

# **Price trends in retail fixed-line broadband services, 2011 to 2014, and the impact of wholesale price changes**

**Telecommunications monitoring report**

Date: June 2015

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## Executive summary

The purpose of this report is to examine price trends for retail broadband over the 2011 to 2014 period and the impact on retail service providers (RSPs) of recent changes in the price of wholesale inputs.

Legislation was passed in mid-2011 to change the basis for calculating the UBA (wholesale broadband) price from retail-minus to cost-based, with effect from 1 December 2014.

The average user of a retail fixed-line broadband service had a reduction in their retail price by \$10 to \$15 in the period from early 2011 to late 2014, with the reduction typically occurring in one or two movements in late 2012.

Given that the wholesale price fall was to take place on 1 December 2014, it is possible that the earlier retail price reduction by RSPs was in anticipation of a drop in their wholesale costs. However, competitive pressures in the market may also have caused the retail price reduction.

While the UBA wholesale price did reduce on 1 December 2014, a future rise in wholesale copper prices was signalled by the draft FPP (final pricing principle) announcement of 2 December 2014.

Applying the draft FPP prices reduces RSP's margins from their post 1 December 2014 levels and leaves them in the position of not earning a significant margin in any of the scenarios examined in this report. RSPs other than Spark are more adversely affected because they don't have the benefit of having many customers to whom they can deliver an analogue voice service using Baseband IP. It is therefore not surprising that the major RSPs raised retail prices by \$4 to \$5 a month in February 2015 for at least entry level broadband bundles. However, the price of some unlimited broadband bundles was reduced.

## Introduction

### Purpose

The purpose of this report is to consider how the price of retail phone and broadband bundles has been changing over the 2011 to 2014 period, what has been driving that change, and the impact on RSPs of recent wholesale price changes. These price changes were principally the UBA wholesale price reduction on 1 December 2014 and the future wholesale price changes signalled by the draft FPP pricing announcement of 2 December 2014. These wholesale prices are those that determine the cost to retailers of delivering of voice and broadband services over copper lines.

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.

### Retail pricing strategies

How wholesale input costs get translated into retail prices by an RSP depends on a whole raft of factors including brand positioning, how the RSP reacts to the behaviour of its competitors, and changing consumer preferences.

#### *Price discrimination*

Retailers often try to have a pricing structure that makes some customers more willing to pay a higher amount for a product or service than other customers. This pricing structure often takes the form of having a premium version of the product that has a higher profit margin.

With broadband services, providing bundles with higher data caps than an entry-level user needs but at a significantly higher price has been a tactic for RSPs to extract a premium price. This means that the retail price attributed to data has been far higher than cost, which we estimate to be about \$5 a month per line on average. Data is discussed further below but the Commission identified in its high speed broadband demand side study published in June 2012 that data costs had reduced and data issues were likely to be resolved by market forces. Subsequent developments indicate that is what happened, with the retail premium charged for plans with large amounts of data falling significantly since 2012.

#### *Enticements*

It is common for RSPs to offer new customers enticements to get them to switch from a competitor. This might take the form of several months of free service or a temporary price reduction that might apply for 12 months before reverting to the standard price. The latter tactic was commonly employed by TelstraClear.

Another common tactic was to bring out new broadband plans with higher data caps and/or a cheaper price but leave the old plans in place. Only new customers or existing customers requesting the new plan got to experience its benefits.

RSPs have various strategies to deal with existing customers when new customers get a better price. When the old plans are kept going but are no longer offered to new customers, they are said to be 'grandfathered'. A grandfathered broadband plan will keep going until all the customers move off it from the usual churn factors or the RSP decides to migrate remaining customers to a new plan.

### ***Geographic pricing***

RSPs also have varying strategies to deal with the geographic wholesale price differences they face. RSPs initially offered cheaper broadband prices for plans supplied from exchanges they had unbundled (such pricing is sometimes referred to as on-net pricing). However, no price differential has ever applied to customers served from the higher cost cabinetised lines connected to unbundled exchanges. This is most likely because of the possibility that two customers living right next to each other might be charged different prices for essentially the same service, which would seem unfair to the customers concerned. It would also create extra administration costs for the RSP.

Charging different broadband prices for different exchanges (depending on unbundled status) creates billing complications and might also lead to customer dissatisfaction. Certainly, some larger RSPs like Vodafone moved away from using such pricing several years ago and settled on geographically uniform prices for all residential DSL broadband services.

