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## Competition and Regulatory Implications of a Vodafone-TelstraClear Merger: first thoughts

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### **Caveat**

This Comment has been prepared as a first response to the news that a merger may occur. It is not intended to be a comprehensive analysis, but serves rather to highlight some of the issues which, from the perspective of a long-time observer of competition and regulation in the New Zealand telecommunications sector, would appear to warrant consideration.

If the mooted takeover of TelstraClear (TCL) by Vodafone is to go ahead, it will be the most significant non-regulatory structural change in the New Zealand telecommunications marketplace since the merger of TelstraSaturn and Clear Communications in December 2001. The merger is a game-changer because it would lead to the creation of a fully vertically integrated telecommunications company providing a complete range of fixed and mobile networks (at least in the areas where TCL's cable network exists), a matter of merely months after New Zealand's incumbent integrated operator Telecom New Zealand (TCNZ) was 'required' to structurally separate its fixed line network from its retail and mobile operations. The implications for both of the separated TCNZ firms (new) Telecom and Chorus are not trivial. There are also likely to be some significant challenges arising for both regulation and the Government's new Ultrafast Broadband (UFB) network from the presence of a strong, integrated multi-infrastructure provider.

### ***A Short Trip Through History<sup>1</sup>***

In order to fully understand the implications of the proposed merger, it is necessary to recap a little history of the New Zealand telecommunications landscape, to put in perspective the extensive merger and consolidation activity that has taken place in the sector following the rapid expansion of entrants and the introduction of internet access into the bundle of telecommunications products offered.

#### **Vodafone**

Vodafone entered the New Zealand market in November 1998 when it bought the New Zealand mobile network operation of BellSouth New Zealand Limited. BellSouth had operated in the New Zealand market since 1993. In May 2003, it surpassed TCNZ's number of mobile connections, and has been the market leader ever since, in both mobile voice and data. Since the introduction of local loop unbundling in New Zealand after the passing of the Telecommunications Amendment Act 2006, the firm has become a major retailer of fixed telephone and broadband connections, and has installed unbundling equipment in many Telecom exchanges. In 2006, it bought fixed line Internet Service Provider (ISP) iHug. In 2011, Vodafone's retail residential internet market share was 13% (Telecom's share was 49%)<sup>2</sup>.

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<sup>1</sup> Most of the data for this section comes from Howell, B. (2007). *A Pendulous Progression: New Zealand's Telecommunications Regulation 1987-2007*.

[http://iscr.org.nz/f378,10548/10548\\_Pendulous\\_Progress\\_v\\_4\\_12\\_Nov.pdf](http://iscr.org.nz/f378,10548/10548_Pendulous_Progress_v_4_12_Nov.pdf)

<sup>2</sup> New Zealand Commerce Commission . (2012). *Annual Telecommunications Monitoring Report 2011* <http://www.comcom.govt.nz/TelecommunicationsMarketAnnualMonitoringReports/> p 20.

## TelstraClear

TelstraClear arose from the merger of TelstraSaturn and Clear Communications in 2001.

Clear Communications entered New Zealand in 1991. With the benefit of a nationwide fibre-optic backhaul network courtesy of minor shareholder New Zealand Railways, it quickly built up a market presence, despite its protracted litigation between 1991 and 1994 regarding the interconnection price charged by TCNZ. Clear's initial focus was the long distance calling and business markets. It was a major beneficiary of the explosive growth of dial-up internet access in New Zealand as it was able to take advantage of call termination fee arbitrage opportunities offered by the interaction of the 'free local calling' Kiwi Share obligation and its interconnection contract with TCNZ by sharing the revenues with Internet Service Providers (ISPs) in order to ensure that a disproportionately large number of them became its commercial customers (dial-up internet calls being substantially longer on average than voice calls)<sup>3</sup>.

TelstraSaturn was the result of the sale in 1999 of media company Saturn, which deployed New Zealand's first converged cable television and broadband network in Kapiti, Wellington and Christchurch, to Telstra NZ, which entered the New Zealand market in 1996. Telstra NZ had struggled to make its presence felt in the NZ market until its purchase of Saturn, which had a predominantly residential customer base. When the new Telecommunications Act 2001 required the mandatory regulated wholesaling of telephone and internet connection, the firm rapidly advanced towards having a nationwide presence in both the business and residential markets.

