

# **International Price Comparison for Retail Fixed-line Telecommunications Services 2013**

**Telecommunications monitoring report**

Date: 23 December 2013

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### Exchange Rate

All foreign prices are converted to \$NZ using OECD purchasing power parity (PPP) exchange rates.

## **Executive summary**

The purpose of the report is to compare New Zealand's retail prices for fixed-line voice and broadband services, at a fixed point in time, with those applying in other similarly developed countries. Comparing prices of telecommunications services in New Zealand with those paid overseas gives an indication of the relative competitiveness of New Zealand telecommunications markets.

The results of the price comparisons are summarised for each of the following fixed-line services:

- broadband plus voice bundles as at June 2013
- naked broadband services as at June 2013
- stand-alone voice services as at August 2013.

The Commission plans to report on international retail price comparisons for mobile services in February 2014.

## Broadband

Broadband bundled with a conventional phone service is now how most consumers purchase fixed-line broadband and voice services. The bundled price for a phone plus 30GB of broadband delivered over copper lines or cable at the regular speed of 10 to 15Mbps, was 10% higher than the international benchmark average and 25% higher than Australia. This basket has a little more data than that used by the average fixed-line broadband user in New Zealand, but is the lowest amount of data now offered by the main retailers.

Naked broadband, where broadband is supplied without any voice service, appears more competitively priced. The 30GB basket is priced at 6% less than the international benchmark average and 9% less than Australia. However, only customers with an on-account mobile plan can currently get a naked broadband service at the benchmarked price in New Zealand.

The 60GB baskets were the only broadband baskets benchmarked previously in September 2011. In under two years the price of the 60GB broadband plus voice basket dropped by 14%, and the price of the 60GB naked broadband basket dropped by 41%.

Few consumers have access to broadband delivered over fibre, but the relative pricing is a topical issue. It is also less usual internationally for fibre to be bundled with just a voice service like the Telecom fibre plus voice service benchmarked for New Zealand.

For fibre, a low speed service is considered to be 30Mbps downstream. For the fibre broadband plus voice basket with a 30Mbps speed and 30GB of data, the New Zealand price was 10% above the benchmark set average and 5% less than Australia.

Full speed for a residential fibre broadband service is considered to be 100Mbps, and such a service would be expected to come with a generous amount of data of at least 150GB. For the basket with these specifications and a voice service, the New Zealand price was 50% above the benchmark set average and 38% above the Australian price. The results are summarised in Table 1.

**Table 1: Summary of fixed-line broadband benchmarking**

| Broadband basket   | NZ rank | June 2013 price (NZD PPP) |       |         | NZ % price var. from |         |
|--|---------|---------------------------|-------|---------|----------------------|---------|
|  |         | NZ                        | Aust. | Average | Aust.                | Average |
| Broadband + voice<br>30GB 10Mbps (DSL, cable)            | 17/28   | 75                        | 60    | 68      | +25%                 | +10%    |
| Naked broadband <sup>1</sup><br>30GB 10Mbps (DSL, cable) | 16/34   | 55                        | 60    | 59      | -9%                  | -6%     |
| Broadband + voice<br>30GB 30Mbps fibre                   | 14/19   | 95                        | 100   | 86      | -5%                  | +10%    |
| Broadband + voice<br>150GB 100Mbps fibre                 | 14/15   | 139                       | 100   | 93      | +38%                 | +50%    |

<sup>1</sup> In New Zealand the price is discounted if an on-account mobile plan is also purchased. This effectively means a mobile voice service is also purchased but the services are not sold together for one bundled price.

## Voice

The price of a fixed-line stand-alone voice service in New Zealand remains one of the highest in the OECD for baskets close to average New Zealand residential usage. The price for the 60 calls basket was 43% above the OECD average and 4% above Australia.

For heavy users of voice services, the price has improved with New Zealand pricing for the 420 calls basket now a little under the OECD average and the price in Australia. The price of this basket has dropped by a third since 2011.

New Zealand continues to have a high minimum monthly line rental, which is a legacy of the TSO<sup>2</sup> (formerly Kiwi Share) and its requirement for unlimited local calling. However, it appears competition from fixed-line and mobile voice services has largely halted line rental increases. Telecom has not raised its \$50 standard residential monthly line rental applying outside the three main centres since June 2011, even though increases for inflation are permitted.

The price of voice services for small businesses in New Zealand appears favourable, with the 260 calls business basket priced at 1% less than the OECD average and 17% less than Australia.

The voice benchmarking results are summarised in Table 2.

**Table 2: Summary of OECD fixed-line voice benchmarking**

| Voice basket                 | NZ rank | June 2013 price (NZD PPP) |       |              | NZ % price var. from |              |
|------------------------------|---------|---------------------------|-------|--------------|----------------------|--------------|
|                              |         | NZ                        | Aust. | OECD average | Aust.                | OECD average |
| 60 calls and line rental     | 34/34   | 71                        | 68    | 50           | +4%                  | +43%         |
| 420 calls and line rental    | 21/34   | 111                       | 117   | 116          | -5%                  | -4%          |
| 260 calls and line, business | 19/33   | 114                       | 137   | 115          | -17%                 | -1%          |

Source: Teligen

<sup>2</sup> Local Residential Telephone Service Telecommunications Service Obligation.

## Introduction

### Purpose

The purpose of this report is to compare New Zealand's fixed-line retail prices for voice and broadband services at a fixed point in time against those in other similarly developed countries. The comparison of stand-alone voice services was as at August 2013 and the comparison of broadband bundles was at June 2013. The comparisons should give some indication of the competitiveness of New Zealand telecommunications markets. The report is published to inform consumers, policy makers and the industry.

### Empowering legislation

This report is released under section 9A of the Telecommunications Act 2001, which requires the Commission to monitor telecommunications markets and generally make available reports, summaries, and information resulting from the monitoring.

### Data

The price comparisons used by the Commission are based on data collected by Teligen.<sup>3</sup> The Teligen services that were purchased to conduct the benchmarking are summarised in the table below.

| Service  | Teligen product                         |
|--|---|
| Fixed-line stand-alone voice services                      | OECD Fixed Voice Price Benchmarking     |
| Fixed-line broadband services including bundles with voice | OECD Fixed Broadband Price Benchmarking |

The benchmarking results have been generated using OECD calculated purchasing power parity (PPP) exchange rates.<sup>4</sup> The use of PPP rates is preferable to using spot exchange rates as PPP rates are a more stable measure.<sup>5</sup> To enable ready comparison to retail prices, we are now including GST/VAT in the price of residential services, but excluding installation and other similar one-off charges, which we found to not be particularly reliable. The overall effect on the rankings is not material. Tax remains excluded from the price of business services.

### Benchmarking approach

The Commission has benchmarked monthly retail prices for fixed-line and mobile telecommunications services, with a focus on residential<sup>6</sup> and small business customers.

Medium to larger businesses usually negotiate a discounted and confidential price for a bundle of telecommunications services, making benchmarking for this group more difficult.

Fixed-line voice comparisons were conducted using OECD consumption baskets. Details of publicly available retail telecommunications plans are used to calculate the lowest price to fill each OECD usage basket in each OECD country.

