NEW ZEALAND

TEL NZ	Outperform
Price 9 Nov 11	NZ$2.69

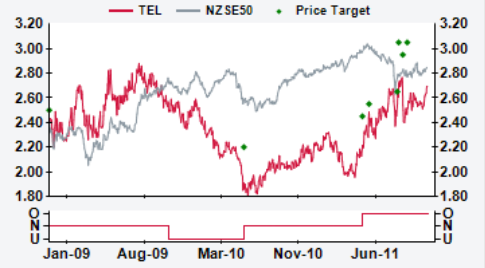
Volatility index		**Low**
12-month target	**NZ$**	**3.05**
12-month TSR	**%**	**+21.1**
Valuation	**NZ$**	**2.91**
- DCF (WACC 10.1%, beta 1.0, ERP 6.0%, RFR 6.0%)		
GICS sector		
Telecommunication Services		
Market cap	**NZ$m**	**5,178**
30-day avg turnover	**NZ$m**	**27.8**
Number shares on issue	**m**	**1,925**

Investment fundamentals

Year end 30 Jun		2011A	2012E	2013E	2014E
Revenue	m	5,104.0	4,984.8	4,994.8	5,024.6
EBIT	m	775.0	873.1	892.8	914.0
Reported profit	m	164.0	387.3	508.1	532.8
Adjusted profit	m	386.0	488.7	508.1	532.8
Gross cashflow	m	1,415.0	1,422.9	1,455.8	1,456.7
CFPS	¢	73.6	73.9	75.6	75.7
CFPS growth	%	-1.5	0.4	2.3	0.1
PGCFPS	x	3.7	3.6	3.6	3.6
PGCFPS rel	x	0.48	0.52	0.54	0.56
EPS adj	¢	20.1	25.4	26.4	27.7
EPS adj growth	%	-0.2	26.4	4.0	4.9
PER adj	x	13.4	10.6	10.2	9.7
PER rel	x	0.87	0.79	0.83	0.86
Total DPS	¢	20.0	20.3	22.1	23.3
Total div yield	%	7.4	7.5	8.2	8.7
Franking[1]	%	100	100	100	100
ROA	%	11.7	13.6	13.9	14.1
ROE	%	15.9	21.2	21.1	20.3
EV/EBITDA	x	3.8	3.8	3.7	3.7
Net debt/equity	%	72.0	73.6	60.5	49.3
P/BV	x	2.2	2.3	2.1	1.9

[1]NZ imputation credits are only able to be used by shareholders to offset NZ income tax liability.

TEL NZ vs NZSE50, & rec history



Note: Recommendation timeline - if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.

Source: FactSet, Macquarie Research, November 2011

(all figures in NZD unless noted)

10 November 2011
Macquarie Securities (Australia) Limited

Telecom NZ

Ready for solo Chorus

Event

- We review the outlook for Telecom's network business, Chorus, once its de-merger from the parent company takes effect from 1 December.

Impact

- As a standalone entity, we expect Chorus to have stable earnings, resistant to cyclical pressures. Operating within a framework of regulated and contractually agreed pricing means revenue growth is likely to be subdued and Chorus management will require an ongoing cost focus to maintain medium-term EBITDA growth. Our bottom-up forecasting sees CAGR for revenue and EBITDA from FY12-20 of +0.6% and -0.3% respectively.
- While earnings will be stable, FCF generation is likely to be more volatile due to shifts in Chorus's capex profile over three distinct phases. In the near-term (FY12-14) UFB deployment capex, as well as de-merger related systems build, will drive high capex and softer FCF. FCF will then increase in FY15 as some of the separation-related capex subsides, before gradually declining each year to FY19 as communal infrastructure capex remains steady but connections capex increases. After the Communal Infrastructure build completes in FY20, free cash generation should increase again – although this will be subject to a regulatory pricing review.
- Chorus valuation of $3.15 based on a DCF methodology, representing around 20% of our total consolidated Telecom valuation before the de-merger. This implies for Chorus an FY13 EV/EBITDA multiple of 4.2x and a dividend yield of 7.9%. We see dividends increasing by FY15 to 32.5cps as FCF picks up. By way of comparison to other utility/infrastructure-like assets, the FY13 EV/EBITDA multiples for Vector and Contact Energy are 8.1x and 10.8x respectively, while the dividend yields are 5.6% and 4.4%. We discuss in this note why it is dangerous to make direct comparisons between Chorus and other regulated assets.
- Key valuation sensitivities for Chorus come from (a) risks of capex blow-outs on the UFB project, (b) faster than expected take-up rate of UFB services, (c) lower than expected demand for fixed access products due to wireless substitution, and (d) uncertainty over regulated pricing outcomes from FY20. We view our base case assumptions toward these factors are conservative.

Earnings and target price revision

- No change.

Price catalyst

- 12-month price target: NZ$3.05 based on a DCF methodology.
- Catalyst: Shares trade ex-entitlement to the demerger on the ASX (21 Nov) and NZX (23 Nov). Demerger implementation on 30 Nov.

Action and recommendation

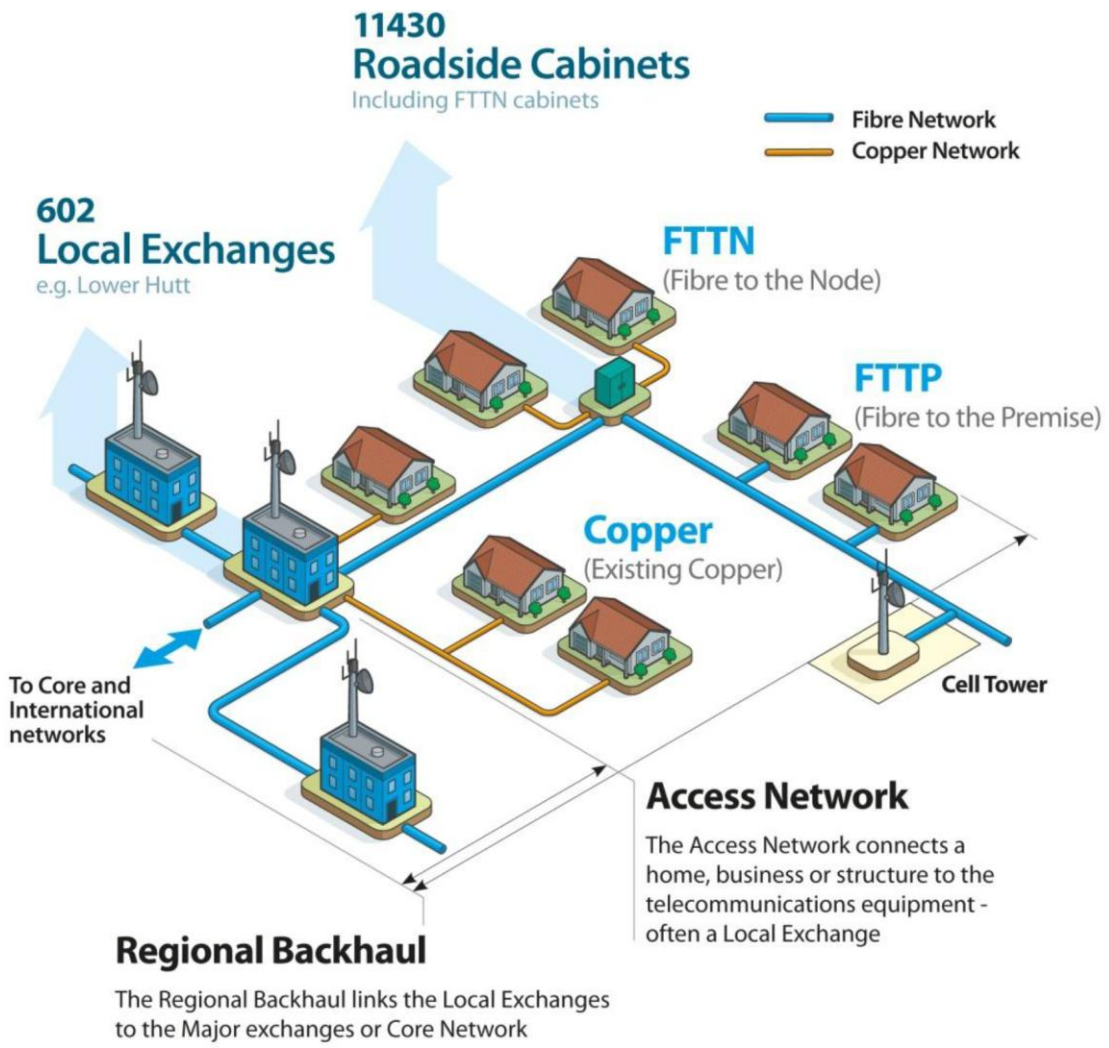
- Maintain outperform for *Telecom*, with a $3.05/sh target price. Our $3.15 valuation for *Chorus* is post a 5:1 share consolidation. On a pre-consolidation basis this would represent 63cps or ~20% of our Telecom valuation.