TelstraClear's story in New Zealand has been one based almost exclusively upon taking advantage of the opportunities offered by the takeover of, and regulated and negotiated access to, the infrastructure of other providers. TCL was one of the most ardent advocates for stringent regulation of TCNZ<sup>4</sup>, and has been one of the most significant beneficiaries of the regulatory changes in 2001 and 2006 granting wholesale and unbundled access respectively. It has been actively involved in the installation of infrastructure in unbundled exchanges. In 2011, TelstraClear's share of the residential retail internet market was 16%<sup>5</sup>.

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<sup>3</sup> Karel, A. (2003) *The Development and Implication of Free ISPs in New Zealand*. Wellington, New Zealand: ISCR [http://www.iscr.org.nz/f209,4313/4313\\_Free\\_ISPs\\_220903.pdf](http://www.iscr.org.nz/f209,4313/4313_Free_ISPs_220903.pdf)

<sup>4</sup> Although it is noted that TelstraSaturn argued strongly against regulatory intervention in the broadband market at the Telecommunications Inquiry in 2000, when it was in the midst of rolling out its CATV network.

<sup>5</sup> Commerce Commission (2012) *ibid*.

Although the Saturn purchase enabled TelstraSaturn to compete at the infrastructure level with the incumbent Telecom New Zealand, (and indeed, a Direct to Home TV service was due to be launched in late 2001), further deployment of the CATV network was halted in August 2001 when the merger with Clear was first mooted. When the details of wholesale access to TCNZ's network were announced on 29 November 2002, TelstraClear's then-CEO Rosemary Howard made it clear that New Zealand's nascent experience with infrastructure competition (between copper and cable) would stop with only the Wellington region and part of Christchurch having a real fixed line network choice ("we believe it's more industry efficient for TelstraClear to buy from Telecom rather than build duplicate networks to reach consumers who are widely spread throughout New Zealand"<sup>6</sup>).

Nonetheless, whilst there has been no expansion in the areas covered by the CATV network since 2001, following an upgrade to DOCSIS 3 technology in 2010, TCL has been offering ultra-fast broadband connections for sale<sup>7</sup>. Whilst very few ultra-fast connections have been sold, the investment upgrade has corresponded with an interesting turn-around in the mix of broadband connections in the New Zealand market. In June 2011, PointTopic reported the firm having 105,000 cable broadband subscribers, giving it around 10% of the New Zealand broadband market<sup>8</sup>. The same dataset shows that TCL's cable broadband growth rate between 2010Q3 and 2011Q4 was 14%, compared to a DSL growth rate of 8% over the same period. In 2011Q4, PointTopic's estimates show New Zealand having a broadband uptake rate of 25 per 100 population. A conservative estimate<sup>9</sup> of the cable broadband uptake rate in the regions where it is offered is, using these figures, 13 per 100 population. Whilst it is likely that the broadband uptake rate in Wellington and Christchurch exceeds the national average<sup>10</sup>, these figures would tend to suggest that in New Zealand, as well as in other countries (such as the United States, the

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<sup>6</sup> [http://www.telstraclear.co.nz/companyinfo/media\\_release\\_detail.cfm?newsid=81&news\\_type=tclArchive](http://www.telstraclear.co.nz/companyinfo/media_release_detail.cfm?newsid=81&news_type=tclArchive),

<sup>7</sup> Currently offered as 'WarpSpeed' up to 100 Mbps downstream/10Mbps upstream, but previously offered with speed of up to 40Mbps downstream.

<http://www.telstraclear.co.nz/residential/inhome/internet/warpspeed-next-generation/index.cfm>

<sup>8</sup> <http://point-topic.com/content/operatorSource/profiles2/new-zealand-broadband-overview.htm>

<sup>9</sup> Taking the entire Christchurch and Wellington region populations at that time of 772,000 (Statistics New Zealand). This will necessarily yield a low-end estimate of the cable broadband uptake rate, as the network does not cover the entire region.

