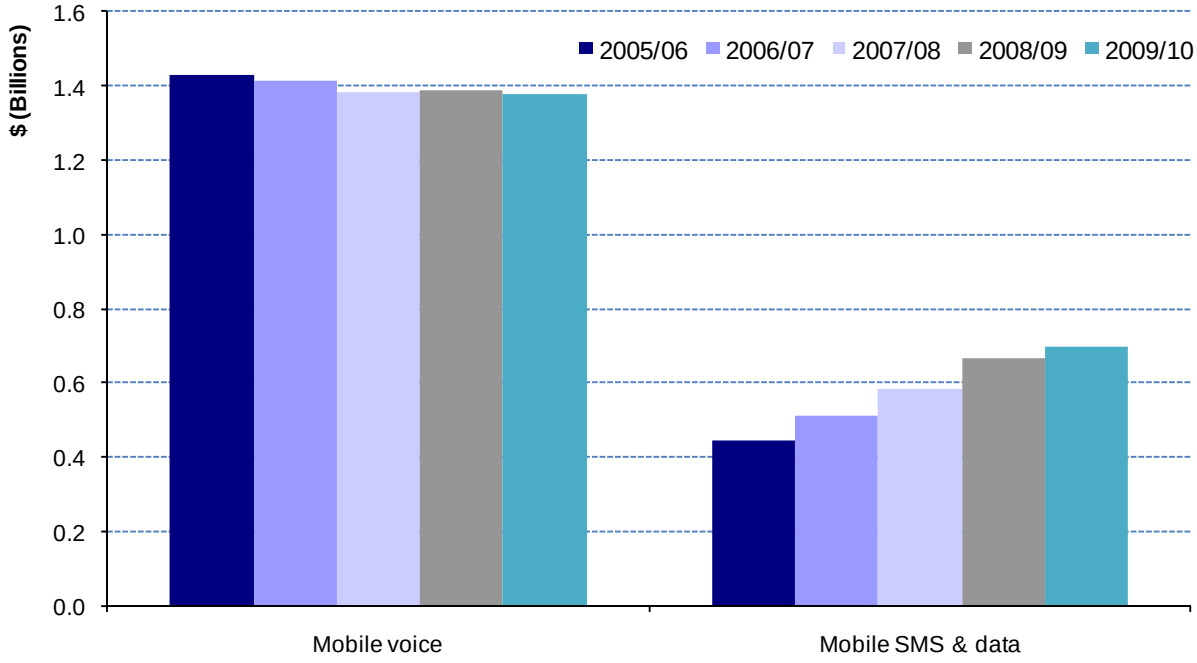
Source: Telecom, Vodafone, 2degrees

Mobile revenues

Voice revenues from mobile networks have been in gradual decline as data revenues have grown strongly. This reflects a wider trend also shown in the fixed line network.

Figure 28 shows revenue from mobile voice services been gradually falling despite the growth in mobile call volumes. This in contrast to the growth in mobile data revenue. Mobile voice revenues in New Zealand are still around double mobile data revenues. [30]