Overview

Chorus to be stand-alone operator of fixed access networks across New Zealand

- Post the de-merger, Chorus will operate independently of Telecom to provide fixed network access services to a range of access-seekers including Telecom, Vodafone and TelstraClear.
- Chorus's asset base to provide these services will include:
  - ⇒ Copper access network, including over 130,000 kms of copper cable
  - ⇒ Fibre to the node access network, including over 11,000 cabinets
  - ⇒ Extensive duct network
  - ⇒ Over 600 exchange buildings,
  - ⇒ Access electronics, including DSLAMs and some ethernet aggregation switches, and
  - ⇒ National fibre transit/backhaul infrastructure.
- As the UFB progresses, the asset base will also include extensive FTTP network elements.

Fig 1 Chorus asset base



Source: Telecom scheme booklet, November 2011

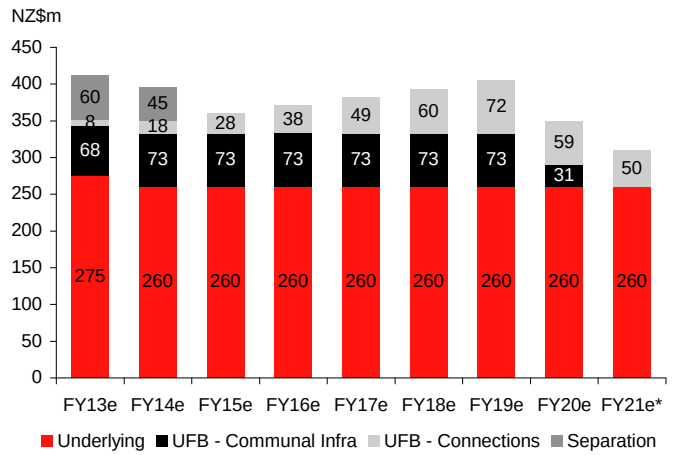
We see stable revenues, EBITDA over the medium term

- We expect Chorus to have stable earnings, resistant to cyclical pressures. Operating within a framework of regulated and contractually agreed pricing means product pricing is predictable, other than a pending decision on UBA pricing from December 2014. On this basis, we expect revenue growth to be subdued and that Chorus will require an ongoing cost focus to maintain medium-term EBITDA growth. Our bottom-up forecasting sees CAGR for revenue and EBITDA from FY12-20 of +0.6% and -0.3% respectively.

Three distinct phases of free cash generation

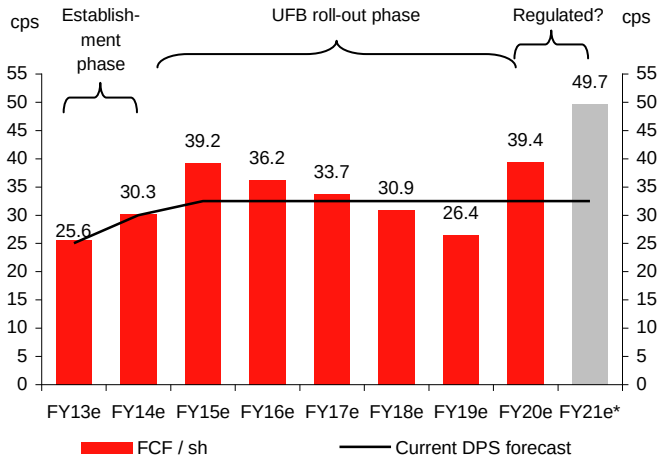
- While earnings will be stable, FCF generation is likely to be more volatile due to shifts in Chorus' capex profile over three distinct phases. Specifically,
  - ⇒ Phase 1: "Establishment phase" (FY12-14) – Here Chorus capex spikes as the company incurs a combination of start-up/separation capex, and also initial UFB roll-out capex (mostly OSS/BSS). Separation capex includes investment in systems, products and some core UFB infrastructure.
  - ⇒ Phase 2: "UFB roll-out phase" (FY15-19) – Through this period we see spend on communal infrastructure as being steady. However, connections related capex spend grows through this period as more homes are passed by the network, and the value proposition of the UFB improves due to increasing demand for high-bandwidth broadband.
  - ⇒ Phase 3: "Regulated/Steady-state phase" (FY20+) – The rollout of the communal infrastructure is completed by December 2019, which drives a FCF pick up in each of FY20 and FY21. Connections capex will remain a factor for a number of years to come. Ultimately, free cash generation through this period will be determined by the returns Chorus is allowed to generate by the applied regulatory regime.
- With respect to dividend policy, we see Chorus as having the capacity to increase its dividend payout to 32.5cps by FY15 (current policy is for 25cps in FY12, pro-rata). This will see Chorus gear up modestly through FY18-19 as capex peaks, however the completion of the communal infrastructure build mid-way by December 2019 will see the dividend easily covered by FCF.

Fig 2 Chorus capex profile (FY13-21)



Source: Macquarie Research, November 2011

Fig 3 Chorus FCFps vs DPS



Source: Macquarie Research, November 2011

DCF-based valuation of $3.15/sh (post 5:1 consolidation)

- We have used a DCF valuation as our primary valuation methodology. Under this valuation approach, around 63% of the value within Chorus is attributable to the terminal value. In estimating the terminal value, we have assumed regulated earnings from FY21 step down 10% from FY20 earnings under existing commercial UFB agreements.
- This $3.15/sh target price for Chorus implies an FY13 EV/EBITDA multiple of 4.2x and a dividend yield of 7.9%. We see dividends increasing by FY15 to 32.5cps as FCF picks up.

- By way of comparison to other utility/infrastructure like assets, the FY13 EV/EBITDA multiples for Vector and Contact Energy are 8.1x and 10.8x respectively, while the dividend yields are 5.6% and 4.4%.

Fig 4 Chorus' NZ utility/infrastructure peers trade at yields of ~5%*

		PER		Div Yield		EV/EBITDA		Net Debt / EBITDA	
Company	**Price**	**FY13e**	**FY14e**	**FY13e**	**FY14e**	**FY13e**	**FY14e**	**FY13e**	**FY14e**
Chorus	3.15	7.8	7.4	7.9%	10.3%	4.2x	4.1x	2.5x	2.5x
Contact Energy	5.65	21.4	20.0	4.4%	4.8%	10.8x	9.9x	3.3x	2.9x
Vector	2.57	15.5	15.1	5.6%	5.8%	8.1x	8.0x	3.9x	3.9x
Average NZ listed		**18.4**	**17.5**	**5.0%**	**5.3%**	**9.4x**	**8.9x**	**3.6x**	**3.4x**
APA Group	4.34	19.8	15.0	8.2%	8.2%	10.1x	9.5x	5.3x	5.1x
DUET Group	1.66	17.3	15.9	9.9%	10.2%	8.1x	7.9x	5.9x	5.8x
Envestra	0.63	14.2	10.8	9.5%	11.1%	9.5x	8.8x	6.6x	6.2x
Spark Infrastructure Group	1.21	11.4	11.0	8.8%	10.1%	5.9x	5.7x	0.2x	0.1x
SP AusNet	0.95	9.6	9.4	9.5%	10.5%	7.5x	7.3x	4.8x	4.8x
Average Aust listed		**12.9**	**10.8**	**9.3%**	**10.5%**	**7.5x**	**7.1x**	**4.1x**	**3.9x**
Average NZ/Aust listed		**14.3**	**12.5**	**8.2%**	**9.2%**	**8.0x**	**7.5x**	**4.0x**	**3.8x**

*Data current as at 4 November 2011.