<sup>3</sup> <http://www.teligen.com>.

<sup>4</sup> See <http://www.oecd.org/dataoecd/48/18/18598721.pdf>.

<sup>5</sup> There is still some imprecision when comparing telecommunication prices between countries using general OECD PPP rates which were based on a 2008 survey and updated using a measure of general inflation.

<sup>6</sup> Businesses run from home, including farms, are often treated as residential customers.

Fixed-line broadband comparisons used the selection of countries surveyed by Teligen, which is made up of OECD and OECD-like countries. Consumption baskets were selected based on New Zealand usage patterns and previous benchmarking. The significant increase in data consumption over the last few years has limited the year-on-year comparisons that can be made.

The results of retail price benchmarking of telecommunications services should be interpreted with caution as they can be affected by a number of factors. A range of these factors are outlined and briefly discussed in Attachment 1.



## Retail fixed-line services

### Background

Telecom New Zealand is the largest retailer of fixed-line services in New Zealand. It is the former, originally state owned, incumbent and still the only retailer with the equipment to supply its own analogue voice services nationwide.

After separation from Telecom on 30 November 2011, Chorus became the owner of the only nationwide fixed-line local access network able to supply fixed-line services to telecommunications retailers.

In purchasing TelstraClear in October 2012, Vodafone gained a competing fixed-line access network that covers most of Wellington and Christchurch. Vodafone also supplies many other fixed-line services through the purchase of inputs from Telecom and Chorus, making it clearly the second largest retailer of fixed-line services in New Zealand.

In 2008 Chorus, then Telecom's access network arm, commenced local loop unbundling, as required, enabling Telecom's competitors to lease unbundled copper local loops (UCLL) to provide their own voice and DSL (copper based) broadband services. Most urban exchanges have now been unbundled. However, a satisfactory DSL broadband service cannot usually be provided from the exchange to end-users who are served via roadside cabinets, which is around 50% of end-users. In this situation, unbundlers can buy a copper sub-loop extension service to provide the voice service from the exchange and purchase a UBA service (explained further below) to provide DSL broadband from the cabinet. Telecom is currently prohibited from undertaking unbundling.

Rather than undertaking unbundling to provide a voice service, fixed-line retailers can resell a Telecom PSTN voice line obtained from Chorus (under an agency arrangement with Telecom) at a small discount to the retail price<sup>7</sup> or, where available, buy a baseband service from Chorus that allows them to provide their own PSTN voice service. Sometimes retailers use Voice over Internet Protocol (VoIP) to deliver a digital voice service over the broadband connection. The best known example is probably Orcon's *Genius* service, which provides a VoIP service together with 30GB of broadband data for \$75 a month.

To provide a retail DSL broadband service without unbundling, a wholesale bitsream service (UBA) can be purchased from Chorus. This is currently priced at a discount to historic Telecom retail prices, but current legislation provides for the price to move to being cost based in December 2014.

For fibre, the UFB project has set some standard wholesale prices for fibre services to be provided by the contracted UFB network owners. This is Chorus in most of the country, NorthPower in Whangarei, Ultra Fast Fibre led by WEL Networks in Hamilton, Tauranga, Tokoroa, New Plymouth, Hawera and Whanganui, and Enable Networks in Christchurch.

Where fibre has been rolled out, wholesale fibre services can be purchased by retailers to provide fibre broadband services to end-users at a variety of speeds and data caps.

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<sup>7</sup> The discount is at least 5% less than the price charged for by Telecom Retail.

## Broadband

DSL broadband pricing in New Zealand is typically based on the amount of data included with the plan rather than the speed (which is usually the differentiator overseas), as all New Zealand plans tend to be full speed.<sup>8</sup> More recently some retailers have started offering VDSL plans which, for a premium, offer a higher speed for subscribers not living too far from an exchange or cabinet.

Fibre broadband services of varying speeds are also starting to be offered, but are only available in the areas where fibre has been rolled out. The number of retail fibre broadband connections was 10,000 as at 30 June 2013.

The amount of data offered with a residential broadband plan has increased significantly in recent years and now usually ranges from 30GB to 500GB per month, with some plans offering an unlimited amount of data.

The Commission has benchmarked New Zealand's fixed-line broadband prices against the group of OECD and OECD-like countries monitored by Teligen. Teligen collect data on the plans offered by several providers in each country. Countries are excluded from the Commission's benchmark set if there is no comparable service or the results are significantly outside the range of the rest of the results, suggesting the service benchmarked is not a reasonable comparator.

Due to the ongoing restructuring of the broadband plans by providers to provide more data to meet increasing consumer demand, the consumption baskets used for price comparisons have been adjusted upwards significantly since the last retail benchmarking in 2011. The low user basket was increased the most, going from 2GB to 30GB because 30GB is now the smallest amount of data available in a fixed-line broadband plan from the main retailers.

The revised baskets are shown in Table 3 below.

**Table 3: Fixed-line broadband usage baskets**

| User type                | Data usage per month | Minimum downstream speed <sup>9</sup> |
|--------------------------|----------------------|---------------------------------------|
| Low user copper based    | 30GB                 | 10Mbps                                |
| Medium user copper based | 60GB                 | 10Mbps                                |
| High user copper based   | 150GB                | 10Mbps                                |
| Low user fibre based     | 30GB                 | 30Mbps                                |
| High user fibre based    | 150GB                | 100Mbps                               |

On average, New Zealand broadband subscribers use 23GB of data per month,<sup>10</sup> making the 30GB medium usage basket most representative of New Zealand consumers. A third of all broadband subscribers now have data caps of 50GB or more, or have no data cap at all.<sup>11</sup>

<sup>8</sup> This means as fast as all the components in the network will allow, subject to any limitations imposed by shared bandwidth.

<sup>9</sup> Compliance with the downstream speed requirement is assessed based on the maximum obtainable speeds listed for each plan. Actual speeds may differ from speeds listed for a number of reasons, such as customer premises wiring and distance from the local telephone exchange.

We have primarily benchmarked the price of broadband when bundled with a voice service because that is now how most consumers purchase fixed-line broadband in New Zealand. Overseas, 'double play' offerings that include only broadband and voice are not as prevalent, so comparisons are not available for the full range of countries surveyed by Teligen.

We have also benchmarked the retail price of naked broadband (broadband purchased without having a voice service) due to the increasing popularity of this service. A greater range of countries have comparable naked broadband services to benchmark.

The availability of fibre broadband services is still limited geographically in most countries compared to broadband delivered over copper or cable networks. Fibre broadband plans were, therefore, left out of the general broadband benchmarking, but cable plans were included as cable is widely available in some countries.

We attempted to separately benchmark the retail price of fibre broadband services because of the increasing interest in fibre services. However, Teligen included only Telecom's retail fibre broadband plus voice bundles in their dataset of New Zealand residential plans. This meant the only international comparisons that could be made were with other fibre broadband plus voice bundles. This significantly reduced the number of comparators.

#### Fixed-line broadband benchmarking results

The results from benchmarking fixed-line broadband (DSL or cable) plus voice services, comparing New Zealand to Australia and the average for the benchmark set are show in Table 4 below.