<sup>10</sup> As the levels of income and education, as well as genuine infrastructure competition – all of which are higher than the national average in the population considered - are correlated with higher total uptake. See Boyle, Howell & Zhang (2008) [http://iscr.org.nz/f410,11598/11598\\_LLUBroadband01c\\_rev\\_300708.pdf](http://iscr.org.nz/f410,11598/11598_LLUBroadband01c_rev_300708.pdf)

Netherlands and Japan), cable broadband uptake rates will usually equal if not exceed those of ADSL where the infrastructures compete directly against each other<sup>11</sup>.

TelstraClear has also relied entirely on other providers for provisioning of mobile services to its customers. Until 2007, it resold Vodafone's GSM and UMTS services, although in 2006 announced that it would deploy its own UMTS network initially in Tauranga and then expanding to other regions. This led to considerable acrimony with Vodafone, with the consequence that from 2007, it began reselling connections on TCNZ's CDMA network. However, when negotiations for access to TCNZ's new UMTS network broke down in 2009, the reseller relationship with Vodafone was reactivated.

### **The ISP Market**

Whilst Telecom has long held a large market share for the sale of telephone connections, the ISP market in New Zealand (which mediates the means by which an individual's internet data is sourced and distributed between points of internet interconnection, distinct from the telecoms component where it is shipped over the consumer's fixed or mobile phone service to the ISP's nearest point of interconnection (the 'last mile') has traditionally been very much more widely shared. Since the early 2000s, Telecom (initially via its proprietary ISP Xtra, and then subsequently under the Telecom brand), has seldom held more than half the market for ISP connections. Whilst initially Telecom had a disproportionately large share of the (initially small) broadband connection market, as the broadband market has grown, both the number of connections and the share retained by competitors to Telecom has grown, in large part reflecting the fact that broadband has most typically sold as a replacement for an existing dial-up connection. It is noted that at its peak in 2003, the New Zealand dial-up market was shared between Xtra (with around 50% market share), TelstraClear's equivalent ClearNet and a number of non-telco ISPs such as iHug, Paradise and Orcon<sup>12</sup>.

Since unbundling was made available, there has been a significant trend towards the vertical integration of telecommunications retail service and infrastructure providers and ISPs. In this period, Vodafone acquired iHug, TelstraClear acquired Paradise and Kordia bought Orcon. The vertically integrated competitors to Telecom then used their relationships with ISP customers as a

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<sup>11</sup> For more detail on the Dutch and Japanese markets, see (respectively), Sadowski (2012) [http://iscr.org.nz/f714,19789/19789\\_Presentation\\_Wellington\\_2012.pptx](http://iscr.org.nz/f714,19789/19789_Presentation_Wellington_2012.pptx) and Sugaya (2012) [http://iscr.org.nz/f726,20253/20253\\_Minoru\\_Sugaya\\_ISCR\\_Presentation\\_29\\_March\\_2012.pdf](http://iscr.org.nz/f726,20253/20253_Minoru_Sugaya_ISCR_Presentation_29_March_2012.pdf)

<sup>12</sup> Howell & Obren (2003) [http://iscr.org.nz/f212,4362/4362\\_nz\\_telecommunications\\_usag\\_090703.pdf](http://iscr.org.nz/f212,4362/4362_nz_telecommunications_usag_090703.pdf)

key means of securing their telephone line rental custom as well – in the well-known ‘service bundling’ approach. Thus, even though the share of broadband lines sold by wholesalers and unbundling entrants has increased, and the telecommunications market has been deemed to have become more competitive, the market share of internet connections (broadband and dial-up) sold by non-Telecom ISPs has remained largely unchanged at around 50% (ComCom p 20). A notable effect over this time has been the decrease of retail ISPs and the consolidation of the market whereby it appears that the market share of the ‘bundles’ is converging towards the historic market shares of the respective ISPs. In addition, unlike the 1990s, when significant market entry occurred, there has not been a single new entrant into the fixed telecoms and broadband market since the passing of the Telecommunications Act in 2001. Rather, consolidation has been the dominant feature<sup>13</sup>.