Figure 28: Mobile Voice and Data Revenue Trend



Source: Commerce Commission

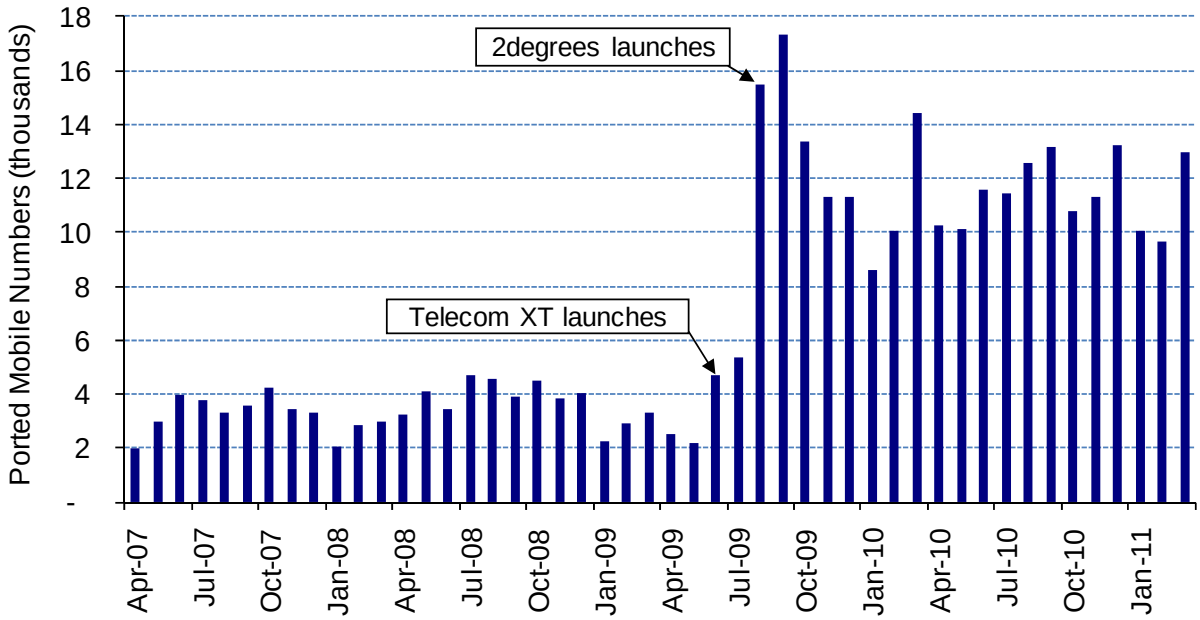
Number portability

Mobile number portability was implemented in New Zealand in April 2007. As a result, it is possible for an end-user to easily switch networks whilst retaining the same phone number. This makes it easier for mobile operators to attract customers from their competitors.

Figure 29 shows the volume of mobile numbers that have been ported each month from April 2007 until March 2011. This indicates that the level of porting rose significantly after the entry of 2degrees in August 2009. While the number of mobile numbers ported never exceeded 6,000 a month before August 2009; the number of numbers ported since August 2009 has never dropped below 8,000 and for most months has exceeded 10,000.

[30] Other mobile revenue has been apportioned between the two types of revenue.