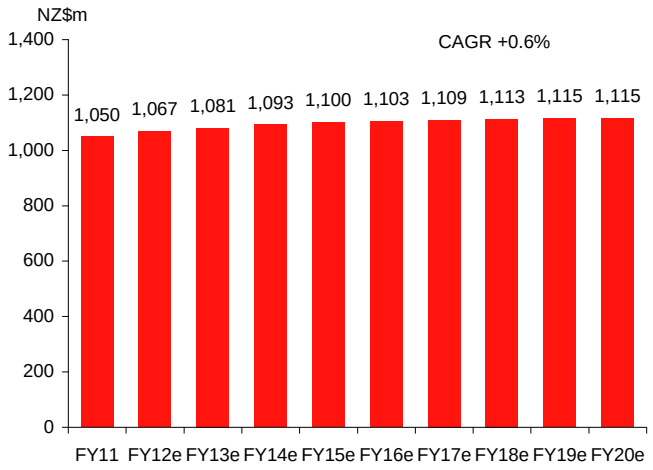
Source: Macquarie Research, November 2011

- Despite the comparisons above, we re-iterate that direct comparison to other utility/infrastructure stocks needs to be considered in the context of a number of characteristics specific to Chorus.
  - ⇒ Significant ($2bn+) investment in UFB capex that will not generate a corresponding earnings uplift;
  - ⇒ Execution risk for UFB capex deployment;
  - ⇒ The existence of substitute products from wireless networks;
  - ⇒ Uncertainty over terminal value due to a lack of clarity on regulatory outcomes from 2020.

Subdued revenue growth outlook (CAGR +0.6% FY12-20)

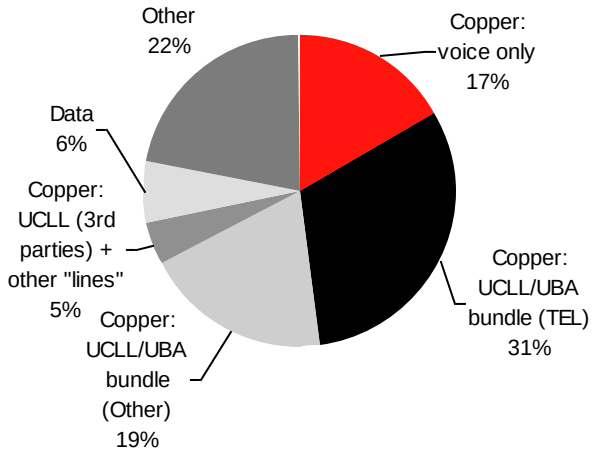
- Chorus will operate ~1.8m fixed access lines to New Zealand homes and businesses, as well as owning associated infrastructure such as exchanges, cabinets, and some backhaul. Telecom will be Chorus's key customer, representing over 80% of revenues in FY12.
- The largely regulated and contracted nature of Chorus' revenue streams provides limited scope for Chorus to generate material revenue growth over the medium term. Overall we forecast revenue CAGR of +0.6% from FY12 to FY20.

Fig 5 Revenue largely flat out to FY20



Source: Company data, Macquarie Research, November 2011

Fig 6 Chorus revenue breakdown (FY12)



Source: Macquarie Research, November 2011

- We see revenues as having three high-level drivers:
  - ⇒ *Demand for fixed line services in New Zealand:* Growth in households/businesses; Substitution to wireless products
  - ⇒ *Chorus market share for access services:* Chorus will face competition from existing network operators (TelstraClear, private fibre operators and future UFB offerings) in a number of markets;
  - ⇒ *Product mix:* Over 70% of Chorus' revenues will be derived from core UCLL, UBA and UFB products, each with its own price and margin. Other revenues will be predominantly derived from legacy data networks, co-location, backhaul and field services.

Fig 7 Key revenue drivers at Chorus

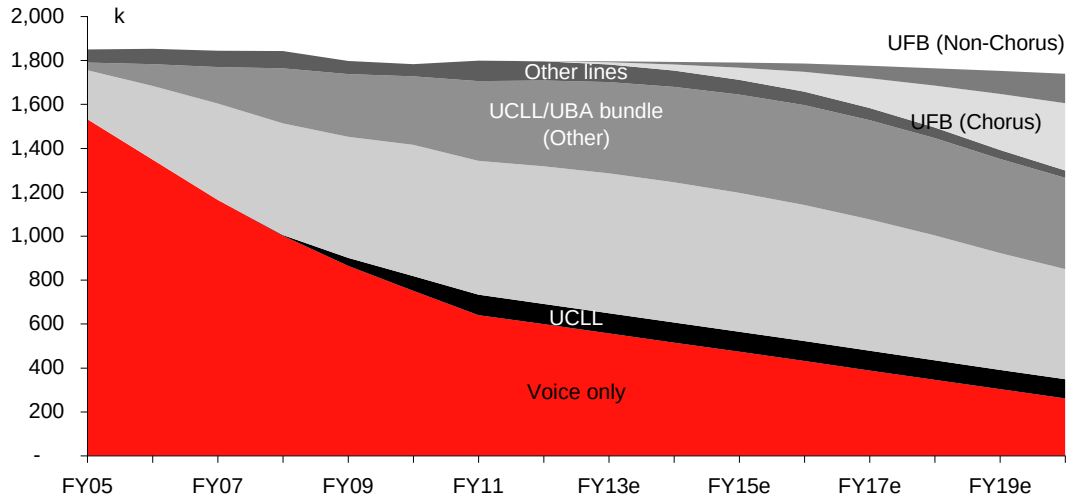
Driver	Status quo	Outlook
Growth in NZ premises	~1.65m NZ premises exist today.	We see forecast CAGR in NZ premises of 1.2% between FY12-20, consistent with historic trends.
Take-up of fixed line services	Current penetration levels in NZ are high. We estimate that penetration is currently 109.4% of households, and ~93% of total households and businesses.	Fixed line penetration in NZ remains high. We see penetration dropping from ~109.4% today to 95% (of HH numbers) by 2020 predominantly due to reduction in dual-line premises and also increased migration to wireless substitutes.
Chorus market share	Chorus currently has ~93% market share of fixed access connections today. There is only limited competition for residential access products from TelstraClear in Wellington and Christchurch, and localised fibre operators such as Citylink.	Chorus will face new competition over the next 8 years, from UFB partners in areas covering approximately 20% of households. We estimate this will lead to 10% decline in Chorus's market share from today.
Product mix	The 1.8m lines at Chorus today can be split between various products. We estimate: - UCLL: Voice only (35%) - UCLL: 3rd party (5%) - UBA (with UCLL, 54%) - UFB (0%) - Other lines (5%)	Voice only lines have dropped from being 55% to 35% of lines over the past 3 years, and we expect this trend to continue. UCLL take-up should increase for a few years, however the FTTN roll-out, and UFB roll-outs will lead to a decline in these lines over a longer time horizon. UFB demand is difficult to forecast - we expect 35% of lines by 2020 will be on the UFB. Product mix on the UFB is only a small sensitivity over the long-term given the convergence of product pricing.
Product pricing	Copper access products (voice only, UCLL, UBA) are all regulated by ComCom. UBA pricing is to be re-set on a cost-based methodology from December 2014. UFB pricing has been contractually agreed to through to 2019, and will be subject to regulatory outcomes after that.	Increased broadband penetration/bundling rates will lead to an overall ARPU uplift for Chorus, however this will be partly offset by higher UCLL take-up. Migration toward UFB products is likely to be slightly dilutive to ARPU initially, however price increases on entry level products and increased migration to higher bandwidth products will be positive for ARPUs over time.
Other data products	These are mostly data products sold to Gen-i.	This product set is in structural decline as the shift to IP data products sees externally owned corporate networks and UFB products act as substitutes to legacy data products.
Other revenues	Chorus will generate around 20% of its revenue from co-location, backhaul, and field services.	Overall, we see growth in "Other revenues" broadly in line with inflation due to increased demand for these products, and possibly boosted by agreements with other UFB partners.