**Table 4: Results of fixed-line broadband + voice benchmarking**

| Broadband + voice basket  | NZ rank | June 2013 price (NZD PPP) |       |         | NZ % price var. from |         |
|---------------------------|---------|---------------------------|-------|---------|----------------------|---------|
|                           |         | NZ                        | Aust. | Average | Aust.                | Average |
| 30GB 10Mbps (DSL, cable)  | 17/28   | 75                        | 60    | 68      | +25%                 | +10%    |
| 60GB 10Mbps (DSL, cable)  | 22/27   | 90                        | 65    | 69      | +38%                 | +30%    |
| 150GB 10Mbps (DSL, cable) | 24/27   | 99                        | 80    | 74      | +23%                 | +33%    |
| 30GB 30Mbps fibre         | 14/19   | 95                        | 100   | 86      | -5%                  | +10%    |
| 150GB 100Mbps fibre       | 14/15   | 139                       | 100   | 93      | +38%                 | +50%    |

Source: Teligen

New Zealand prices for broadband plus voice bundles were always above the average of the benchmarked set of countries, although only 10% above average price for the 30GB DSL and cable basket, and also for 30GB 30Mbps fibre basket.

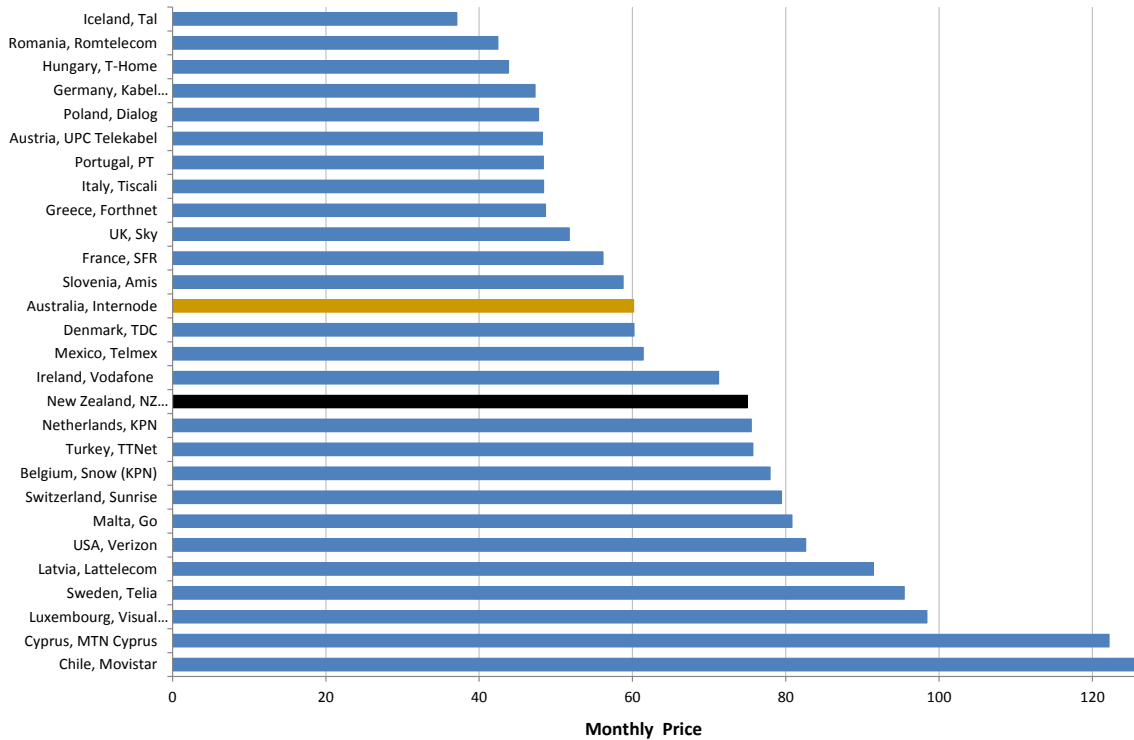
<sup>10</sup> Statistics New Zealand "Internet Service Provider Survey: 2013 - tables" table 7.

<sup>11</sup> Statistics New Zealand "Internet Service Provider Survey: 2013 - tables" table 5.

The more data in the bundle, the more New Zealand sits above the average. Some of this differential could be attributable to price discrimination by retailers to recover the relatively high wholesale costs of providing a voice plus broadband retail service. Only the wholesale price of unbundled lines is currently cost based.

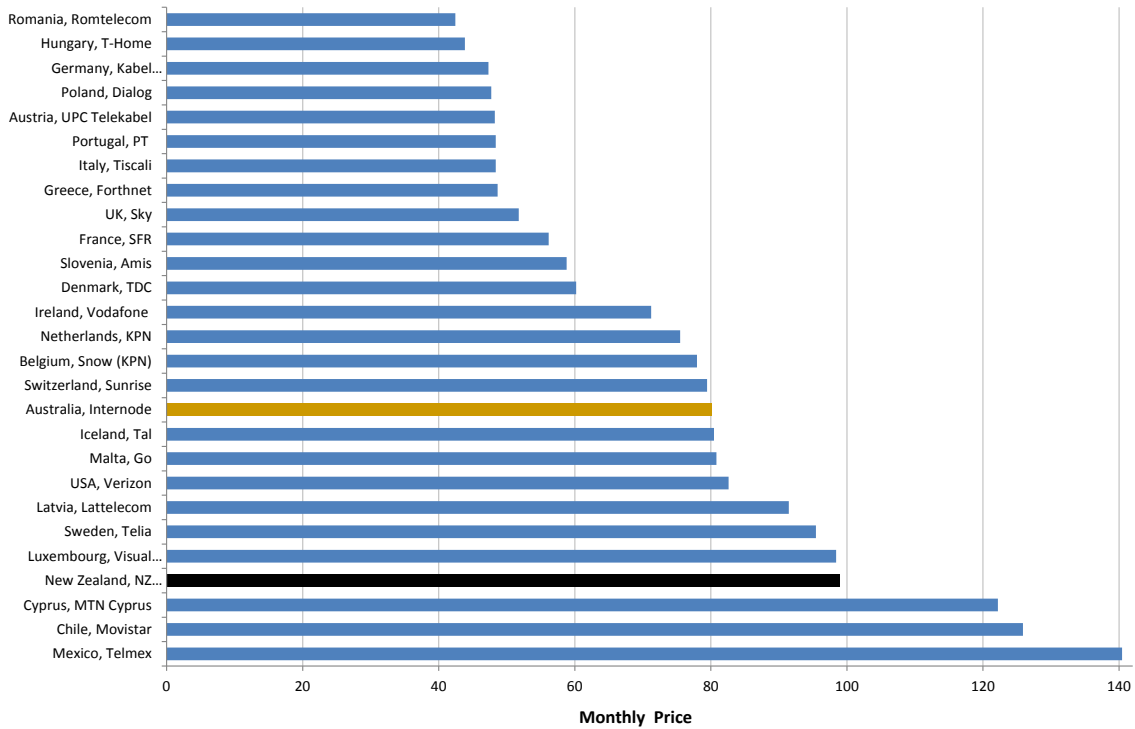
The following figures give a graphical representation of how New Zealand pricing of broadband plus voice bundles for selected baskets compared to other countries in the benchmark set.