### ***Dealing with future input price reductions***

Another part of pricing strategy is dealing with expected future input price changes – changes that are certain or at least very likely. A retailer who anticipates a wholesale price reduction by reducing retail prices early might gain a sufficient number of new customers to offset the temporary reduction in retail revenue. Retailers could be willing to accept a temporary reduction in revenue lasting as long as several years.

Telecommunications businesses often have to price according to a longer term business plan because of the high level of sunk costs. For example, new operators investing in expensive infrastructure know they need to price low enough to attract customers from other operators, with the implication that they will not turn a profit for several years, possibly for five or more years in some cases.

### **Current state of fixed-line retail broadband market**

Retail prices for broadband and voice service bundles have dropped markedly in recent years, particularly for bundles that include large amounts of data.

For a bundle that includes enough data to serve the average user (about 30GB) the best price surveyed in New Zealand by Teligen in September 2014 was right on the OECD average (\$69).<sup>1</sup>

The entry level plans now offered by nearly all RSPs are large enough to serve the needs of an average user and in 2013 to 2014 had largely settled at a price of \$75. Given the underlying costs, which are discussed further below, our analysis indicated this price provided little margin for retailers.

### **The costs involved in supplying a retail broadband service bundle over copper lines**

To supply a retail fixed-line broadband service over copper lines, an RSP has to purchase appropriate wholesale input services. The exact services required will depend on a range of factors including:

- the location of the end-users being served,
- the amount of infrastructure the RSP has in exchanges,

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<sup>1</sup> Calculated using PPP exchange rates.

- the amount of infrastructure the RSP has at various other handover points in the network, and
- the bundle of services being supplied to the end-user.

To help make the discussion on this issue manageable, it is limited to an examination of the costs of supplying a bundled residential voice and broadband service. This is the most common fixed-line service purchased by residential consumers. Such a service might also be used by small businesses operated from home.

The four main cost components an RSP has to fund to provide a bundled voice and broadband service over a copper line are:

- the line access cost that provides a return to the network provider for the fixed costs of providing the copper line between the end-user and the local exchange (given by the UCLL price, which is averaged between urban and non-urban in some circumstances),
- the broadband service cost for the provision of a copper broadband service over the line (a bitstream service known as UBA),
- the voice service cost for the provision of a voice service over the same line, and
- the cost of hauling data to national and international points of interconnection.

If a line is unbundled by an RSP it effectively leases the line and provides services via its own infrastructure, so it just pays a line access charge (the UCLL price).

When a line is not unbundled, the line access charge is now always added to the wholesale broadband price (making the wholesale copper price equal to UBA + UCLL).

For the costing undertaken in this report, the voice service is assumed to be the traditional analogue voice service that requires a dedicated voice channel, but some smaller RSPs instead provide an IP voice service delivered via the broadband service. To deliver an analogue voice service the RSP can buy Spark's voice service (using Chorus as an agent) or buy a voice channel from Chorus (a Baseband service) and use their own voice platform. Apart from Spark, the use of Baseband is generally only practical for RSPs to use when it is provided in a form called Baseband IP. However, this service is not available in many areas although Chorus recently announced it is going to expand coverage. Baseband IP also costs \$2.50 to \$5 more than standard Baseband.