Source: Macquarie Research, November 2011

Fixed line overview in New Zealand

- Fixed line penetration in New Zealand remains high at around 109% of households, or 93% of total households and businesses. The key structural shift in recent years has been the growth in broadband services, while the UFB rollout will be a trigger to a further shift in industry structure.

Fig 8 Breakdown of Chorus and UFB lines in NZ by product type, FY05-20e



Source: Company data, Macquarie Research, November 2011

Product pricing overview

- Pricing on existing copper products is regulated by ComCom. We expect pricing levels to remain stable, other than three adjustments that will come from changes to ComCom pricing principles, effective late-2014 (three years from separation date). We do not expect material pricing changes from these reviews.
- These changes in pricing principles include:
  - ⇒ *A shift from de-averaged to average UCLL pricing:* Current UCLL pricing is de-averaged at $19.41/month in urban areas and $35.83/month in rural areas. Averaged pricing will be applied from late-2014, which will drive UCLL to $23.93/month from that date.
  - ⇒ *A shift away from retail minus retail cost (RMRC) pricing principles for UBA, toward a cost-plus pricing methodology*: The pricing impact is less certain, and dependent on ComCom's assessment of the cost to Chorus from providing UBA. While there is a risk that this review will drive lower pricing in three years time, the reality is that this would in turn improve the economics of copper relative to fibre for access seekers – and hence slow the take-up of UFB services (in Chorus and non-Chorus regions). As slower take-up of the UFB is a positive for Chorus (because it delays capex requirements), there is a natural offset over time if UBA pricing is reviewed down. It is also worth noting that an outcome that saw lower copper pricing would also be a poor political outcome given it would further slow the migration to fibre services.
  - ⇒ *UCLL benchmark prices to be reviewed:* ComCom has very recently flagged it will undertake a review of benchmarks used to set UCLL pricing. The review will take place next year.

Fig 9 Chorus product pricing overview

Product	Description	Regulated?	Standard Terms Determination / Agreed pricing	Comments
UCLL	Rental of copper line as a product. Access seeker responsible for providing Layer 2 services. Telecom's POTS offering can be purchased directly from Chorus, who will take a small agency commission.	Yes.	Urban $19.41 Non-urban $35.83	Currently de-averaged, but will be averaged at $23.93/month from late 2014 (3 years after separation date).
UBA (with POTS)	Access to bandwidth product - effectively a wholesale broadband input.	Yes.	$21.47/month (averaged)	Fixed until 2014 on retail minus retail cost pricing methodology, then will shift to a cost-based pricing methodology. Cost-based price to be determined by late 2012.
UFB	Layer 2 service on fibre.	No. Contractual agreement on pricing until 2020.	Various, refer Figure 10	ComCom to regulate pricing from 2020. Pricing review to commence by xx 2016 and complete by xx 2019.

Source: Company data, Commerce Commission, Macquarie Research, November 2011

UFB pricing summary

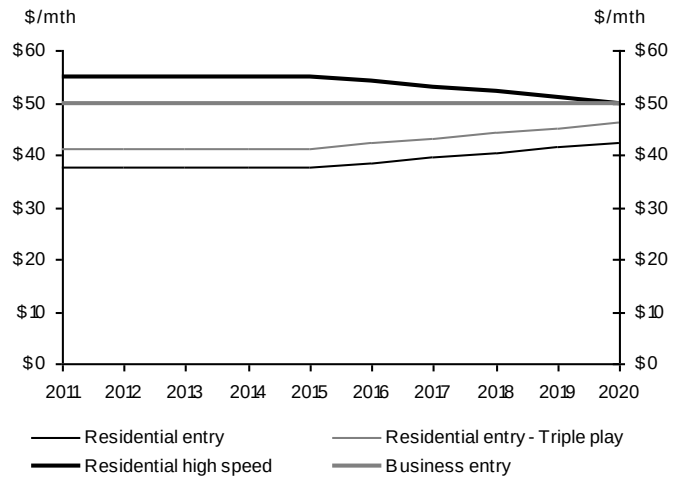
- Chorus has agreed to pricing of core fibre products on the UFB through to December 2019. Entry level broadband will be initially priced at a wholesale level at $37.50/month, with agreed pricing increases from 2015. Other key products are likely to be the higher-priced business products and also the high-bandwidth residential product (100Mbps, triple-play).
- Of note, UFB prices converge over time (entry level prices increase while high-bandwidth products get cheaper), which reduces the risk to Chorus earnings from any structural shifts in demand between these offerings.

Fig 10 Pricing of key UFB products

Product	Download speed	2011 price ($/mth)	2020 price ($/mth)	Comments
Residential entry	30 Mbps	$37.50	$42.50	Price remains $37.50 until 30/06/2015, then increases by $1 each year until reaching $42.50 in 2020.
Residential entry - Triple play	30 Mbps	$41.25	$46.25	Price remains $41.25 until 30/06/2015, then increases by $1 each year until reaching $46.25 in 2020.
Residential high speed	100 Mbps	$55.00	$49.90	Price remains $55.00 until 30/06/2015, then decreases by $1 each year until reaching $49.90 in 2020 (the price reduction in 2020 is $1.10).
Business entry	30 Mbps	$49.95	$49.95	No change in price cap between 2011 and 31/12/2019.

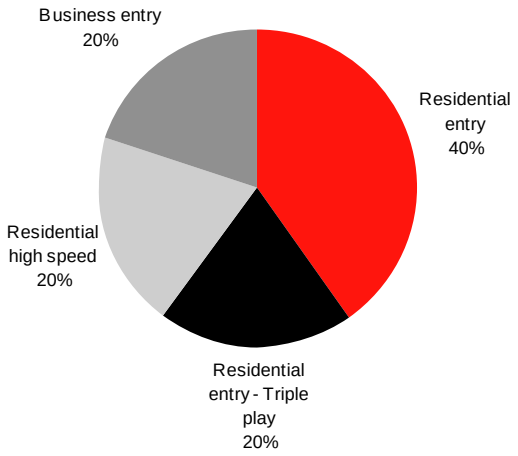
Source: Company data, Macquarie Research, November 2011

Fig 11 UFB pricing converges after 2015



Source: Company data, Macquarie Research, November 2011

Fig 12 Majority of UFB lines expected to be entry level



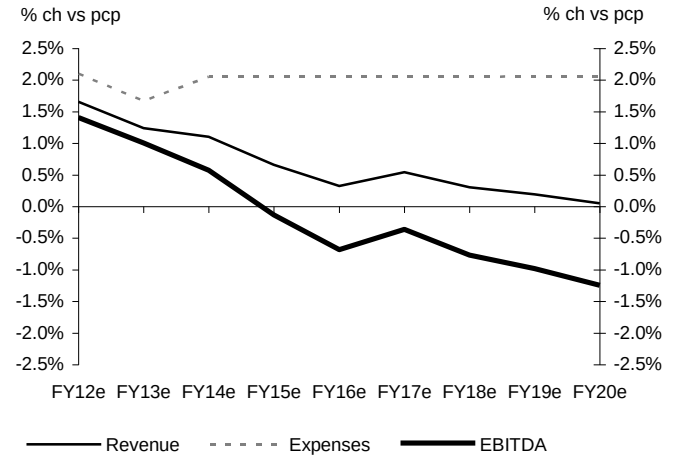
Note: MRE assumption on the split of UFB lines between key products by 2020.