**Figure 1: Fixed-line 30GB broadband + voice basket results**



Source: Teligen

New Zealand is just past mid-way down the chart for the 30GB broadband plus voice basket. The plan giving the New Zealand benchmark is Telecom's 30GB Everyday Local Calling broadband plan at \$75. The benchmarked Australian plan is from provider Internode, while the closest plan from Telstra was its Elite Liberty 50GB with a price of \$NZ PPP 84.

**Figure 2: Fixed-line 150GB broadband + voice basket results**

Source: Teligen

New Zealand does worse in the high user 150GB broadband plus voice basket chart, shown in Figure 2, ending up close to the bottom. Again, the New Zealand benchmark was given by a Telecom plan – this time the 150GB Everyday Local Calling broadband plan at \$99 (in Auckland, Wellington and Christchurch). Similarly, the Australian benchmark was again an Internode plan, while the closest plan from Telstra was Elite Liberty 200GB with a price of \$NZ PPP 122.

### ***Naked broadband***

The results from benchmarking fixed-line naked broadband (DSL or cable) services, comparing New Zealand to Australia and the average for the benchmark set are shown in Table 5 below.

**Table 5: Results of fixed-line naked broadband benchmarking**

| Naked broadband basket    | NZ rank | June 2013 price (NZD PPP) |       |         | NZ % price var. from |         |
|---------------------------|---------|---------------------------|-------|---------|----------------------|---------|
|                           |         | NZ                        | Aust. | Average | Aust.                | Average |
| 30GB 10Mbps (DSL, cable)  | 16/34   | 55                        | 60    | 59      | -9%                  | -6%     |
| 60GB 10Mbps (DSL, cable)  | 15/33   | 56                        | 65    | 58      | -20%                 | -4%     |
| 150GB 10Mbps (DSL, cable) | 24/33   | 75                        | 80    | 61      | -7%                  | +24%    |

Source: Teligen

New Zealand's prices for naked broadband are more competitive, being below average for the 30GB and 60GB baskets. However, the particular plans benchmarked were Vodafone plans not available to everyone. The 30GB basket used the Vodafone Choice naked DSL plan that offered 50GB over a copper line for \$55 (a \$30 discount) for customers with an on-account Vodafone

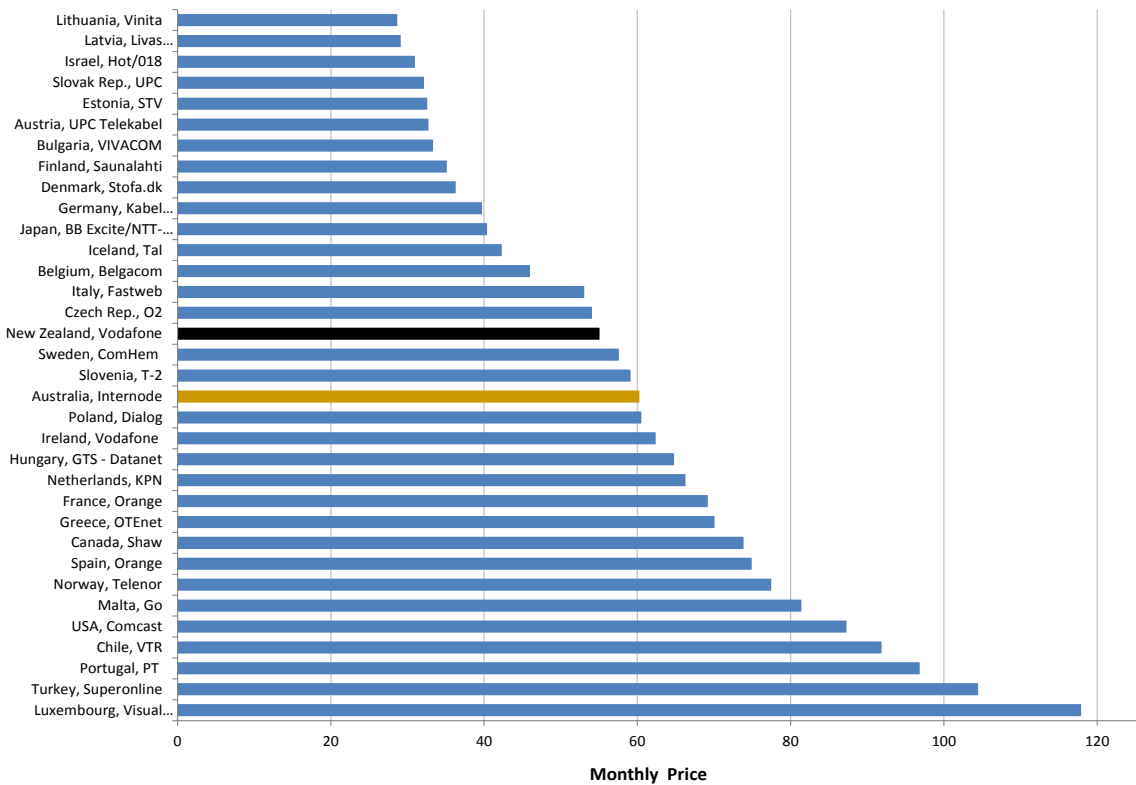
mobile plan. An updated version of this plan is still available, and Telecom now offers a similar discount for naked broadband for customers with a mobile plan.

The 60GB basket used the Vodafone LightSpeed 15Mbps 60GB naked cable broadband plan that was offered to new customers with access to its cable network, but the plan has now been grandfathered<sup>12</sup> and only higher speed 50Mbps naked broadband cable plans are now available. We note that currently the cheapest naked DSL broadband plan giving more than 30GB of data without needing a mobile plan we are aware of is Compass Naked Broadband 50GB at \$59.95, but it appears to be only available at that price in areas where Compass has unbundled the local exchange.

If the retailer is not using an unbundled line, the current wholesale price for the UBA input required to supply naked broadband is \$45 (excluding GST). In addition, the retailer also has to purchase local and international backhaul.

The following figures give a graphical representation of how New Zealand pricing of naked broadband plans for selected baskets compares to other countries in the benchmark set.