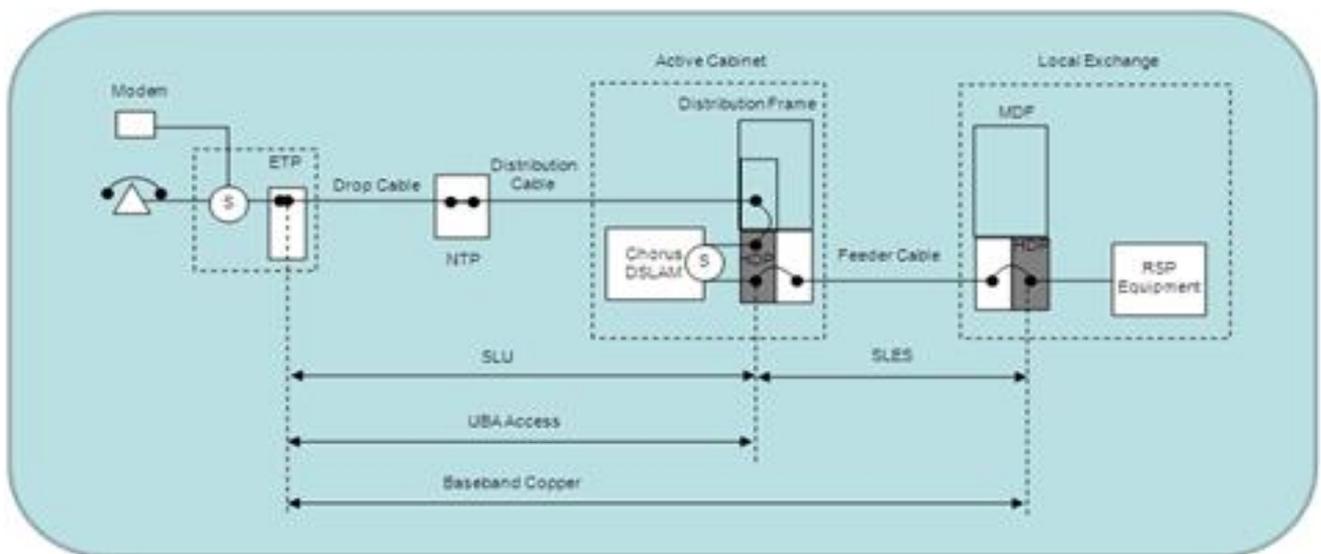
Approximately half of all copper lines have been cabinetised (diverted into a roadside cabinet housing broadband delivery equipment) in order to take the delivery of DSL broadband closer to the end-user, enabling it to be delivered at a higher speed. With a cabinetised line the UBA service is therefore usually delivered from a DSLAM in the cabinet.

The wholesale price of the voice service from Spark was originally set, as part of a voluntary industry agreement, at a 5% discount to the standard retail price. The residential retail price over most of the period examined was \$51 a month but set \$5 a month lower in Auckland, Wellington and Christchurch. The Commission understands that competitive pressures meant that Spark often gave a larger discount than 5% to wholesale customers. The retail voice service prices increased from 1 February 2015 by \$4 a month in Auckland, Wellington and Christchurch and by \$2.50 a month in the rest of the country.

### ***If an exchange has been unbundled***

If an RSP puts equipment into an exchange that has been unbundled then it buys access to each line at the UCLL regulated cost-based price. It then has to supply the broadband and voice inputs itself using its own infrastructure. Spark was prohibited from unbundling until 1 December 2014 so always provided a service using the UBA and Baseband wholesale inputs.

If a line from an unbundled exchange has been cabinetised then a voice service can still usually be supplied from the unbundler's equipment in the exchange but the broadband service is best supplied from the cabinet. Unless the cabinet itself is also unbundled (which is unlikely to be economic) then broadband is usually provided using a UBA service from the Chorus cabinet, while voice is provided via a sub-loop from the cabinet (SLU) and a Sub-loop Extension Service (SLES) to extend to the loop back to the exchange. The SLU + SLES service is provided for the full UCLL wholesale price plus a small extra charge. Chorus provides SLES as a commercial service.



Source: Chorus

### **Other external costs faced by a retailer**

To provide a broadband service, a retailer has to get the data transported to various handover points enabling connection to the internet both locally and internationally. These services can be loosely described as national and international backhaul.

The cost of international backhaul in particular has been dropping over time but at the same time data usage has been increasing. This means it is likely that the total cost per customer has been relatively stable over the last few years. It is also not a particularly significant cost and did not give the Commission any cause for concern when it looked at it as part of its demand side study.

It is estimated that the cost of both national and international backhaul is \$5 a month per customer.

To put together an attractive broadband and voice retail offer, RSPs are also likely to face other external costs. It is common for RSPs to offer customers a free modem router with Wi-Fi, which we understand typically has a wholesale cost of \$80-\$90 (referred to as customer premise equipment or CPE), in return for signing up to a one or two year contract. The retailer also often covers any upfront connection or switching costs charged by Chorus. The charge for switching UBA from another provider was \$22 pre 1 December 2014.

Prior to 1 December 2014, connection charges did not apply for retailers purchasing UBA because they were included in the overall retail-minus based price. Once the UBA price became cost-based, connection charges had to be charged separately. We understand that these average about \$75. Connection charges are being reviewed as part of the FPP process.

CPE, switching and connection costs are likely to total around \$100 or \$200 depending on whether connection costs have to be fully covered. These costs have to be recovered over the term of the customer relationship which, for switching customers, is unlikely to be much longer than two years. Customers getting free CPE usually have to sign a one or two year contract that has early termination penalties.