### ***Fast-Forward to 2012***

So what does this history mean in respect of a proposed merger between TelstraClear and Vodafone in 2012? At the very least, it would appear to be simply a further step in the long-established pattern of mergers and consolidation in the fixed-line component of the sector over the 2000s. As only one of the firms has its own mobile network, it might be presumed that there is little of concern, as the mobile customers serviced by TelstraClear are already in effect Vodafone customers anyway.

### **Substantial Lessening of Competition in the ISP Market?**

A principled economic analysis should look first at defining the relevant markets and examining the effects in each. However, with this merger, there are many different ways available to define the relevant markets. Should the market definitions be based on the nature of the technologies sold (copper, mobile, fibre) or the service bundles offered (various combinations of fixed line, mobile and broadband)? In the business market or residential market, or combined? In the retail market alone, or in the wholesale markets too? And how should the analysis treat the fact that the new merged company in effect is recreating a vertically-integrated network-owning fixed-line operator (at least in some geographic markets) of the sort which the combination of regulation and Ultrafast broadband (UFB) negotiations have sought to dismantle? That is, how do the effects of the proposed merger affect the new separated companies Telecom and Chorus?

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<sup>13</sup> Srzich (2012).

I do not propose to address all of these issues in this preliminary discussion. The proposal to merge the number 2 and number 3 providers of ISP services to create a firm with around 30% market share, where the market leader (Telecom) has around a 50% share, falls outside the safe harbours defined in the Commerce Commission merger guidelines. Hence the merger is likely to come to the attention of the Commission as a merger that could result in a substantial lessening of competition. It is noted that:

“The Commission is of the view that an acquisition is unlikely to substantially lessen competition in a market where, after the proposed acquisition, either of the following situations exist:

- the three-firm concentration ratio in the relevant market is below 70 percent and the market share of the combined entity is less than in the order of a 40 percent share; or
- the three-firm concentration ratio in the relevant market is above 70 percent and the market share of the combined entity is less than in the order of 20 percent.”<sup>14</sup>

As the three-firm concentration ratio is over 70% (indeed, it is nearly 80%) and the market share of the combined entity is more than 20% (it is around 30%) it would seem likely that in respect of the internet access market at least, an investigation is warranted. Thus, although some commentators have reacted to the proposed merger with claims that it will increase competitive intensity (in the sense that it creates a single firm with more power to counter Telecom as market leader), it may lead to reductions in actual competition in respect of the number of firms in the important internet access space. This is an important point, given that it is the ISP component of the service ‘bundles’ which appears to be driving the development of competitive interaction in the retail segment of the market following the regulatory changes in the mid-2000s. Reducing choice in this component will necessarily lead to some compromises in the range of services offered to consumers. Whether this is economically material is rightly a matter on which the Commerce Commission should adjudicate.

### **The Ultrafast Broadband Connection Market(s)**

This consideration leads naturally to the second point for consideration – what the merger means for the broadband internet access market in particular. Whilst there is still a (declining) market for fixed line voice connections, the growth areas of the market currently are in respect of mobile voice and data, and broadband. Given that in the near term, fixed broadband connections will replace dial-up internet connections, the ‘fixed line internet access market’ is becoming

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<sup>14</sup> Commerce Commission (2004). Mergers and Acquisitions Guidelines  
<http://www.comcom.govt.nz/assets/Imported-from-old-site/BusinessCompetition/MergersAcquisitions/ClearanceProcessGuidelines/ContentFiles/Documents/Mergers-and-AcquisitionsGuidelines-2003.pdf> p 25



increasingly the 'fixed broadband internet access market. The relevant forward-looking question is how this affects the market for fibre broadband connections.