Figure 29: Mobile Numbers Ported each Month



Source: TCF

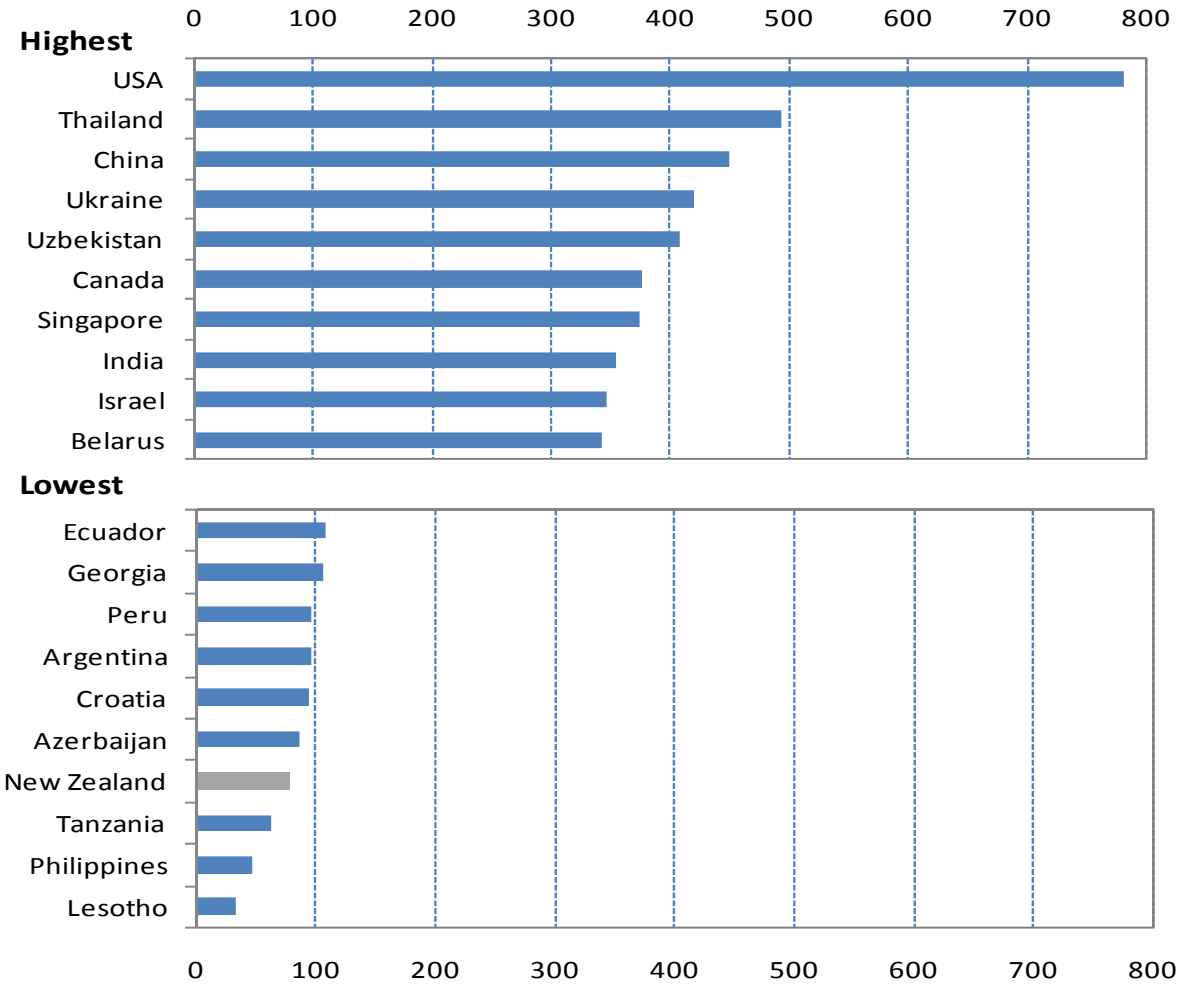
Mobile voice traffic

Voice traffic per subscriber over mobile networks in New Zealand remains very low compared to international comparators. Total voice traffic has increased despite revenues falling, reflecting falling prices. However, the majority of voice traffic has been 'on-net' traffic reflecting a pronounced price difference between 'on--net' and 'off-net' calls. Again this is very different to international comparators.

Figure 30 indicates that mobile voice traffic per subscriber in New Zealand at 79 minutes per month remains amongst the lowest in the world. The comparator information was provided by GSMA (based on publicly available data) and the 10 countries with the highest usage and the 10 countries with the lowest usage were selected.[31] New Zealand's usual comparators of Australia and UK had reported average usage of 120 minutes and 198 minutes per month respectively.

[31] The GSMA reported data is for Q3 2010. Data for USA includes incoming in addition to outgoing mobile minutes.

Figure 30: International Average Mobile Voice Usage per Month



Source: GSMA

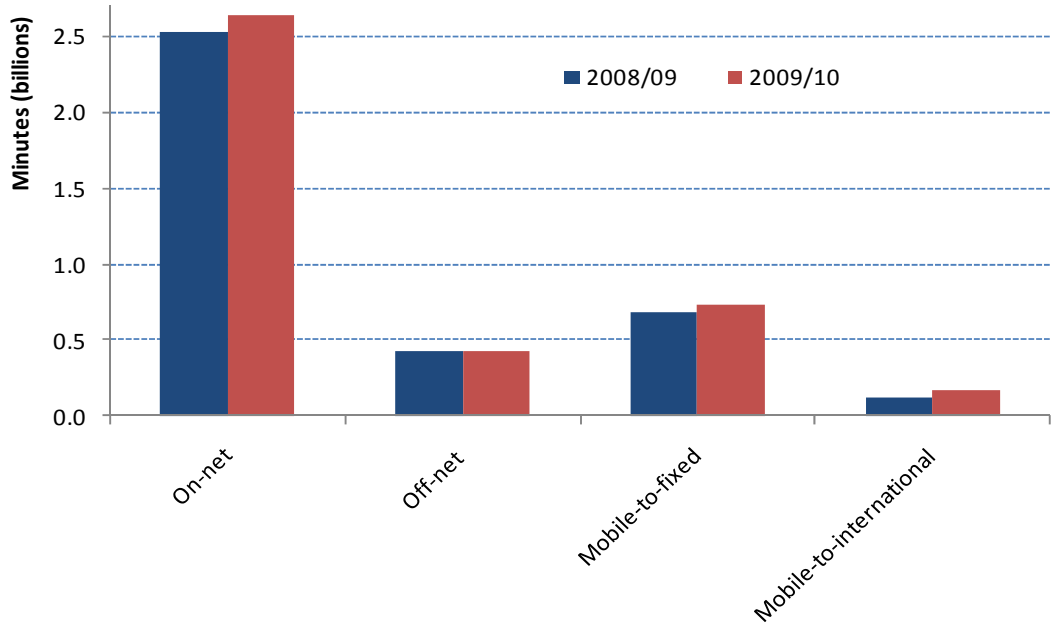
Figure 31 shows the mobile voice minutes had been growing strongly but that this growth slowed in 2009/10. This also indicates the pace of fixed-to-mobile substitution has been modest. As mentioned previously, mobile voice minutes grew from 27% of all voice minutes in 2008/09 to 29% in 2009/10.

Figure 31: Mobile Voice Minutes Trend

Source: Commerce Commission

Figure 32 shows that by far the largest portion (and growing) of mobile minutes is generated by calls between mobile phones on the same network (on-net) while calls to a mobile phone on another network (off-net) are lower than mobile calls to the fixed network and not growing.