Source: Macquarie Research, November 2011

Earnings overview: Limited scope for cost-out sees flat EBITDA

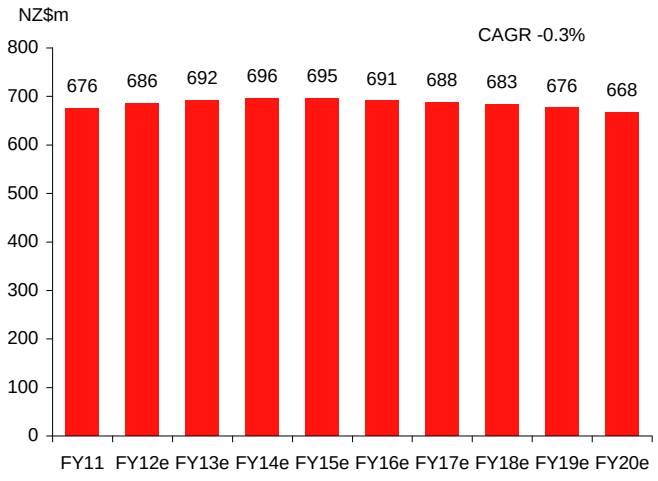
- Against the backdrop of flat revenues, we expect Chorus to maintain a sharp focus on the management of its costs. This is particularly important in the context of (a) limited revenue growth as described earlier, and (b) a predominantly fixed cost base.
- Over time, cost management is likely to focus on process improvement to sustainably reduce operating costs. A headwind to these cost reduction efforts will come from new costs introduced to maintain and operate the UFB network in parallel to the existing copper access network.
- The bulk of Chorus opex relates to maintaining and operating its network infrastructure. Chorus employs approximately 500 staff directly, and relies on an additional 2,000+ contractors.
- There is also a net cost to New Telecom for the provision of shared services. Some of these costs will be taken in house over time, although we do not expect this shift to materially alter the cost base on its own.
- **Overall, we see subdued cost growth (CAGR of +2.0% FY12-20) driving broadly flat Group EBITDA (CAGR of -0.3% FY12-20).**

Fig 13 Chorus earnings growth profile (FY11-20)



Source: Company data, Macquarie Research, November 2011

Fig 14 Chorus EBITDA profile



Source: Macquarie Research, November 2011

Capex reflects UFB participation

- With Chorus earnings profile likely to be relatively flat over time, the key determinant of free cash generation will be capex requirements.
- We see five key drivers of capex for Chorus:
  - ⇒ *Business sustaining capex (~$80m pa)*: Mostly network maintenance capex, but also capex spend in order to conform with regulatory requirements. The latter should be reducing in a structurally separated world.
  - ⇒ *Growth capex (~$180m pa)*: Relates to connections growth, investment for rising volumes, IT requirements and UFB product development.
  - ⇒ *Separation capex (~$155m across FY12-14)*: Investment related to the development of systems specifically related to Chorus's structural separation, and in particular with respect to the investment in OSS/BSS for the UFB network.
  - ⇒ *UFB communal infrastructure (~$190m pa through to Dec 2019):* Telecom estimates that the communal infrastructure build will cost between $1.4bn and $1.6bn over the next 8.5 years, in order to pass over 830k premises. The Government will contribute to this build in the form of a debt and equity issuance. This contribution is on very generous terms, and significantly subsidises the communal infrastructure rollout.
  - ⇒ *UFB connection capex (~$1,000 per connection in real terms):* This capex spend is variable dependant on the rate of UFB connections. Chorus estimates the cost per connection is between $900 and $1,100 per premise (in real terms). We estimate connection rates will increase over time, and hence capex for this purpose will also increase over time.

Fig 15 Chorus capex reflects UFB participation

NZ$m	FY11p	FY12e	FY13e	FY14e
Network maintenance	51	50	50	50
Regulatory requirements	213	70	25	25
Operational improvements	5	5	5	5
Total business sustaining	**269**	**125**	**80**	**80**
Copper growth	22	22	25	25
Fibre growth	52	52	60	60
Common network growth	57	55	60	60
IT and other growth	10	10	10	10
UFB product development		40	40	25
Total growth initiatives	**141**	**179**	**195**	**180**
UFB systems investment		50	50	20
Other separation capex		10	10	25
Separation capex	**-**	**60**	**60**	**45**
UFB capex (incl. CFH contribution)	-	91	187	209
CFH contribution	-	56	111	119
Net UFB capex	**-**	**35**	**76**	**91**
Total Chorus capex - pre CFH contribution	410	455	522	514
Total Chorus capex – net of CFH contribution	410	400	411	396

Source: Company data, Macquarie Research, November 2011

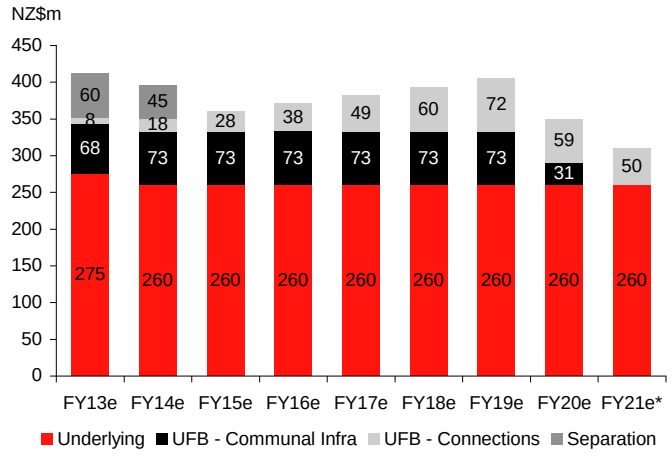
Three distinct phases of FCF generation. Dividends likely to rise.

- We see Chorus as having three distinct phases of free cash flow during its life:
  - ⇒ Phase 1: "Establishment phase" (FY12-14) – Here Chorus capex spikes as the company incurs a combination of start-up/separation capex, and also initial UFB roll-out capex. Separation capex includes investment in systems, products and some core UFB infrastructure.
  - ⇒ Phase 2: "UFB roll-out phase" (FY15-19) – Through this period we see spend on communal infrastructure as being steady. However, connections related capex spend grows through this period as more homes are passed by the network, and the value proposition of the UFB improves due to increasing demand for high-bandwidth broadband.
  - ⇒ Phase 3: "Regulated/Steady-state phase" (FY20+) – The rollout of the communal infrastructure is completed by December 2019, which drives a FCF pick up in each of FY20 and FY21. Connections capex will remain a factor for a number of years to come. Ultimately, free cash generation through this period will be determined by the returns Chorus is allowed to generate under the applied regulatory regime.
- On this basis, we estimate peak capex in relation to the UFB program to occur in FY19, which assumes this is when connection rates peak during the roll-out phase.

Scope to increase dividends to 32.5cps from FY14

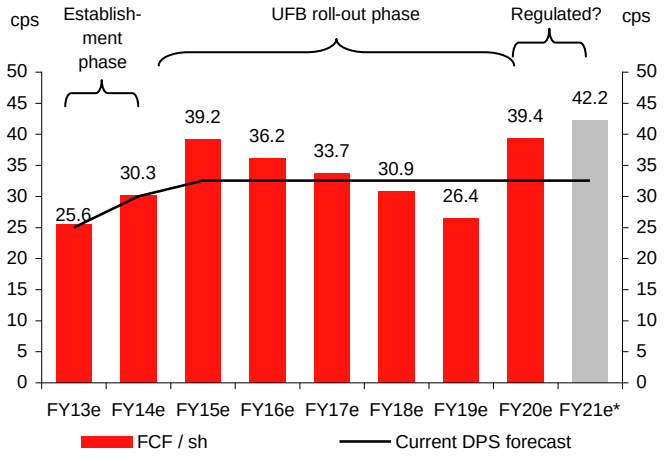
- With respect to dividend policy, we see Chorus as having the capacity to increase its dividend payout to 32.5cps by FY15 (current policy is for 25cps in FY12, pro-rata). This will see Chorus gear up modestly through FY18-19 as capex peaks, however the completion of the communal infrastructure build mid-way by December 2019 will see the dividend easily covered by FCF.