The fixed broadband market is not, in the New Zealand context, a simple single nationwide market, as different providers are competing in different geographic markets using different technologies. In the short-to-medium term (the 8 years over which it is anticipated the UFB will roll out), copper broadband access will continue to be a feature. Technological innovation is making ever-faster speeds available. Chorus' cabinetisation programme was completed in 2011, meaning almost all urban consumers (in areas where there are 500 or more connections) have access to comparatively fast (by OECD standards) copper-based connections. The separation of Chorus as the infrastructure provider from Telecom (the retailer) means that there is no special advantage for Telecom in respect of internet connections to these cabinets. In the areas where there is likely a long wait for fibre connections, having two more-or-less equal broadband providers (Telecom and the merged Vodafone-TelstraClear) will likely increase competitive intensity on the copper network, in terms of both customer market share and quality innovation. This would suggest that there may be a renewed level of interest in the deployment of sub-loop unbundling, where one or other of the retailers chooses to install its infrastructure in the cabinets in order to provide a differentiated service to the one offered by the other using Chorus infrastructure. Such investments would not be as likely to occur if the retail market was spread more widely (as under the current market split).

### **UFB Uptake delays<sup>15</sup>**

Increased competitive intensity on the (Chorus) copper network will likely lead to delays in the uptake of UFB connections in a separated fixed line world. Where the industry faces a downward-sloping average cost curve (as is the case for sunk costs such as those required for sub-loop unbundling investments), then the likelihood of investment occurring is affected by the steepness of the average cost curve and the number of possible investors. The larger is the number of potential investors, the riskier it is that they will be able to get sufficient customers to recoup the investment cost. Therefore, they may all sit back and wait to see what the other participants will do, even though investing would be desirable from the consumer welfare perspective. If a merger reduces the number of potential investors, then the risk that the investor will not get sufficient customers to justify the investment is reduced, making investment more likely.

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<sup>15</sup> These issues are discussed more fully in Heatley & Howell (2010) [http://iscr.org.nz/f607.17391/17391\\_Heatley\\_Howell\\_Regulatory\\_Implications\\_Final.pdf](http://iscr.org.nz/f607.17391/17391_Heatley_Howell_Regulatory_Implications_Final.pdf)

From these assumptions, then, we would infer that a merger between TCL and V (merge to 30% market share) makes it more likely that sub-loop unbundling will occur with the merger than under the counterfactual of investment when each had a lower market share (16% & 13%).

The more the retailers invest in unbundled infrastructure to offer faster services, the less likely they will be to want to sell fibre connections, especially if they have yet to recoup the sub-loop unbundling investments. As fibre operators cannot have a retail relationship with end users, they are entirely at the mercy of the retailers to drive the substitution of copper connections with fibre ones. This effect will be felt regardless of whether the UFBCo is Chorus or one of the regional providers.

The merger is thus likely to extend the life of the copper network beyond what it would have been had the merger not occurred. The risk is that this will decrease economic efficiency as the two networks (copper and fibre) will run in parallel longer than would have been the case without additional merger-induced investment. The alternative is that in order to induce more rapid UFB uptake (or timely shutdown of the copper network), there will have to be a substantial transfer of wealth from the UFBCo (or Chorus as the copper operator) to the retailers (e.g. discounted fibre access prices or other inducements). The only other alternative would be for the Telecommunications Commission to step in and substantially increase the copper access prices in order to discourage investment in sub-loop unbundling in the first place, or to accelerate substitution to fibre after the fact. However, under the current Act, the Commission's primary regulatory responsibility is the promotion of competition on the copper network. Its powers with regard to the fibre network are confined to the monitoring and enforcement of the terms agreed between the UFBCos and the government. Deviation from this brief would require explicit instruction from the government (under s 19A of the Telecommunications Act, the government can instruct the Commission in writing to have regard for its economic policies). Under this scenario, the proposed merger invokes the need for political, as well as economic consideration.

### **The 'Other Investment Problem'**

A similar, if not exacerbated, problem for the achievement of desired UFB uptake rates exists in relation to the fact that the merged firm itself has its own infrastructure (DOCSIS 3-enabled CATV) in two geographic markets – Wellington and Christchurch. The 'History' section shows that, despite only offering the connections in these two regions, the growth rate of broadband connections sold on the cable network in recent times is almost double that of DSL connections

available nationwide. As broadband uptake is strongly driven by the ISP retail relationship, depending upon the capacity of the CATV network, real potential exists for strong customer growth on this network from existing Vodafone broadband customers transferred.