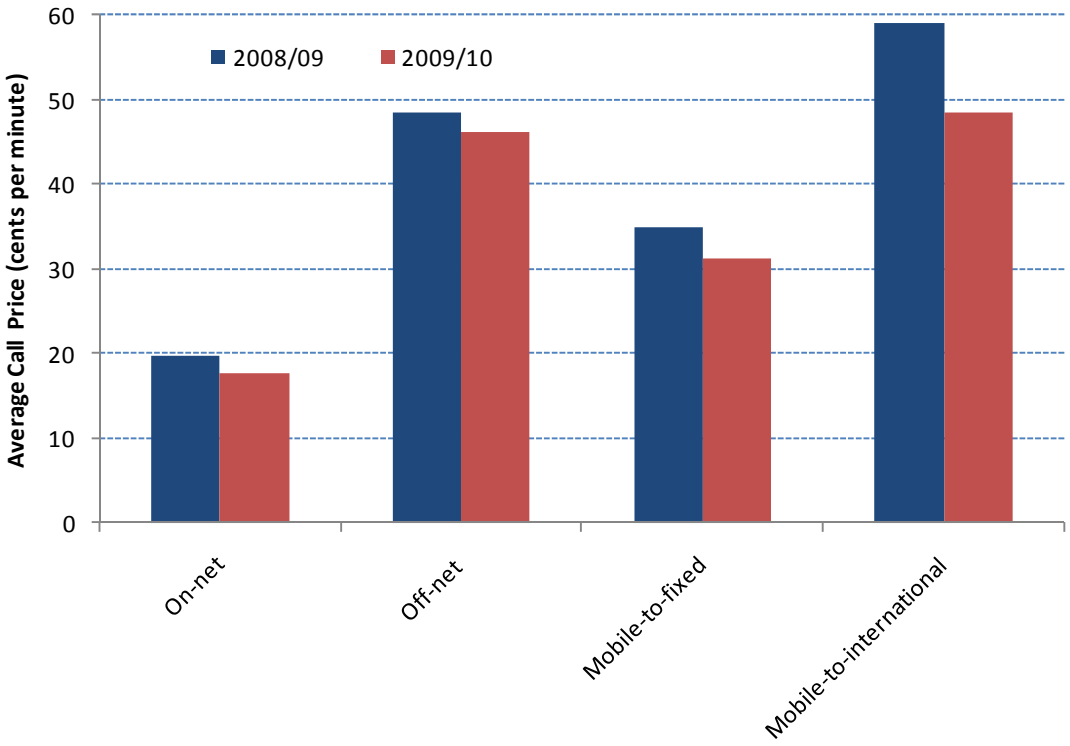
Figure 32: Mobile Call Minute Volume by Call Type



Source: Commerce Commission

Figure 33 shows the price differential between the different mobile call types, which explains some of the differences in call volumes, with on-net calls being priced much lower than off-net calls. Figure 33 also shows that the average price of all types of mobile calling dropped materially between 2008/09 and 2009/10. However, despite the apparent drop in the average price of off-net mobile calls, their volume did not increase at all. This may be due to the entrenched calling patterns caused by pronounced on-net/off-net price differentials, and other factors that encourage communication between customers of the same network and discourage communication between customers of competing networks.

Figure 33: Mobile Call Pricing by Call Type



Source: Commerce Commission

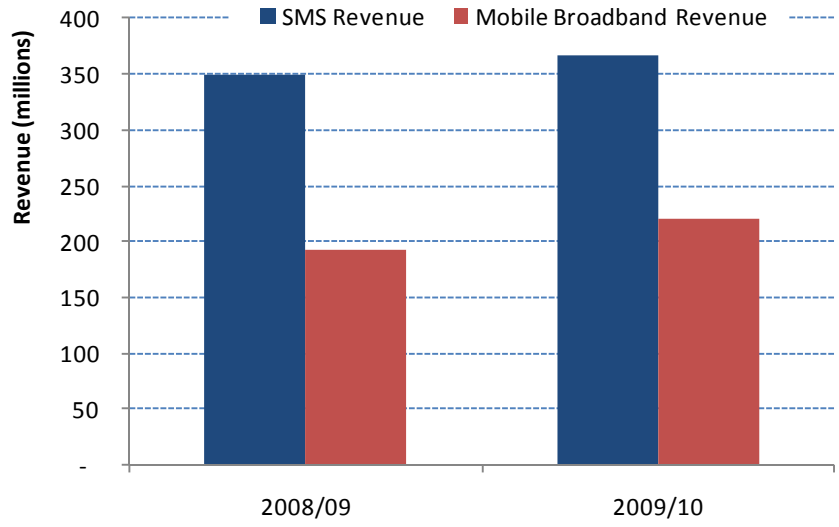
Mobile Data

There are two categories of mobile data services: SMS and mobile broadband. SMS, or text messaging as it is commonly referred to, is one of the key communications services delivered by mobile providers. SMS enables consumers to send short text messages, of 160 characters or less, to other mobile handsets.

Mobile broadband has been gaining popularity in recent years with the deployment of higher-speed data technologies by the mobile network operators. Until the last few years mobile broadband services in New Zealand were almost exclusively provided by the provision of devices such as data cards and USB dongles that were used to provide wireless broadband connections to PCs and laptops. More recently the development of smart phones, which effectively have the processing power of a small PC, has allowed mobile handsets to be used for applications such as web surfing and streaming video. Cheaper smart phones and more competitive data plans have also driven the use of mobile broadband over mobile handsets.