### **Internal fixed costs**

For an RSP to provide a broadband and voice service over an unbundled line it has to invest in appropriate infrastructure. If it has made a capital investment, it requires a pay-back of that investment.

It is estimated that an RSP needs a return of about \$15 a month per line for UCLL broadband and voice infrastructure at the exchange. This is largely to recover the cost of the multi-service access node (MSAN) that connects to customer lines to provide voice and broadband services. In addition we estimate about \$3 a month is needed to fund a voice platform to deal with voice services.

These internal fixed costs are budgeted using a short pay-back period of about three years given the uncertainties of the telecommunications industry. Once these sunk costs have been recovered, the RSP will enjoy a greater gross margin than that shown in the pricing scenarios. However, a low margin will still mean there is little incentive to undertake any new investment of that type and that less funds are being generated for other new investment.

### **Pricing scenarios**

It is useful to add all the known input costs together and see what gross margin can be earned by the retailer if the common \$75 retail price is being charged for a broadband bundle. From this gross margin, RSPs still have to cover all their operating costs including staff, advertising and bad debts. The pricing scenarios shown are a simplification of the real world but are useful to indicate the relative difference in margins under the various pricing scenarios.

From 1 December 2014 the UBA price reduced from \$21.46 to \$10.92 as it moved from a retail-minus basis to a benchmarked cost basis. However, the UCLL price increased from \$19.84 to \$23.52 for urban connections (which are the vast majority) because the urban and non-urban prices had to be averaged.

When considering a broadband and analogue voice service provided in Auckland, Wellington or Christchurch, there are five main scenarios with a matrix of the monthly wholesale input costs. The situation applying prior to 1 December 2014 is shown in Table 1.

**Table 1: Broadband and voice service input pricing scenarios – prior to 1 December 2014**

	Pre 1 December 2014				
		Exchange not unbundled		Exchange unbundled	
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
	Spark's situation	Baseband IP available	Baseband IP not available	Line unbundled	Line cabinetised
Spark Homeline incl access			37.79		
Baseband incl access (UCLL price)	23.52	26.02			
UBA (wholesale broadband)	21.46	21.46	21.46		21.46
UCLL (line access charge)				19.84	
Payback of UCLL (MSAN) invsmt				15.00	7.50
National and int backhaul	5.00	5.00	5.00	5.00	5.00
SLU + SLES - for voice					25.02
Voice platform (estimate)	3.00	3.00		3.00	3.00
Free CPE and/or connection	4.00	4.00	4.00	8.00	8.00
<b>Total</b>	<b>56.98</b>	<b>59.48</b>	<b>68.25</b>	<b>50.84</b>	<b>69.98</b>
Gross margin if retail price \$75 (\$65.22 ex GST)	8.24	5.74	-3.03	14.38	-4.76

This indicates that at the \$75 retail price point a positive gross margin<sup>2</sup> was earned only in three out of the five scenarios – 1,2 and 4, and a healthy margin earned only in scenario 4 – that is where the line is unbundled and not cabinetised.

Table 2 shows the five scenarios with the new wholesale pricing applying from 1 December 2014.

**Table 2: Broadband and voice service input pricing scenarios – post 1 December 2014**

	Post 1 December 2014 using IPP prices				
		Exchange not unbundled		Exchange unbundled	
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
	Spark's situation	Baseband IP available	Baseband IP not available	Line unbundled	Line cabinetised
Spark Homeline excl access			14.27		
Baseband incl access (UCLL price)	23.52	26.02			
UBA (wholesale broadband)	10.92	10.92	10.92		10.92
UCLL (or line access charge)			23.52	23.52	
Payback of UCLL (MSAN) invsmt				15.00	7.50
National and int backhaul	5.00	5.00	5.00	5.00	5.00
SLU + SLES - for voice					25.02
Voice platform (estimate)	3.00	3.00		3.00	3.00
Free CPE and/or connection	8.00	8.00	8.00	8.00	8.00
<b>Total (ex GST)</b>	<b>50.44</b>	<b>52.94</b>	<b>61.71</b>	<b>54.52</b>	<b>59.44</b>
Gross margin if retail price \$75 (\$65.22 ex GST)	14.78	12.28	3.51	10.70	5.78
Margin change from pre 1 Dec 20	6.54	6.54	6.54	-3.68	10.54

<sup>2</sup> GST is excluded from the gross margin for all scenarios.