Fig 16 Chorus capex profile (FY13-21)



Source: Company data, Macquarie Research, November 2011

Fig 17 Chorus FCFps vs DPS



*FY21 estimate subject to regulatory outcomes. 10% EBIT reduction assumed.

Source: Macquarie Research, November 2011

The Government's contribution to Chorus will be via CFH Securities

- The contribution from the Government/Crown Fibre Holdings (CFH) to Chorus in relation to the rollout of communal infrastructure for the UFB program will be structured as "CFH Securities". The maximum value of these securities will be NZ$929m and they will be structured as 50% CFH Debt Securities and 50% CFH Equity Securities.
- The key features of the CFH Debt Securities are:
  - ⇒ unsecured, non-interest bearing and will carry no voting rights;
  - ⇒ Include a senior portion and a subordinated portion. The senior portion is calculated as the PV of the amount repayable, calculated using a discount rate of 8.5%. The subordinated portion will be the difference between total CFH Debt Securities outstanding and the senior portion;

⇒ Chorus will need to redeem the CFH Debt Securities in tranches from 2025 to 2036 (at the latest). The redemption profile is dependent on fibre take-up. Should fibre take-up at 2020 be less than 20%, the repayment period is accelerated.

- The key features of the CFH Equity Securities are:

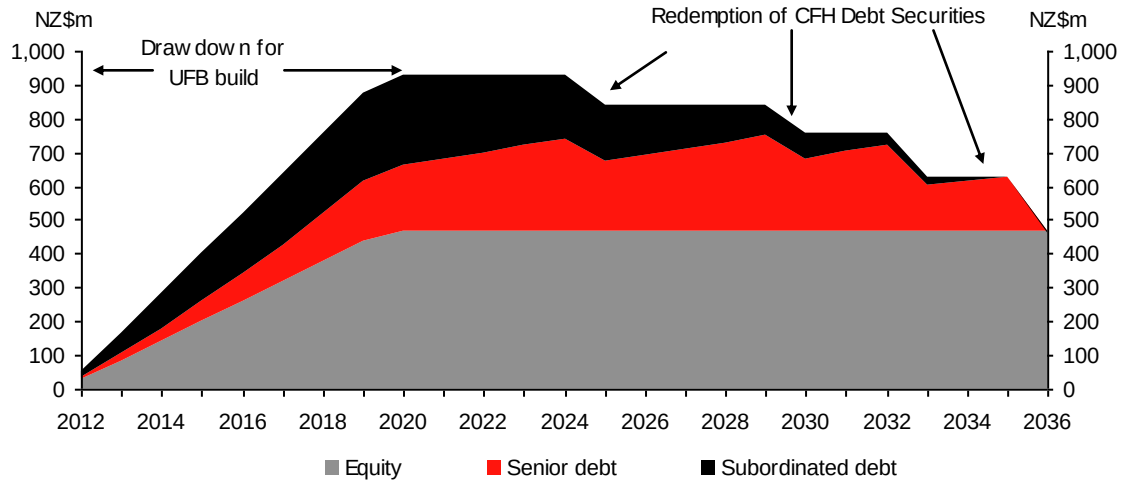
⇒ Non-voting, preference shares;

⇒ Not subject to dividends until 2025. The portion of CFH Equity Securities that are entitled to dividends will increase from 2025, and will increase at a faster rate should fibre-take up at 2020 be less than 20%;

⇒ Dividends will be paid 6-months in advance and will be equal to a reference rate based on the NZ 180 day bank bill rate plus a margin of 6% per annum;

⇒ Chorus can redeem CFH Equity Securities at any time by either a cash payment or the issue of ordinary Chorus shares. On our back of the envelope analysis, redemption of these securities is a logical financial decision from around 2033, at which point capital market funding should be cheaper than the cost of these securities. This transaction has only a marginal valuation impact (it is 20 years away), and for simplicity we have assumed perpetual ownership of these instruments.

Fig 18 Profile of CFH Securities



Notes: (1) Profile assumes fibre take-up does not reach 20% by 2020. (2) Assumes CFH equity not redeemed.
Source: Company data, Macquarie Research, November 2011

Chorus aiming for investment grade credit rating; ND/EBITDA of <3.5x

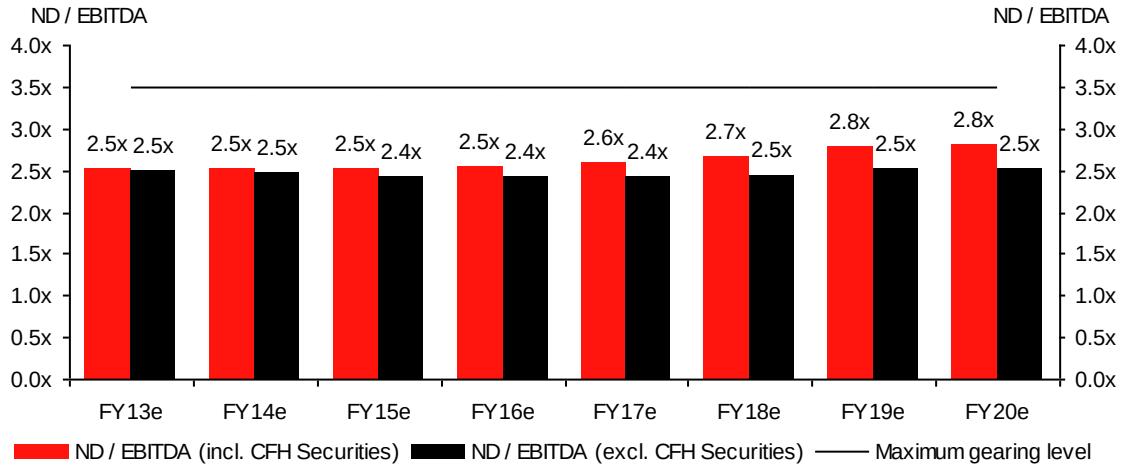
- Chorus will target net debt to EBITDA not materially exceeding 3.5x on a long run basis. Immediately following the demerger, net debt is expected to be ~$1.7bn – equivalent to ~2.5x ND/EBITDA.
- Chorus aims to maintain an investment grade credit rating (BBB) and has been assigned preliminary ratings by S&P (BBB/Stable) and Moody's (Baa2/Stable).
- The dividend policy from FY13 onwards remains a matter for the Chorus Board, however guidance for FY12 dividends was provided as part of the demerger process. Chorus expects to pay an FY12 dividend of 25cps, pro-rated to reflect the post-Demerger period (ie. ~7 months). The first dividend is expected to be declared post 30 June 2012.

Dividend upside likely from FY14

- Chorus' target gearing metrics discussed above are impacted by the senior portion of the CFH Debt Securities. The value of these securities is included in Chorus' net debt for the purposes of the targeted ND / EBITDA ratio of 3.5x.

- Based on our estimates during the forecast period (to 2020), the CFH Debt Securities have minimal impact on Chorus' gearing levels. By 2020 we estimate the value of the senior portion of CFH Debt Securities to be $200m, representing 0.3x EBITDA. Including the impact from the CFH Debt Securities, we see ND / EBITDA peaking at 2.8x in FY20. *This analysis assumes dividends of 32.5cp from FY15.*

Fig 19 Chorus ND / EBITDA profile



Source: Macquarie Research, November 2011

Valuation overview

$3.15/sh; 4.2x EV/EBITDA and 7.9% dividend yield

- We have used a DCF valuation as our primary valuation methodology for Chorus. Under this valuation approach, around 63% of the value is attributable to the terminal value.
- This implies for Chorus an FY13 EV/EBITDA multiple of 4.2x and a dividend yield of 7.9%. We see dividends increasing by FY15 to 32.5cps as FCF picks up.
- By way of comparison to other utility/infrastructure like assets, the FY13 EV/EBITDA multiples for Vector and Contact Energy are 8.1x and 10.8x respectively, while the dividend yields are 5.6% and 4.4%.