Figure 34 shows that SMS continues to be the major source of mobile data revenue for New Zealand mobile operators but that mobile broadband revenue is growing more strongly as the penetration of smart phones increases. Smart phones have transformed the way in which consumers use data services on mobile devices. Telecom reports over a 200% increase in mobile data usage in the last financial year. [32]

Figure 34: Split of Mobile Data Revenue



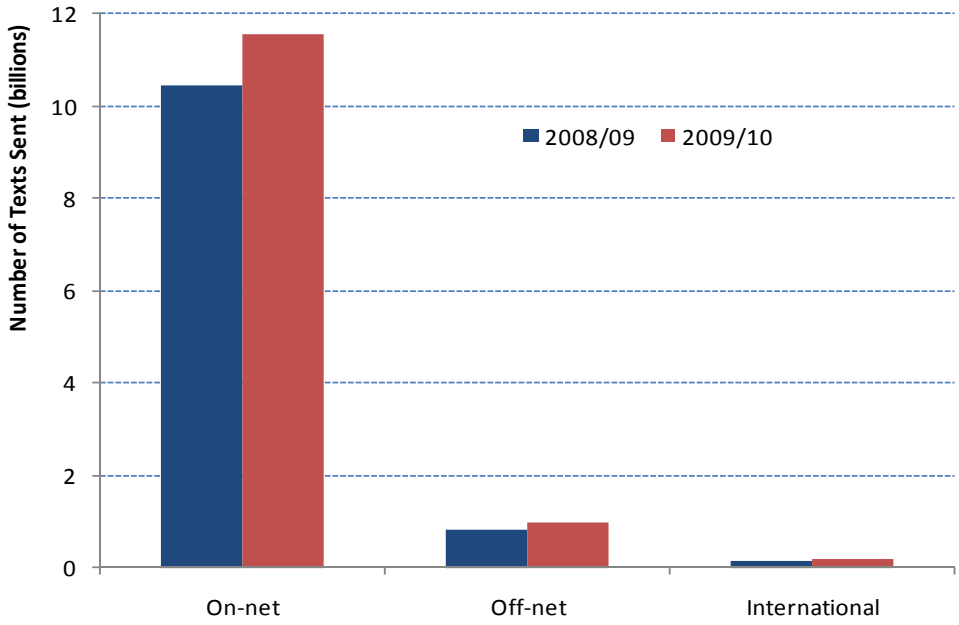
Source: Commerce Commission

[32] Telecom Corporation of New Zealand Limited Annual Report year end June 2010 page 24

SMS

Figure 35 shows that the volume of SMS messages sent in New Zealand continues to grow with the vast majority (over 90%) of those messages being on-net texts. On-net texts also made up the majority of the growth in messaging. Text messages sent in 2009/10 totalled 12.7 billion, up from 11.4 billion in 2008/09.

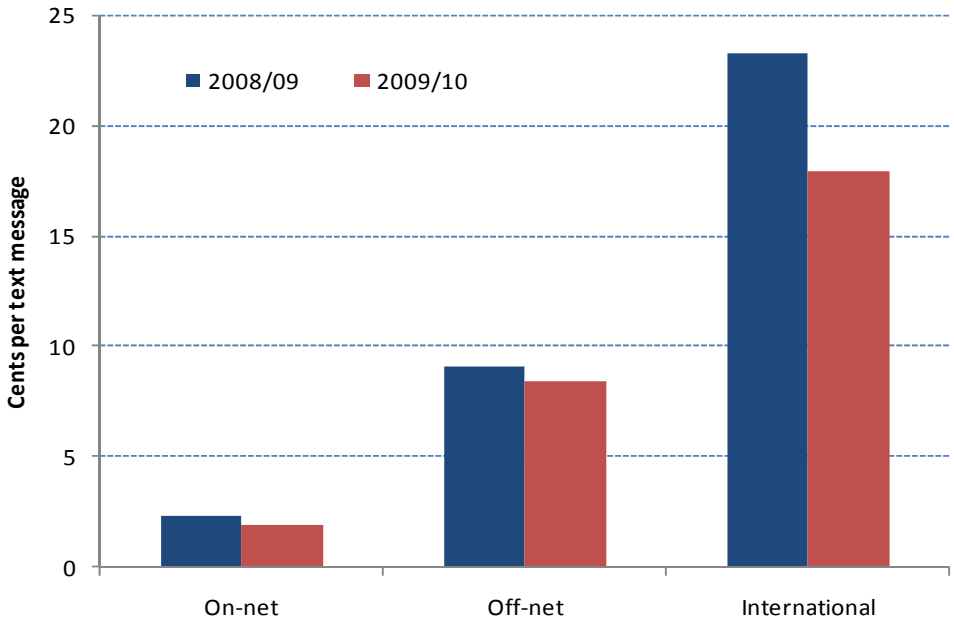
Figure 35: SMS Volumes by SMS Type



Source: Commerce Commission

Figure 36 shows that similar to mobile calling, there is a significant price differential between on-net and off-net traffic. This price differential partly explains the traffic differential, but the dominance of on-net SMS traffic it is so overwhelming as to suggest there are other factors at work that are entrenching on-net traffic.