**Figure 3: Fixed-line 30GB naked broadband basket**

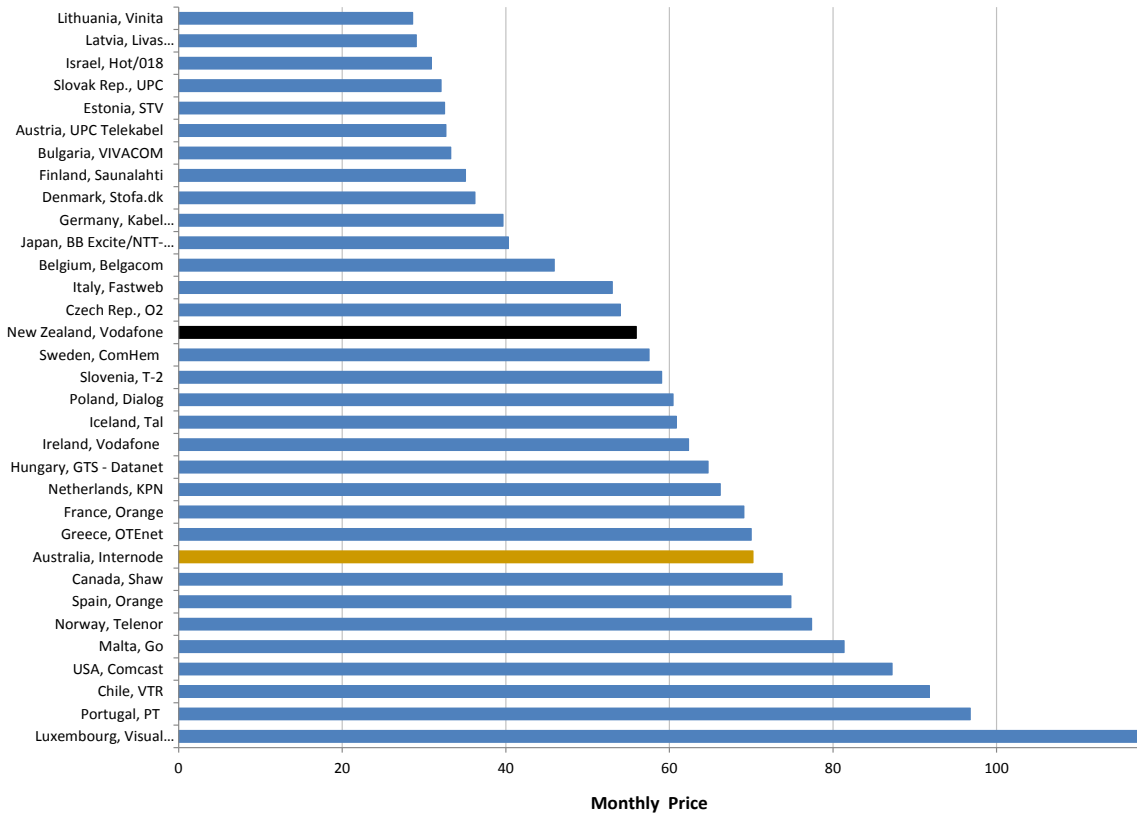


Source: Teligen

New Zealand is a few places ahead of Australia in the 30GB basket, with a naked broadband plan from Vodafone that is discounted by \$30 from \$85 to \$55 for subscribers with an on-account mobile plan.

<sup>12</sup> This means the plan continues to be available for existing customers but is not being offered to new customers.

**Figure 4: Fixed-line 60GB naked broadband basket**



Source: Teligen

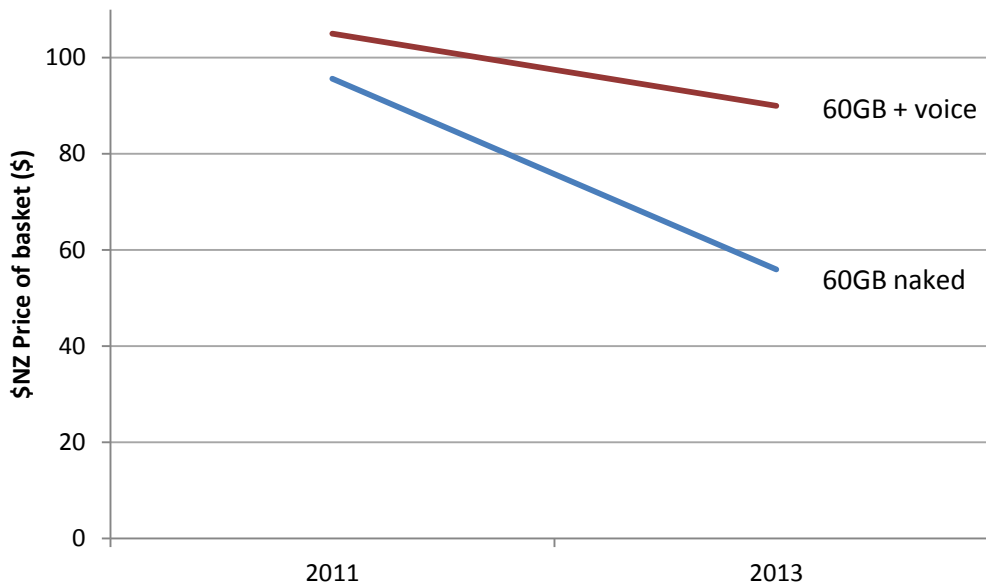
New Zealand is further ahead of Australia in the 60GB naked broadband basket, although still only a little ahead of the average for the benchmark set. As mentioned above, the benchmarked plan for New Zealand was a Vodafone cable plan that was, at the time, being offered to new customers at a reduced price of \$55.95. However, the naked broadband plan offered by Vodafone to customers with on-account mobiles for \$55 per month had its data cap increased to 80GB since the June benchmarking by Teligen, which means it could now be used to fill the 60GB basket as well.

### Time series results for fixed-line broadband

Tracking benchmarking results over time gives an indication of how markets are changing. However, the rapidly changing nature of broadband services and the intermittent purchases of benchmarking services by the Commission limited the time series data available.

We have compared the fixed-line broadband benchmarking results for New Zealand for the two 60GB baskets, which were the only baskets benchmarked in both September 2011 and June 2013. The \$NZ prices are tracked to see how prices are trending in \$NZ terms. These are shown in Figure 5.

**Figure 5: Trend in 60GB broadband baskets \$NZ prices**



There has been a moderate reduction in the price of the 60GB broadband plus voice basket in a little under two years from \$105 to \$90, a fall of 14%. Since the June benchmarking the price has dropped further to \$85. There has been a more substantial reduction in the price of the 60GB naked broadband basket from \$96 to \$56, a fall of 41%. However, as noted earlier, there are restrictions on the availability of 'cheap' naked broadband services.



## Voice services

In order to enable cross-country comparisons of retail prices for fixed-line voice services, the OECD has developed a number of standardised consumption baskets. These baskets each include a certain number of local, national, international and fixed-to-mobile calls of specified lengths. The baskets were based on actual traffic data and consumption data collected from operators and regulators in the OECD member countries.

For OECD fixed-line voice benchmarking, Teligen generally collects data from the largest fixed-line operator in each OECD country, which is Telecom in New Zealand. Details of publicly available stand-alone voice plans are used to calculate the cheapest price to fill each usage basket in each OECD country.

The ranking for each usage basket is driven by the fixed monthly price of accessing a telephone line<sup>13</sup> and the variable price for the different call types included in the basket.

A high-level summary of selected OECD fixed-line usage baskets used and how they compare to estimated average residential consumption in New Zealand is shown in Table 6 below.