Fig 20 Chorus' NZ utility/infrastructure peers trade at yields of ~5%*

		PER		Div Yield		EV/EBITDA		Net Debt / EBITDA	
Company	**Price**	**FY13e**	**FY14e**	**FY13e**	**FY14e**	**FY13e**	**FY14e**	**FY13e**	**FY14e**
Chorus	3.15	7.8	7.4	7.9%	10.3%	4.2x	4.1x	2.5x	2.5x
Contact Energy	5.65	21.4	20.0	4.4%	4.8%	10.8x	9.9x	3.3x	2.9x
Vector	2.57	15.5	15.1	5.6%	5.8%	8.1x	8.0x	3.9x	3.9x
Average NZ listed		**18.4**	**17.5**	**5.0%**	**5.3%**	**9.4x**	**8.9x**	**3.6x**	**3.4x**
APA Group	4.34	19.8	15.0	8.2%	8.2%	10.1x	9.5x	5.3x	5.1x
DUET Group	1.66	17.3	15.9	9.9%	10.2%	8.1x	7.9x	5.9x	5.8x
Envestra	0.63	14.2	10.8	9.5%	11.1%	9.5x	8.8x	6.6x	6.2x
Spark Infrastructure	1.21	11.4	11.0	8.8%	10.1%	5.9x	5.7x	0.2x	0.1x
SP AusNet	0.95	9.6	9.4	9.5%	10.5%	7.5x	7.3x	4.8x	4.8x
Average Aust listed		**12.9**	**10.8**	**9.3%**	**10.5%**	**7.5x**	**7.1x**	**4.1x**	**3.9x**
Average NZ/Aust listed		**14.3**	**12.5**	**8.2%**	**9.2%**	**8.0x**	**7.5x**	**4.0x**	**3.8x**

*Data current as at 4 November 2011.

Source: Macquarie Research, November 2011

Setting a framework around a terminal value for Chorus

- Contractually agreed UFB pricing extends through to December 2019. Access pricing after this time is unclear and will be subject to a review by ComCom. This review is set to commence by 2016 and conclude by 2019.
- The final pricing outcome and implications are uncertain and difficult to estimate as a number of different approaches could be taken by the regulator in 2016. For example, ComCom could agree to any of the following pricing principles to be applied from 2020:
  - ⇒ Estimate a RAB for the Chorus access network, and allow a regulated return on that RAB;
  - ⇒ Benchmark access pricing against international comps at the time;
  - ⇒ Agree to a new period of contractually agreed pricing, this time between Chorus and its customers;
  - ⇒ Some other approach altogether.
- As mentioned, each of these methodologies could potentially deliver a very different long-run earnings profile for Chorus. Even within these methodologies, a wide range of assumptions means a wide range of outcomes. For example, there are a number of ways ComCom could calculate a RAB for Chorus. Once a RAB has been established it is also important to note that some of the key inputs that will determine an allowable return on that RAB are subjective.

Unlikely, in our view, that product pricing would rise in real terms post-2019

- We view it highly unlikely that product pricing would rise post-2019, given there is little precedent for regulatory intervention driving price inflation in telco services. As such, we view a best-case outcome for Chorus would be a continuation of existing contractually agreed product pricing, perhaps with inflation-linked increases over time. This which would lead to modest ARPU increases in line with inflation and ongoing migration to higher bandwidth products.

Some high level thoughts to help frame terminal valuation

- Alternatively, ComCom could impose lower pricing via any of the methodologies above. In framing a RAB approach, we note the following issues as being of some relevance – albeit still inconclusive – for analysing where outcomes from this approach might fall.
  - ⇒ **Implied RAB at contractually agreed pricing - $3.0bn:** The $3.0bn number is arrived at by looking at our forecast EBIT for Chorus in FY20 of $288m, and using this to reverse-engineer a RAB based on an allowed pre-tax WACC of 9.7%. We think it is highly unlikely that a regulatory reset in FY20 will lead to higher returns, and as such view the RAB output under this methodology as a likely ceiling on any eventual RAB;
  - ⇒ **Accounting book value of Chorus assets at 31 December 2019 - $2.9bn:** This analysis takes the accounting book value of Chorus at 30 June 2020 (based on Macquarie estimates). It is highly subjective approach as it is based on our earnings and capex assumptions over a long period. In addition, it is worth noting that accounting-based valuations can differ materially from regulatory valuations.
  - ⇒ **Estimating the depreciated optimised replacement cost (DORC) of Chorus's UFB assets at 31 December 2019 - $1.8bn:** We have estimated the DORC of the Chorus UFB assets at $1.8bn, based on the capex outlay and estimated depreciation of the asset through to December 2019 (inflation adjusted). *This represents just one element of the Chorus network, and excludes an estimation of the value of the copper/FTTN network, the duct network, exchange buildings, and some of the active network elements. Hence, it should represent a floor for any RAB calculation, and nothing more.*

RAB of between $1.8bn and $2.9bn provides a wide range to help frame valuation analysis

- Broadly speaking, the DORC of Chorus's UFB assets should act as a base to Chorus' RAB. Of course, it is materially under-stating true DORC for the broader network, given the network elements that are excluded from this approach.
- Meanwhile, if our theory holds true that prices wont go up (other than for inflation-linked adjustments) in a regulated environment post December 2019, then our "implied RAB" calculation should provide a valuation ceiling. **Combined, this would imply that Telecom's RAB at December 2019 will sit somewhere between $1.8bn-2.9bn. We would argue that likely regulated outcomes would be heavily skewed towards the top end of this range.**

Our base case assumes a 10% decrease in EBIT once the contractual agreements roll off in 2020

- If we lean toward the conclusion that an estimated RAB across the broader Chorus asset base will support price levels at the time, there exists some comfort against a significant negative price shock in eight years time.
- From a valuation perspective, we have assumed a 10% reduction in EBIT at this point, which aims to balance a wide range of alternatives as discussed. If this implies a RAB of $1.61bn, and we apply a typical infrastructure/utility type RAB multiple of 1.15x at that point, this implies a terminal valuation for Chorus of $1.85bn.

Key valuation sensitivities

Fig 21 Chorus key valuation sensitivities

Valuation metric	Base case	Sensitivity
Capex		
UFB - Communal Infrastructure	Total cost of $1.5bn. Completed by December 2019.	A $100m increase in capex required for UFB Communal Infrastrucutre (spread equally over the build period) would reduce our Chorus valuation by $69m or 18cps.
UFB - Premise connections	35% take-up by FY20	A 5% increase in UFB take-up by FY20 would decrease our Chorus valuation by $74m or 19cps.
Underlying	Underlying capex of $260m per annum on maintenance and non-UFB growth projects.	A $10m reduction in underlying annual capex would increase our Chorus valuation by $100m or 26cps.
Operations		
Demand for fixed line services	Fixed line penetration of 95% of households by FY20 (down from 109% today).	A 5% reduction in fixed line penetration (measured as a percentage of households) would decrease our Chorus valuation by $212m or 55cps.
EBITDA margins	EBITDA margins of 64% today falling to 60% in FY20.	A 1% increase in FY20 EBITDA margins would increase our Chorus valuation by $70m or 18cps.
Other		
Termination value assumptions	15% reduction in EBIT in FY21 due to regulatory re-set	If FY21 EBIT were to be 5% above our base case scenario, our Chorus valuation would increase by $100m or 26cps.

Source: Macquarie Research, November 2011

Experienced fixed network management team headed by Mark Ratcliffe

- The Chorus management team will consist of the following key executives:
  - ⇒ **Mark Ratcliffe, CEO & Executive Director:** Mark was appointed as CEO of Chorus in March 2008, and has been a part of the Telecom executive team since 1999. During 2010 Mark was seconded to lead a team focussed on Telecom's participation in the UFB program.
  - ⇒ **Andrew Carroll, CFO:** Andrew was announced as Chorus CFO on 19 October 2011, and has worked for Telecom since 2002. He was the Finance lead on the UFB negotiations and has previously held senior roles in Telecom's corporate finance division.
  - ⇒ **Ed Beattie, GM of Property & Network Operations:** Ed joined Telecom in 1979 and has been involved in most major network programmes since then. Most recently he was involved in the delivery of Chorus' FTTN program.
  - ⇒ **Chris Dyhrberg, GM of Network Build:** Chris will be responsible for the network investment, planning, capital management and rollout of Chorus' UFB and RBI related networks. He has previously been involved in the unbundling of Telecom's local copper network and the operational separation of Telecom.