The reduction in the UBA price means that all scenarios now show a positive gross margin with the most healthy being scenario 1 with a gross margin of \$14.78. The gross margin for scenario 4 falls by \$3.68 to \$10.70 due to the averaging of the UCLL price.

### TSLRIC pricing

The Commission was requested to determine a final cost-based price for UBA and UCLL based on TSLRIC (Total service long run incremental cost) cost modelling (the FPP price). This cost modelling exercise produced a draft FPP price on 2 December 2014, and final FPP price is expected by the end of 2015.

This means the RSPs face considerable cost uncertainty. While RSPs might expect the UBA price reduction to endure, the UCLL price has increased in the draft FPP which pushes up total input costs. This is shown by the application of the draft FPP prices in Table 3.

Given Spark recently (from 1 February 2015) increased voice and broadband prices together with higher wholesale prices for voice, we have put those higher wholesale prices into Table 3 as well. Higher retail prices might be justified as discussed below.

We understand Spark increased its wholesale voice price by \$2.85 a month. However, the changes in regulated wholesale input prices are unlikely to increase the cost of delivering this voice service because where Spark is delivering a wholesale voice service to an RSP this is invariably to enable the RSP to deliver a voice and broadband bundle. In this situation, the line access charge is now being charged directly to the RSP and Spark need only purchase Baseband at the UBA price which, as indicated, had a large reduction from 1 December 2014 with little expectation by RSPs of a significant upwards revision.

**Table 3: Broadband and voice service input pricing scenarios – draft FPP prices**

	Post 1 December 2014 using draft FPP prices				
	Exchange not unbundled			Exchange unbundled	
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
	Spark's situation	Baseband IP available	Baseband IP not available	Line unbundled	Line cabinetised
Spark Homeline excl access			17.12		
Baseband incl access (UCLL price)	28.22	30.72			
UBA (wholesale broadband)	10.17	10.17	10.17		10.17
UCLL (or line access charge)			28.22	28.22	
Payback of UCLL (MSAN) invsmt				15.00	7.50
Domestic and int backhaul	5.00	5.00	5.00	5.00	5.00
SLU + SLES - for voice					29.72
Voice platform (estimate)	3.00	3.00		3.00	3.00
Free CPE and/or connection	8.00	8.00	8.00	8.00	8.00
<b>Total</b>	<b>54.39</b>	<b>56.89</b>	<b>68.51</b>	<b>59.22</b>	<b>63.39</b>
Gross margin if retail price \$75 (\$65.22 ex GST)	10.83	8.33	-3.29	6.00	1.83
Margin change from IPP	-3.95	-3.95	-6.80	-4.70	-3.95
Margin change from pre 1 Dec	2.59	2.59	-0.26	-8.38	6.59

While there is a small drop in the UBA price in the draft FPP, the UCLL price has climbed to offset most of the gain from the 1 December 2014 UBA price drop. This means the gross margin decreases for all scenarios compared to the post 1 December 2014 IPP prices.

Compared to the pre 1 December 2014 prices there are only small increases in margin in scenarios 1 and 2, and a large decrease in margin for unbundled lines in scenario 4. While scenario 5 has the largest gain in margin, the revised gross margin is still barely positive.

The gross margin looking the healthiest is that earned in scenario 1, which applies to Spark only. Spark is also earning a margin for the sale of its voice service for every line falling under scenario 3. While scenario 2 also has a reasonable margin, it applies only to a relatively small number of lines.

### **Retail price trend over recent years**

Examining the retail price trend over recent years (from early 2011 until late 2014) might indicate how RSPs reacted to the signalled reduction in the UBA price. The scenarios examined above already indicate that any further reduction from the widely adopted \$75 price for an average user was unlikely given the lack of certainty about the reduction in the combined UBA and UCLL price.

To track retail prices we looked at the pricing of the largest RSPs (now Spark and Vodafone and previously Telecom, TelstraClear and Vodafone) who together serve about 80% of the market. We also looked at average fixed-line data usage (32GB for 2013/14) and how it changed over time (it was only 10GB in early 2011) to determine what plans in each period would best meet the needs of an average user. As a comparison, we also tracked the price of filling a data basket fixed at what was high usage in 2011 (60GB).