Figure 36: SMS Average Price by SMS Type



Source: Commerce Commission

Mobile broadband

The Commission started to collect data on mobile broadband in 2010. It is estimated that as at 30 June 2010 there were 200,000 active mobile data card connections, and over 1 million mobile subscribers had used their mobile handset to access the internet within the previous 90 days.

THE YEAR IN REVIEW

There were a number of developments during 2010 that had an impact on the telecommunications markets in New Zealand. Some of the more important developments are noted below:

January 2010

- Slingshot started requiring new broadband customers to rent their phone line from Slingshot to get the $10 a month discount rather than just purchase their tolls from Slingshot. Slingshot also introduced new lower broadband prices, including a $24.95 a month 256kbps broadband service with 2 GB of data.

February 2010

- 2degrees announced it had 206,000 subscribers (active within the prior 30 days) as at the end of January 2010. Fifty thousand or one quarter of the subscribers had come from other networks. Some 80% of the new customers had switched from Vodafone. Switching is relatively easy for Vodafone customers because it is just a SIM card swap.
- The Commerce Commission delivered its final report on mobile termination access services to the Minister for Communications and Information Technology. The report recommended that the Minister accept Telecom's and Vodafone's final undertakings as an alternative to regulation.
- The Commerce Commission commenced a review of the data transmission cost under section 30R of the Act. The data transmission cost is a component taken into account in determining the price of UBA.

March 2010

- Northpower opened up its layer 2 fibre network in Whangarei to local retail internet service provider Xf Net.
- Northpower announced it is rolling out a $500,000 residential expansion to its fibre network in Whangarei over four months. Retail services will be offered to end users by retail service providers, including Xf Net, TelstraClear, Uber Group, WorldxChange and others.
- Mobile data traffic surpasses voice globally according to data measurements taken from Ericsson from live networks around the world.
- Compass Communications starts offering services via UCLL in Auckland, Christchurch and Palmerston North.
- 2degrees lowered the price of its on-net texts to 2cents from 9 cents for the 30 days after customers top up.

April 2010

- In line with the mobile termination deeds, Telecom and Vodafone reduced their fixed-to-mobile residential rates on 1 April – Vodafone to 35.6 cents per minute and Telecom to 62 cents per minute.
- Vector announced it had completed a two year project which extended its fibre network creating a loop from North shore to West, South and east Auckland and back to the city centre, where the company already has an extensive fibre network.

- Telecom Wholesale and FX Networks confirmed announced they would exchange traffic at 19 of Telecoms points of interconnection around New Zealand.
- The Commission confirmed that if Telecom Wholesale were to employ VDSL technology to deliver the regulated bitstream service used to provide broadband, then it must do so on the regulated terms and conditions, including price. However, if Telecom Wholesale were to use VDSL technologies to deliver a service with specifications that do not fall within the regulated service (for example, a higher quality of service that is not covered by the existing regulation), then it may do so on a commercial basis.
- The Commerce Commission published its summary and analysis of Telecom NZ's first regulatory financial statement for the financial year ending 30 June 2009.
- Vodafone started offering a new voice add-on for some prepay plans that gave 200 minutes for $12. If all the minutes were used the cost would be 6 cents a minute and below current and then proposed wholesale interconnection prices. The Commission invited the Minister to consider the launch of the product in his assessment of whether Telecom's and Vodafone's mobile termination access services (MTAS) undertakings should be accepted. Vodafone later withdrew the plan.

May 2010

- Chorus hit half way on its cabinetisation project with 1800 cabinets fibre fed cabinets in operation.
- Telecom won a $150m deal to provide internet backhaul connections for Vodafone.
- Orcon increased the data caps for some of its residential broadband plans.
- Telecom reached a settlement with the Commerce Commission over potentially misleading advertising for its "Broadband at dial-up prices" campaign.
- TelstraClear started upgrading its cable network so it is capable of supporting DOCSIS 3 and delivering downloads at speeds of up to 100Mbps.
- Orcon, Compass and Callplus pool unbundled exchanges to increase the number of exchanges available to each company.
- 2degrees launched a $10 text pack giving 500 texts to any network. An initial offer two-for-one deal making the text pack 1,000 texts was later made permanent and the pack size eventually increased to 2,000 texts.
- The Commission published new information disclosure requirements that Telecom must follow when preparing its regulatory financial statements.
- Telecom axed its "Big Time" internet plan which let customers download as much as they were able for $69.95 a month.
- The Commission released its broadband quality report for July to December 2009 showing an improvement in web browsing speeds.