**Table 6: Fixed-line OECD usage baskets**

| Basket<br>(calls per month)               | Call minutes per month |          |                     |               | Total minutes<br>in basket |
|---|------------------------|----------|---------------------|---------------|----------------------------|
|   | Local                  | National | Fixed-to-<br>mobile | International |                            |
| 60 calls                                  | 105                    | 45       | 26                  | 14            | 190                        |
| 140 calls                                 | 298                    | 125      | 63                  | 32            | 518                        |
| Estimated average<br>NZ residential usage | 260                    | 44       | 53                  | 9             | 367                        |
| 420 calls                                 | 1,368                  | 474      | 70                  | 56            | 1,968                      |
| 260 calls business                        | 250                    | 152      | 116                 | 87            | 605                        |

In its benchmarking, the Commission has concentrated on the OECD usage baskets, which are most likely to suit New Zealand consumption patterns of those households who buy a stand-alone fixed-line voice service. Estimated residential consumption based on 2011/12 and 2012/13 data indicates that the 140 calls basket is closest to the average New Zealand residential consumption of local calls, but the 60 calls basket is closest to New Zealand residential consumption of non-local calls.

Anecdotal evidence indicates that many households now make very little use of their home phone for conventional voice calls. However, such households are likely to purchase this voice service as part of a bundle with broadband, which effectively discounts the price they pay for the voice service. For example, most telecommunications retailers now offer a voice and broadband bundle with at least 30GB of data for \$75 a month or less. Around half that price could be reasonably attributed to the voice service, \$37.50, compared to the \$46 standard residential line rental

<sup>13</sup> The monthly line rental and amortised connection cost.

charged by Telecom in Auckland, Wellington and Christchurch, and \$50 elsewhere. The Commission estimates that around 70% of households with a fixed-line are now buying voice services as part of a bundle with broadband.

Many households make free voice and/or video calls over the internet using so called 'over-the-top' services such as Skype.

Those households still making a lot of conventional fixed-line calls, for example talking to a close friend or family member on the phone every day, are probably more likely to be those households still buying a stand-alone voice service. The 420 calls basket has 1,368 minutes of local calls each month, which is about 45 minutes a day.

### OECD fixed-line voice benchmarking results

The results of OECD fixed-line voice benchmarking comparing New Zealand to Australia and the OECD average are shown in Table 7 below.

**Table 7: Results of OECD fixed-line voice benchmarking**

| Voice basket       | NZ rank | Aug 2013 price (NZD PPP) |       |              | NZ % price var. from |              |
|--------------------|---------|--------------------------|-------|--------------|----------------------|--------------|
|                    |         | NZ                       | Aust. | OECD average | Aust.                | OECD average |
| 60 calls           | 34/34   | 71                       | 68    | 50           | +4%                  | +43%         |
| 140 calls          | 31/34   | 101                      | 114   | 75           | -11%                 | +35%         |
| 420 calls          | 21/34   | 111                      | 117   | 116          | -5%                  | -4%          |
| 260 calls business | 19/33   | 114                      | 137   | 115          | -17%                 | -1%          |

Source: Teligen

New Zealand largely ranks poorly on the price of its fixed-line residential voice services in comparison to other OECD countries. Performance against Australia is better only because Australia is also a poor performer.

New Zealand's residential basket prices are considerably higher than the OECD average for an average amount of calling, with New Zealand being the worst in the OECD for the 60 calls basket and 31<sup>st</sup> out of 34 for the 140 calls basket. The poor ranking is largely driven by the high monthly line rental charged in New Zealand, which in turn has largely been driven by the TSO price cap, which allowed line rental to increase by the CPI every year.

The benchmarked price uses Telecom's residential line rental and standard calling rates charged for a voice service without broadband in Auckland, Wellington and Christchurch. The line rental for the three main centres increased in 2013 to \$46 a month while the line rental for elsewhere in the country stayed at \$50 a month, and has not been raised since June 2011 when it was raised in line with inflation as allowed by the TSO deed.

The fact that Telecom has not taken the opportunity to raise its standard residential line rental since 2011, when previously it has raised it by inflation almost every year, suggests that competition from alternative voices services such as mobile is now constraining the price of the fixed-line voice service. This may eventually lead to an improvement in New Zealand's OECD

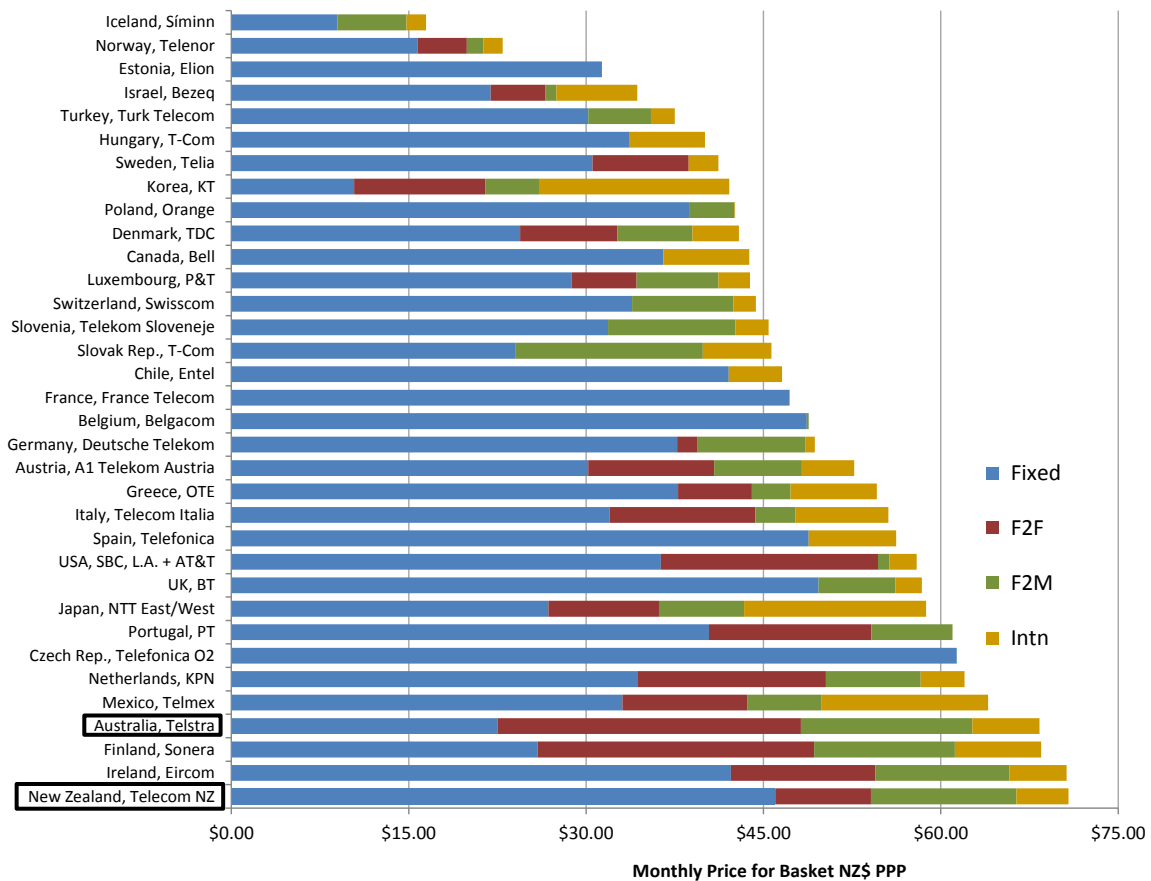
ranking for voice pricing, although as mentioned previously, only a minority of households pay the stand-alone voice price.