### ***UBA price reduction***

To consider whether the UBA price reduction has influenced retail price setting we need to start looking at retail pricing from just before the legislation changed to require the price calculation to move from retail-minus to cost-based from 1 December 2014. The key dates include:

- 30 June 2011, legislation to give effect to new basis of calculating UBA price passed
- 26 July 2012, discussion document on approach to setting new UBA price released
- 3 December 2012, draft cost-based UBA price announced and the final UCLL price – both prices set by benchmarking as required by the initial pricing principle
- 5 November 2013, final UBA price set using initial pricing principle announced
- 6 December 2013, Commission announces it received request from Chorus to undertake a final pricing review of the UBA service using cost modelling
- 7 October 2014, Chorus makes presentation suggesting that a modelled UBA price of around \$12 implies a UCLL price of around \$33.

RSPs would have known from 30 June 2011 that a UBA price reduction was likely. After the Commission released a discussion document on 26 July 2012 on the approach being taken to calculate a cost-based price by benchmarking, RSPs may have been able to guess the likely amount of the reduction. The amount of the UBA price reduction would have been seen as reasonably certain after the draft price was announced in December 2012.

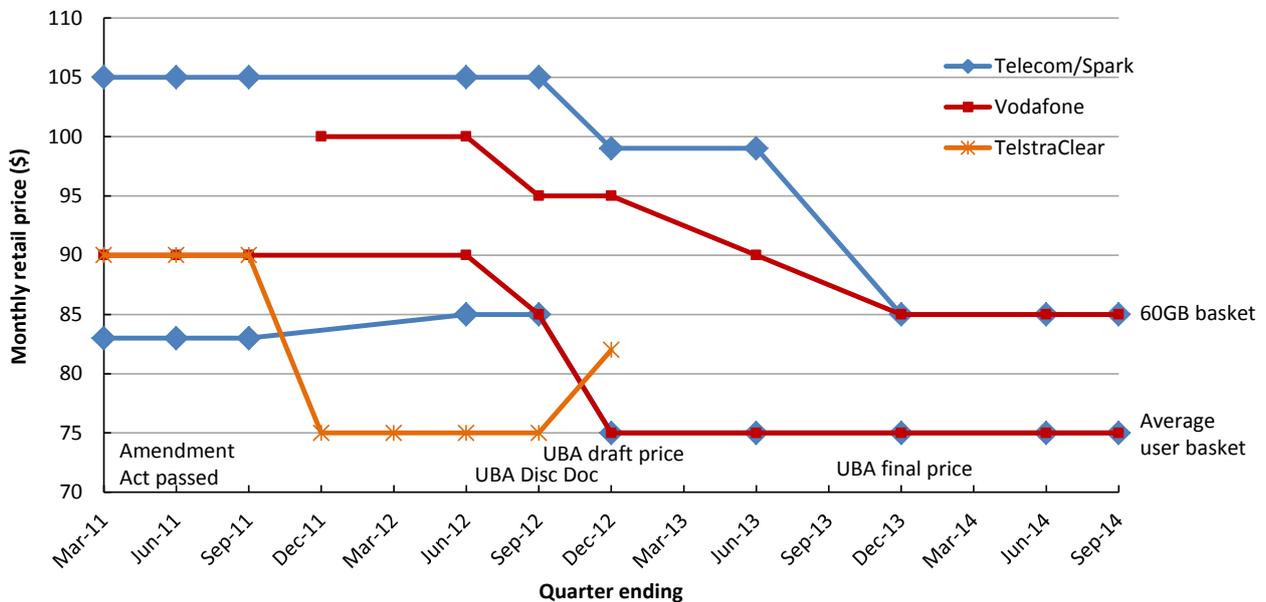
However, once it was announced in December 2013 that the Commission had been requested to undertake a final pricing review of the UBA price using a cost model, a great deal of the certainty would have been lost about the likely price reduction. The new FPP price could also be back-dated.

Finally, RSPs may have been further unsettled by the Chorus presentation of 7 October 2014 indicating that RSPs might even end up worse off overall after final prices are set for UBA and UCLL.

Figure 1 shows how the prices for the average user and 60GB baskets for each of the main players track over the time period discussed. The prices were those offered on the RSP websites at the various times and include known special offers where these gave an extended price reduction off the monthly price.

A special offer explains the early TelstraClear price drop and then rise again in the last quarter of 2012 before it fully merged with Vodafone. Around October 2011 TelstraClear started offering new customers its base price of \$75 for a voice and broadband service with 40GB of data included for no extra charge for the first 12 months. In October 2012 this offer appeared to be replaced with a 'buy 60GB for the price of 10GB' offer which had a total price of \$83.