June 2010

- Telecom increased its off peak residential national calling charge rate by 26%, from 19cents to 24 cents per minute.
- Telecom increased the price of most of its monthly landline rental plans, wiring maintenance and service fees. The standard residential line rental applying outside Auckland, Wellington and Christchurch increased from $46.35 to $47.25 per month.
- Vodafone launched new talk Zone Zero Plus business plans that can offer unlimited calling for a fixed monthly fee.
- 2degrees introduced a prepay calling add-on giving 100 minutes a month for $30.
- TelstraClear announced it had completed migrating 75,000 customers to its upgraded cable broadband network.
- The Commission commenced the first review of the state of competition in relation to the Unbundled Bitstream Access (UBA) service.
- The Commission reached a settlement with Telecom NZ under which Telecom will notify and refund approximately $120,000 to 1300 customers who may have been misled by a "Get Telecom Broadband at Dial Up Prices" broadband promotion it conducted in 2008.
- After reconsideration the Commission recommended that the Minister for Communications and Information Technology regulate mobile termination access services (MTAS), and not accept undertakings from Telecom and Vodafone.

July 2010

- Digital Island, Telcoinabox and Zintel Cogent begin offering 3G mobile services to their customers with the launch of Telecom Wholesale's Mobile Virtual Network Operator (MVNO) service.
- Orcon launches a mobile service using Vodafone's network
- The Commission reached a $1.6 million settlement with Telecom NZ following an investigation launched after complaints from the telecommunications industry alleging that Telecom Wholesale's 'loyalty offers' breached Telecom's Separation Undertakings.
- Crown Fibre Holdings invited Respondents to refine their original proposals after amending UFB settings including requiring respondents to offer layer 2 (wholesale) services.

August 2010

- 2degrees launched its 3G network offering two sets of data deals. Customers in Auckland, Wellington, Christchurch and Queenstown using 2degrees network could purchase data packs ranging in price from NZ$20 for 512Mb (later increased to 1GB) for 30 days to NZ$150 for 10GB for 90 days (later increased to 12GB and 180 days). The NZ$6 for 50MB plan for handsets applies nationwide with roaming on the Vodafone NZ 3G network outside the 2degrees network area
- Vodafone launches a new range of SIM only on-account plans with a minimum contract period of one month.

- Vodafone starts offering a naked DSL (broadband without landline) at discounted prices for customers with an on-account mobile plan. Prices start at $45 per month for a 10GB plan served by an exchange that Vodafone has unbundled and $55 for other areas.
- The Minister for Communications and Information Technology accepted the Commission's recommendation to regulate mobile termination rates.

September 2010

- 2degrees launched on-account plans that allow customers to carry over unused minutes for up to 12 months.
- TelstraClear launched T-Box, a personal video recorder set-top box for its cable TV service. It can record up to 50 hours of HD television, up to 180 hours of standard television and will support the future delivery of on-demand video via the internet.
- SKY launched its new online TV service, iSKY, giving SKY subscribers access to online content streamed directly to personal computers. Vodafone, Orcon, Slingshot, Woosh, Xnet and Farmside are ISP partners who do not meter the broadband data consumed when using the iSKY service.
- The mobile termination access services (MTAS) became a designated access services under the Telecommunications Act 2001 on 24 September 2010.
- CFH announced a shortlist of partners for the UFB Initiative, and a priority list of three bidders it would be negotiating a first phase roll-out of the fibre network with. The three bidders. NorthPower (covering the Whangarei area); the Central North Island Fibre Consortium (covering Hamilton, Tauranga, Cambridge, Te Awamutu, Tokoroa, New Plymouth, Hawera and Wanganui); and Alpine Energy (covering Timaru) cover around 18% of New Zealand premises.
- Telecom Wholesale announced it was "soft-launching" its VDSL2 fast broadband service. VDSL2 will be run over copper phone lines connected to the recently deployed roadside cabinets and exchanges, after a technical trial. No date was set for the commercial service to go live.

October 2010

- TelstraClear revised the prices for its cable network customers with rises for lower users and reductions for higher users.
- Orcon increased the data allowances for some of its home + plans
- Telecom raised its residential prices to approximately cover the GST increase (not all telecommunications providers raised prices to cover the GST increase).
- Christchurch based Enable Networks reported a 235% increase in profit with highlights for the year including the connection 35 schools to its fibre network.
- The Commission launched an investigation into an alleged breach of the Separation Undertakings by Telecom to ascertain whether the terms on which the unbundled bitstream access (UBA) service (when taken in conjunction with the Sub-loop Extension Service (SLES)) is provided are discriminatory.