New Zealand prices are around the average for the much higher amount of calling provided by the 420 calls basket. The Telecom Everyday National Calling plan, which includes unlimited national calling in addition to the standard line rental for \$60 a month, was used to fill this basket.

Benchmarking results for the 260 calls business basket indicate that the price faced by New Zealand small businesses for a fixed-line phone that is used for a moderate number of voice calls was somewhat cheaper than Australia and about the same as the OECD average.

The following figures give a graphical representation of how New Zealand pricing for selected baskets compares to other OECD countries. The components of the pricing are also shown, with New Zealand having one of the higher fixed monthly prices (being line rental) for a smaller to average amount of calls.

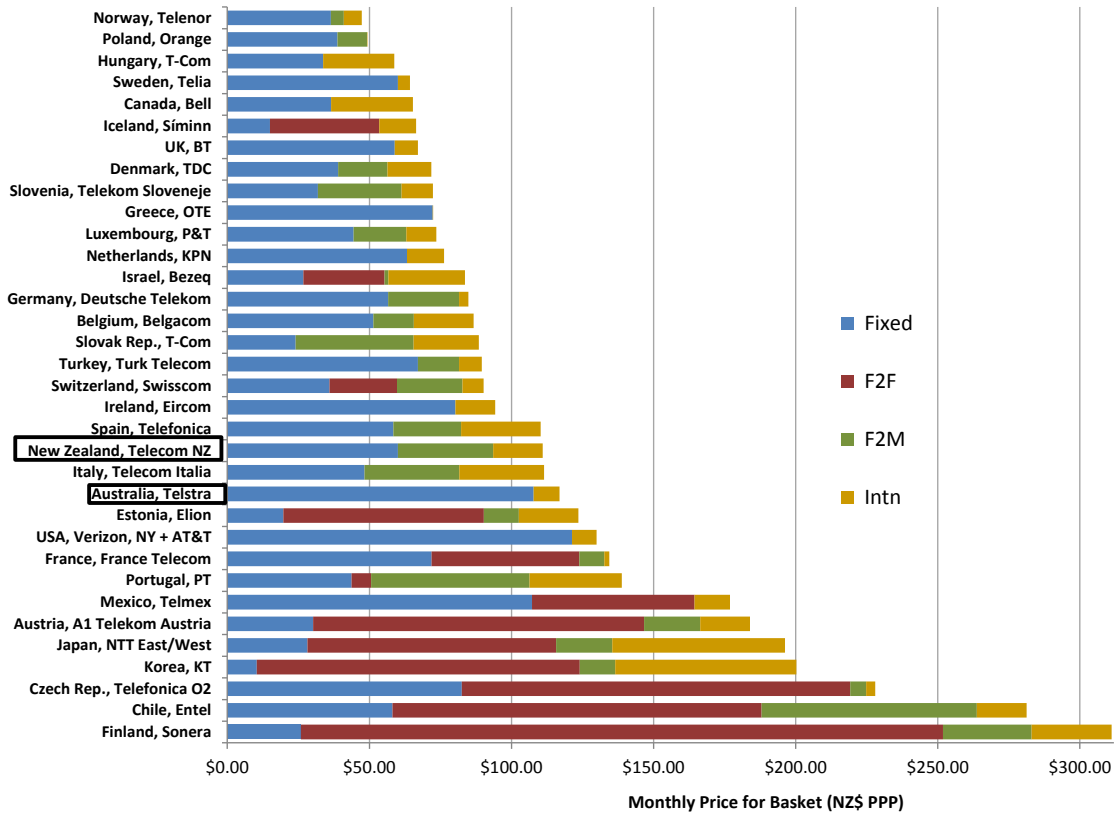
**Figure 6: OECD fixed-line voice - 60 calls basket**



Source: Teligen

New Zealand is at the very bottom of the Figure 6 chart, with the monthly line rental of \$46, shown by the blue portion of the bar, making up a large portion of the total monthly price. It can be seen that the few countries with a higher fixed monthly charges include some elements of calling in the fixed charge because of the absence of one or more of variable local and national calling charges (shown in red), fixed-to-mobile calling charges (shown in green) or international calling charges (shown in yellow).

Figure 7: OECD fixed-line voice - 420 calls basket



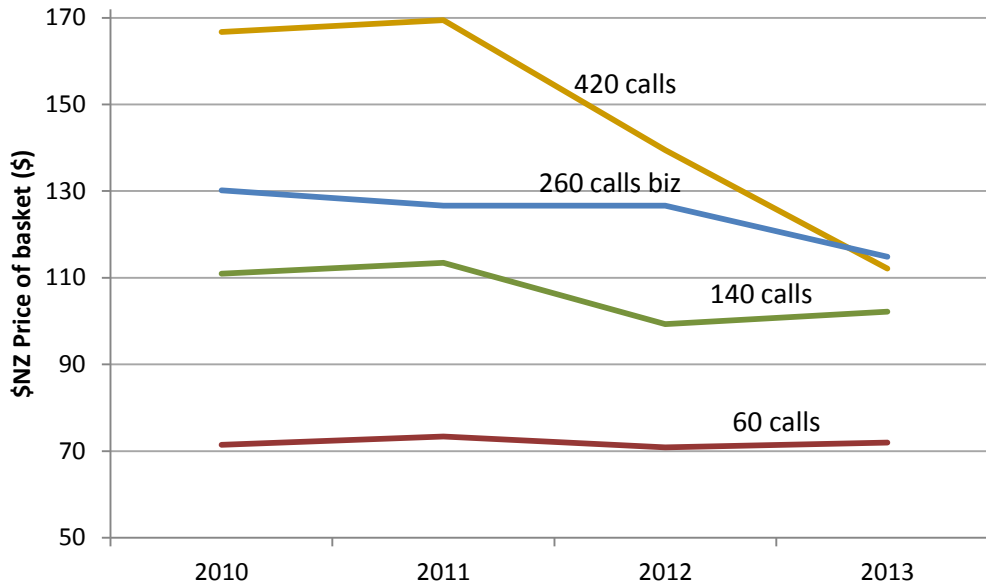
Source: Teligen

New Zealand is just below the mid-point of the Figure 7 chart. For 420 calls, the fixed monthly charge makes up a lower portion of the total price and looks around average compared to the other countries. It includes all national calls, which is illustrated by the absence of red on the New Zealand bar.

### Time series results for fixed-line voice

We have tracked the OECD fixed-line voice benchmarking results for New Zealand for four years. The nominal \$NZ prices are tracked over time to see how prices for the various baskets are trending in \$NZ terms. These are shown in Figure 8.