**Figure 1: Fixed-line broadband price tracks**



The price of the average user basket dropped by around \$10-15 within 3 to 15 months after the Amendment Act was passed and remained constant until the end of 2012. Both Telecom/Spark and Vodafone dropped their price by \$10 within a few months after the July 2012 UBA discussion document was released but it is unclear if the two events were causally related. Competitive pressure from the special price being offered by TelstraClear may have hastened the price reduction.

A 60GB basket purchased from Telecom/Spark or Vodafone dropped in price by \$15 to \$20 from mid-2012 to late 2013. The larger price drop is consistent with the practice of plans with relatively high data caps being priced at a premium, at least until relatively recently. Vodafone did not even offer a residential broadband plan with as much as 60GB of data until October 2011. Plans with that amount of data are now considered to be 'mid-range'.

We note that on 1 February 2015, after the end of the period examined above, the three largest RSPs increased prices for entry level (40GB) and mid-level (80GB) broadband bundles and some naked broadband services by \$4 to \$5 per month. However, the price of some unlimited

broadband bundles dropped by \$6 to \$10 a month. Furthermore, in April 2015 one of the RSPs started offering a limited time special for its entry level broadband bundle of \$69 a month (a \$10 discount) but customers have to supply their own modem to take up the offer.

## **Conclusion**

The retail broadband market is complex with many moving parts. This makes it difficult to come to definitive conclusions over what has been driving prices in the last few years and to determine the exact impact of wholesale price changes. However, we have set out below what we consider are the key facts and the general conclusions that can be drawn.

Legislation was passed in mid-2011 to change the basis for calculating the UBA wholesale price from retail-minus to cost-based with effect from 1 December 2014.

The average user of a fixed-line broadband service had a reduction in the retail price by \$10 to \$15 from early 2011 to late 2014, with the reduction typically occurring in one or two movements in late 2012.

Given that the wholesale price fall was to take place on 1 December 2014, it is possible that the earlier retail price reduction by RSPs was in anticipation of a drop in their wholesale costs. However, competitive pressures in the market may also have caused the retail price reduction.

While the UBA wholesale price did reduce on 1 December 2014, a future rise in wholesale copper prices was signalled by the draft FPP announcement of 2 December 2014.

Applying the draft FPP prices reduces RSP's margins and leaves them in the position of not earning a significant margin in any of the scenarios examined in this report. RSPs other than Spark are more adversely affected because they don't have the benefit of having many customers they can deliver an analogue voice service to using Baseband IP. It is therefore not surprising that the major RSPs raised retail prices by \$4 to \$5 a month in February 2015 for at least entry level broadband bundles. However, the price of some unlimited broadband bundles was reduced.

## **Attachment 1 – Factors affecting cost inputs for retail broadband service**

If a full picture of all the factors affecting the change to broadband input costs faced by an RSP are considered then the matrix of different costs that apply becomes quite complex. The change in cost inputs can vary according to the following factors which, including those already discussed, can include:

- the geographic pricing used by Spark if a voice service is purchased from it – this has two tiers with Auckland, Wellington and Christchurch giving a lower price than the rest of the country
- whether the exchange is classified as urban or non-urban
- the wholesale customer discount applied by Spark
- whether the exchange has been unbundled by the RSP
- whether the line being served has been cabinetised
- whether Chorus has Baseband IP available at the exchange
- whether a voice service is offered in the bundle and, if so, whether it is analogue or IP based
- what national backhaul infrastructure or national backhaul arrangements the RSP has for the particular exchange
- what international backhaul arrangements the RSP has – it is more expensive to buy international capacity in small increments from an intermediary than to buy larger amounts on a long term basis directly from a cable operator.
- what customer premises equipment, e.g. DSL modem router with Wi-Fi, is being offered as part of the customer contract
- what connection and switching charges are being charged by Chorus and whether they are covered as part of the customer contract
- what other incentives are being offered to the customer.

All this means the average cost per line faced by each RSP is different and difficult to estimate precisely, although for the larger RSPs the variation between them in average cost per line is unlikely to be substantial.

To further confuse matters, the access cost has traditionally been linked to the voice service, but with broadband now considered to be the primary use of a copper access line, the access cost is more closely linked to the data service from 1 December 2014.