The price paid for TCL will likely incorporate the value of these synergies. Hence as observers, we would expect that the higher the price paid for TCL, the more likely it is that we will observe a strategy promoting the migration of Vodafone copper internet customers to the cable network and not the UFB.

Telecom is unlikely to be affected by this, since it never had these retail customers in the first place. However Chorus stands to lose market share on copper. Chorus could maintain its copper market share by discounting the price for copper access in those areas where it faces the copper-CATV migration (just as Telecom did when faced by competition from TCL in the first place). But this places pressure on the Commission, which has recently moved to ‘re-average’ copper access prices. It is extremely difficult to sustain geographically averaged prices across the country in the face of selective infrastructure competition in a specific geographic location, whilst ensuring that the firm bound to offer them remains profitable<sup>16</sup>. This is attested by the complexity of the hotly-contested TSO provisions which sought to redress the imbalances arising from the ‘old’ Telecom facing ‘cherry-picked’ infrastructure competition in profitable but not unprofitable markets.

This raises a number of questions for the regulator:

- Is a separated Chorus required to offer low prices to all access seekers nationwide, or can it price differently in Christchurch and Wellington?
- Should Chorus respond, if the result is to move customers off copper quicker than would have been the case otherwise?
- How does the selective move in a small geographic area affect the prices charged by Chorus for all services over the country if its returns in these two areas dip below what might have been the case when the ULL prices were set, and financial viability comes into question?

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<sup>16</sup>For a fuller discussion, see Heatley & Howell (2010a)  
[http://iscr.org.nz/f560,16057/16057\\_Abolishing\\_the\\_TSO\\_Compensation\\_25-Mar-10\\_v3\\_.pdf](http://iscr.org.nz/f560,16057/16057_Abolishing_the_TSO_Compensation_25-Mar-10_v3_.pdf)

However, in the long run, it is the UFBCos (Chorus in Wellington and Enable in Christchurch) who will bear the cost of strategic migration to the CATV network. As customers become established on the faster CATV network, they are less likely to need to migrate to the UFB when it is available. Where there is only copper and fibre available, and Chorus is the provider of both, then it can to some extent internalise the costs of moving customers across networks by using its relationship with retailers. But when the retailer owns its own network and is not buying services from Chorus or the UFBCo for the customer, then the strategic options available to the UFBCos to capture market share are very much more limited. This problem arises because of the fundamental assumption made in the New Zealand case: that both fibre and copper were ‘natural monopoly infrastructures when mandating separation. In Christchurch and Wellington they are not. The Vodafone-TCL merger threatens to make this already existing problem much bigger than it would have been otherwise.

### **And Yet Another ‘Infrastructure Problem’**

As the capabilities of both copper and mobile technologies increase, the likelihood that there will be a distinction between broadband internet access on fixed line and mobile networks becomes more blurred. A Vodafone -TCL merger would create a firm with over 55% mobile market share and 30% fixed line market share. It is thus well-placed to use its stronger fixed line internet market share to increase the potential to sell all services over its networks - including ever-more-capable mobile connections in lieu of fixed line broadband, especially in those areas where it will take longer for the UFB to be deployed. Whilst Telecom can also sell connections on its mobile network, it lacks the full range of strategic options available to the merged firm, in respect of Wellington and Christchurch at least.

### **Conclusion**

In summary, therefore, it can be seen that the proposed merger throws up some very interesting challenges to be addressed by both the Telecommunications Commission, in respect of ongoing sector regulation, and the Commerce Commission, in evaluating the effects on the economy of the proposed merger. It also raises questions about the extent to which the matter may invoke political as well as economic and regulatory considerations.

The analysis to support the merger clearance application, in particular, will not be simple. There are clearly many different geographic, technological, customer and product dimensions to the markets which will be relevant to the assessment. In addition, the analysis is complicated by the

fact that the future of the market is influenced not just by normal market factors, but also government policy aspirations as they relate to the UFB project. This raises some very interesting questions as to how such an analysis should proceed given that policy concerns are typically outside the scope of a merger analysis. It will be interesting to see how the Commission approaches this analysis, and how the policymakers respond, should the current talks progress into a more formal offer.

We at ISCR watch with interest to see how this mooted merger proceeds.