**Figure 8: Trend in fixed-line voice basket \$NZ prices**



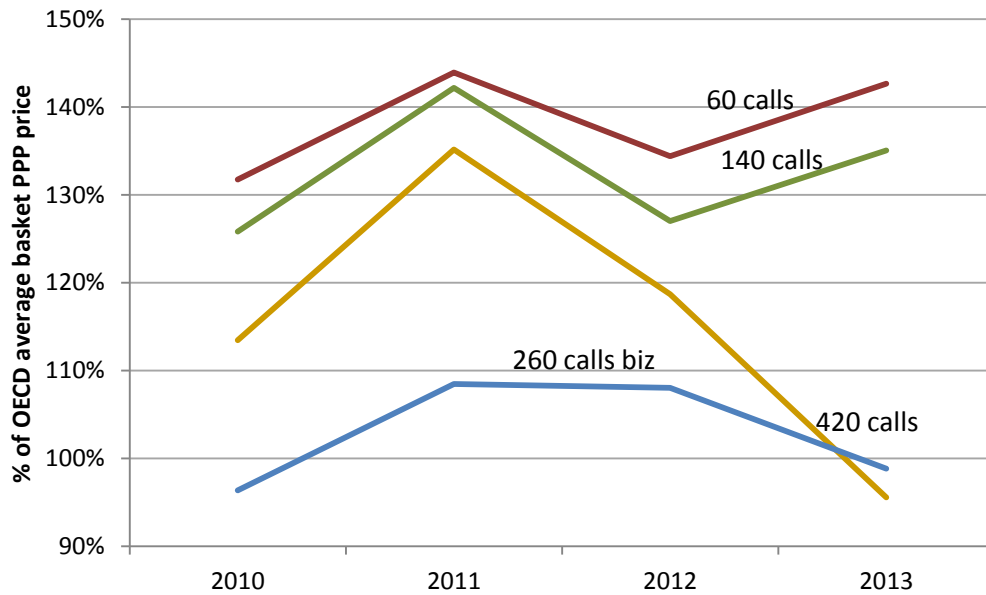
Source: Teligen

There has been very little change in the total price for the 60 calls basket while there has been a moderate reduction in the price of the 140 calls and 260 calls business baskets from new plans becoming available.

The price of the 420 calls basket has fallen dramatically because of the larger savings offered to heavy callers from a new plan, Everyday National Calling, which is the service benchmarked as mentioned previously. Between 2011 and 2013 the price for the basket fell by a third.

The New Zealand voice results can also be compared to the OECD averages using PPP exchange rates. These are tracked over time in Figure 9.

**Figure 9: Trend in fixed-line voice basket compared to OECD average**



Source: Teligen

New Zealand's performance against the OECD average is somewhat volatile, being affected by changing PPP exchange rates. There is a general worsening trend for lower to moderate levels of calling. However, the 420 calls basket has shown a marked improvement since 2011 because of its significant reduction in price. The 260 calls business basket price has fluctuated around the OECD average.

## Attachment 1 - Factors affecting the results of retail price benchmarking

| Factor        | Sub issue                    | Discussion   | Benchmarking approach   |
|---------------|------------------------------|--|---|
| Comparability | Sample                       | Comparable services from each country should be included in the benchmark set. For example, benchmarking the cheapest service offered by the incumbent in each country is consistent, although such benchmarking is unlikely to give the cheapest price for each country.  | For retail fixed-line voice benchmarking, data is collected on the plans offered by the incumbent operator in each country. For fixed-line broadband benchmarking, data is generally collected for three operators in each country.   |
|               | Technology                   | Often a telecommunications service can be provided by different technologies or different variations of the same technology. This may impact on comparability. For example, a fixed-line broadband service can be provided over copper, cable or fibre, and one may provide a better quality service.                        | The OECD benchmarking generally looks at the service provided within the general technology categories of fixed telephone lines. Fixed-line broadband benchmarking considers any fixed-line technology that meets the basket requirements but particular technologies can be excluded if desired. |
|               | Quality                      | Some telecommunications services like DSL broadband services can have significant quality differences between providers. Such quality differences will affect comparability.   | Quality should largely be comparable across the voice services being benchmarked. There is insufficient data available to try to adjust broadband benchmarking for quality factors.   |
| Conversion    | Exchange rate                | When the price of services is compared between countries, each national price needs to be converted into common currency. This conversion can be based on the spot exchange rate or an average exchange rate over a longer period to iron out shorter term fluctuations. The option chosen can affect the result.            | The market exchange rate is one option that can be selected with OECD benchmarking but the Commission selects the PPP option.   |
|               | Purchasing power adjustments | Rather than using market exchange rates, the exchange rate used for conversion can be adjusted to take account of the differing cost of living in different countries. Such an adjusted exchange rate is called a purchasing power parity (PPP) exchange rate. There are different methods for calculating PPPs.             | The OECD calculates its own PPP rates, which are referred to as OECD Comparative Price Levels. The Commission chooses to use these PPP rates.   |
|               | Tax                          | The retail price of telecommunications services usually includes a value added tax (VAT) like GST, and the tax rate varies between countries. The price consumers pay includes tax but it can be argued that a better indication of underlying price differences between countries excludes taxes added to the retail price. | The user can choose whether to include VAT or not. The Commission now chooses to include VAT/GST in its benchmarking of consumer plans and excludes it for business plans (as businesses get a credit for GST paid).  |

|                 |                            |   |   |
|-----------------|----------------------------|---|---|
| <i>Bundling</i> | <i>Discount allocation</i> | <i>It is common for telecommunications services to be sold at a discount when two or more services are purchased for one bundled price. The discount might not be allocated evenly to each service.</i>   | <i>The stand- alone price of telecommunications plans is used or the price of the whole bundle of services. For broadband, this equates to naked broadband price or the voice + broadband bundle price.</i>   |
|                 | <i>Imputed price</i>       | <i>Sometimes telecommunications services like broadband are only available (at least from some suppliers) in a bundle with another service like voice. An imputed price for the second service is therefore required to price the first service if a disaggregated price is required.</i>   | <i>Bundled prices are not disaggregated in this report so no imputation is needed.</i>  |
|                 | <i>Custom deals</i>        | <i>Larger businesses usually negotiate a confidential price for a customised package of telecommunications services, making it difficult to benchmark the price of affected telecommunications services and to make any such benchmarking publicly available.</i>   | <i>The benchmarking used assesses plans applicable to residential customers and small businesses only.</i>  |
| <i>Timing</i>   | <i>Price changes</i>       | <i>The prices used for the benchmarking are picked at a certain point in time or within a certain time range. Pricing may change between the time the prices are selected and time the benchmarking results are published. This may make a particular provider and/or country look better or worse if its prices move up or down in the intervening period.</i>                         | <i>It is usually obvious when a local plan changes in price or terms so it is tempting to adjust the benchmarking results. However, adjusting the local price without reviewing all the overseas prices would be unfair. If the Commission is aware of a material change in the price or terms of a local plan it will generally mention this fact in the commentary.</i> |
|                 | <i>Short term deals</i>    | <i>Telecommunications retailers often offer special deals that are only available for a limited time, so it may be unfair to take these as the prevailing price. However, often these deals are extended or are replaced by similarly cheap deals. Furthermore, retailers can withdraw ordinary retail plans and replace them with something cheaper or more expensive at any time.</i> | <i>In general, the OECD benchmarking now includes promotions and discounts that are available beyond the month for which data is being collected. Whether a particular promotion or discount is included will depend on how it is presented and the judgement call made by Teligen.</i>   |