November 2010

- Telecom revealed that it previous financial year marked the first time the company's history that it laid more fibre than copper cable, with plans to lay a further 2,000 km of fibre in the current year.
- Vodafone started to upgrade and increase the speed of its HSPA + 3G network from 7.2Mbps to 28.8Mbps
- M2 buys fellow MVNO Black & White
- Telecom announced new data pricing available for XT customers roaming to Australia, US and UK which gives customers 100 MB of mobile data for $100.
- Telecom and Vodafone submit a joint response to the Rural Broadband Initiative.
- The Commission released its benchmarking report on NZ retail prices for fixed line and mobile telecommunications services that revealed NZ ranks in bottom third of the OECD or lower for fixed line calling.
- Vodafone introduced a mobile plan add-on giving 100 voice minutes for $35.

December 2010

- The Canterbury District Health Board picked Enable Networks to provide fibre connections to its 20 locations services and lift minimum connectivity speeds from 100Mbps to 1Gbps, and in some cases to 10Gbps.
- 2degrees launched the first 'all you can eat' mobile plan for individual users that allows unlimited calling for $149 a month.
- The Commission issued its preliminary view on mobile termination access services that the wholesale price for voice calls to a mobile network should be set at cost based benchmark, starting at 4.6cents per minute.
- The Commission decided that a new wholesale VDSL2 service to be offered by Telecom New Zealand Limited does not need to be regulated as it incorporates a number of features not included in the regulated UBA service, and it is appropriate that the market determines the price for this enhanced service.
- The Commission released its broadband quality report for January to June 2010 showing some further improvements in web browsing speeds.
- The Commission recommended to the Minister for Communications and Information Technology that a number of services that Telecom New Zealand Limited provides to other telecommunications companies to be resold should no longer be subject to the Telecommunications Act 2001.
- The Commission extended the current arrangements for number portability for both local and mobile telephone numbers for another six years in a final determination.
- The Commission released its final determinations for the period 1 July 2009 to 30 June 2010 on:
  - the cost of the Telecommunications Relay Service (TRS) for the hearing impaired; and

  - the proportion of the cost to be met by each party liable to contribute to the cost of the TRS and Telecom New Zealand's local residential telephone service obligation.

- The government proposed a number of changes to the Telecommunications Act 2001 set out in the Telecommunications (TSO, Broadband, and Other Matters) Amendment Bill in order to achieve its goals for faster broadband.

LIST OF DEFINED TERMS AND ABBREVIATIONS

Access Seeker	A retailer of telecommunications services who seeks to access to the services of the incumbent on a wholesale basis.
CDMA	Code Division Multiple Access – a US developed mobile phone standard. Originally second generation but upgraded to deliver third generation services to compatible handsets.
CPI	Consumer Price Index – an index used to measure inflation.
cpm	cents per minute
DSL	Digital subscriber line – method of transmitting high speed data and voice simultaneously over a copper phone line.
GSM	Global System for Mobile communications – a widely used digital, second generation mobile phone standard.
HHI	Herfindahl-Hirschman Index which is commonly accepted measure of market concentration. The maximum possible score is 10,000 which would be one seller with 100% market share.
IP	Internet Protocol – method that computers use to communicate over the internet
ISP	Internet Services Provider
ITU	International Telecommunication Union
MTAS	Mobile termination access services, which for the purposes of the Commission's recent MTAS investigation were mobile-to-mobile termination, fixed-to-mobile termination and termination of SMS messages.
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing Power Parity – exchange rate designed to equalise standard of living differences between countries, and is therefore generally accepted as an appropriate conversion method for non-tradable goods and services.
TCF	Telecommunications Carriers' Forum
SIM	Subscriber Identity Module – commonly known as a SIM card that contains a microchip that stores data that identifies the user, for use in GSM and compatible 3G mobile phones.
SMS	Short Message Service – commonly known as a text messaging, is a service for sending short messages between mobile devices.
STD	Standard Terms Determination – the terms on which a designated access or specified service must be supplied by access providers to all access seekers

	requesting the service.
Telecom	Telecom Corporation of New Zealand Limited and Telecom New Zealand Limited
TSO	Telecommunications service obligations – an obligation to supply certain telecommunications services to groups of end-users who may not otherwise be supplied on a commercial basis or at a price that is considered to be affordable.
UBA	Unbundled Bitstream Access – a regulated service giving wholesale access to Telecom's DSL full speed broadband service although a commercial variant with a slower speed is also available.
UBS	Unbundled Bitstream Service – a service no longer regulated that gives wholesale access to Telecom's DSL broadband service. When regulated, the service had its upstream speed limited to 128 kbps.
UCLL	Unbundled Copper Local Loop – wholesale access to the copper line connecting a phone user to the local exchange.
UMTS	Universal Mobile Telecommunications System (UMTS) – the 3G successor to the 2G GSM standard. The most common form of UMTS uses WCDMA as the underlying air interface.
VoIP	Voice over Internet Protocol – a way of sending voice calls over a data connection like a broadband connection.
WCDMA	Wideband Code Division Multiple Access – a third generation mobile phone standard often provided as a progression from the GSM standard.