Chorus

10 November 2011

Interim results		1H13e	2H13e	1H14e	2H14e
Sales Revenue	$m	539	542	545	547
Total Operating Revenue	**$m**	**539**	**542**	**545**	**547**
EBITDA	**$m**	**345**	**348**	**347**	**349**
Depreciation	$m	172	171	170	169
Amortisation	$m	7	7	7	7
Consolidated EBIT	**$m**	**166**	**170**	**170**	**173**
Non-recurring items	$m	0	0	0	0
Share of Associates	$m	0	0	0	0
Reported EBIT	**$m**	**166**	**170**	**170**	**173**
Net Interest expense	$m	61	61	61	61
Pre-Tax Profit	**$m**	**105**	**108**	**108**	**112**
Tax consolidated	$m	29	30	30	31
Tax on NRIs	$m	0	0	0	0
Total tax expense	$m	29	30	30	31
Net profit after tax	**$m**	**75**	**78**	**78**	**81**
Outside equity interests	$m	0	0	0	0
Reported Earnings	**$m**	**75**	**78**	**78**	**81**
Adjusted Earnings	**$m**	**75**	**78**	**78**	**81**

Profit and Loss ratios		1H13e	2H13e	1H14e	2H14e
PER (adj Earnings)	x	8.0	7.7	7.7	7.5
EPS (Reported)	c	19.6	20.3	20.3	20.9
EPS (Adjusted)	c	19.6	20.3	20.3	20.9
DPS	c	12.5	12.5	15.0	15.0
Dividend Yield	%	4.0%	4.0%	4.8%	4.8%
EBITDA margin	%	64.0%	64.2%	63.7%	63.8%
Effective tax rate	%	28%	28%	28%	28%
Payout ratio	%	63.8%	61.7%	74.0%	71.7%
EV/EBIT	x	8.8x	8.7x	8.6x	8.5x
EV/EBITDA	x	4.2x	4.2x	4.2x	4.2x
P/FCFPS	x	10.6x	14.6x	10.1x	10.6x
FCF Yield	%	9.4%	6.8%	9.9%	9.4%

Balance sheet ratios		1H13e	2H13e	1H14e	2H14e
ROE	%	25.5%	23.1%	20.3%	18.8%
ROFE	%	19.3%	19.6%	19.8%	20.1%
ROA	%	12.1%	12.1%	11.7%	11.6%
Net Debt	$m	1,735	1,749	1,746	1,756
Net Debt/Equity	%	274.1%	238.6%	211.0%	191.8%
Net Debt/EBITDA	x	2.5x	2.5x	2.5x	2.5x
Net Interest Cover (EBIT)	x	2.7x	2.8x	2.8x	2.8x
Net Interest Cover (EBITDA)	x	5.6x	5.7x	5.7x	5.7x
Price/NTA	x	3.0x	2.4x	2.1x	1.8x
NTA per share	$	1.0	1.3	1.5	1.7
EFPOWA	m	384.9	384.9	384.9	384.9

Cashflow Analysis		1H13e	2H13e	1H14e	2H14e
EBITDA	$m	345	348	347	349
- Incr. in WC	$m	0	0	0	0
- Net interest expense	$m	(61)	(61)	(61)	(61)
- Tax paid	$m	(29)	(30)	(30)	(31)
+ Other op. cashflows	$m	0	0	0	0
Total operating cashflows	**$m**	**254**	**256**	**255**	**257**
- Capex	$m	(241)	(281)	(255)	(259)
- Acquisitions / (Divestments)	$m	0	0	0	0
+ Other inv. Cashflows	$m	0	0	0	0
Total investing cashflows	**$m**	**(241)**	**(281)**	**(255)**	**(259)**
- Dividends paid	$m	(48)	(48)	(48)	(58)
+ Equity raisings	$m	0	0	0	0
- Debt raisings	$m	(9)	7	(12)	1
+ Other fin. cashflows	$m	44	66	59	59
Total Financing cashflow	**$m**	**(13)**	**25**	**(0)**	**2**
Net Change in cash/debt	**$m**	**0**	**0**	**0**	**0**

Profit & Loss		FY13e	FY14e	FY15e	FY16e
Sales Revenue	$m	1,081	1,093	1,100	1,103
Total Operating Revenue	**$m**	**1,081**	**1,093**	**1,100**	**1,103**
EBITDA	**$m**	**692**	**696**	**695**	**691**
Depreciation	$m	343	340	336	333
Amortisation	$m	14	14	14	21
EBIT	**$m**	**336**	**343**	**346**	**337**
Non-recurring items	$m	0	0	0	0
Associates/JV's	$m	0	0	0	0
Reported EBIT	**$m**	**336**	**343**	**346**	**337**
Net interest expense	$m	123	122	121	120
Pre-Tax Profit	**$m**	**213**	**220**	**225**	**218**
Tax consolidated	$m	60	62	63	61
Tax on NRIs	$m	0	0	0	0
Total tax expense	$m	60	62	63	61
Profit after tax	**$m**	**153**	**159**	**162**	**157**
Outside equity interests	$m	0	0	0	0
Reported Earnings	**$m**	**153**	**159**	**162**	**157**
Adjusted Earnings	**$m**	**153**	**159**	**162**	**157**

Profit and Loss ratios		FY13e	FY14e	FY15e	FY16e
PER (adj Earnings)	x	7.9	7.6	7.5	7.7
EPS (Reported)	c	39.9	41.2	42.1	40.7
EPS (Adjusted)	c	39.9	41.2	42.1	40.7
DPS	c	25.0	30.0	32.5	32.5
Dividend Yield	%	8.0%	9.6%	10.3%	10.3%
EBITDA margin	%	64.1%	63.7%	63.2%	62.6%
Effective tax rate	%	28%	28%	28%	28%
Payout ratio	%	62.7%	72.8%	77.2%	79.8%
EV/EBIT	x	8.7x	8.5x	8.4x	8.5x
EV/EBITDA	x	4.2x	4.2x	4.2x	4.2x
P/FCFPS	x	6.1x	5.2x	4.0x	4.3x
FCF Yield	%	8.1%	9.6%	12.5%	11.5%

Balance sheet ratios		FY13e	FY14e	FY15e	FY16e
ROE	%	24.0%	19.6%	16.6%	13.8%
ROA	%	19.4%	19.9%	20.5%	20.1%
ROFE	%	11.6%	11.2%	10.9%	10.2%
Net Debt	$m	1,749	1,756	1,746	1,755
Net Debt/Equity	%	238.6%	191.8%	159.8%	138.7%
Net Debt/EBITDA	x	2.5x	2.5x	2.5x	2.5x
Net Interest Cover (EBIT)	x	2.7x	2.8x	2.9x	2.8x
Net Interest Cover (EBITDA)	x	5.6x	5.7x	5.7x	5.8x
Price/NTA	x	2.4x	1.8x	1.5x	1.2x
NTA per share	$	1.3	1.7	2.2	2.5
EFPOWA	m	384.9	384.9	384.9	384.9

Cashflow Analysis		FY13e	FY14e	FY15e	FY16e
EBITDA	$m	692	696	695	691
- Incr. in WC	$m	0	0	0	0
- Net interest expense	$m	(123)	(122)	(121)	(120)
- Tax paid	$m	(60)	(62)	(63)	(61)
+ Other op. cashflows	$m	0	0	0	0
Total operating cashflows	**$m**	**510**	**512**	**511**	**510**
- Capex	$m	(522)	(514)	(479)	(490)
- Acquisitions / (Divestments)	$m	0	0	0	0
+ Other inv. Cashflows	$m	0	0	0	0
Total investing cashflows	**$m**	**(522)**	**(514)**	**(479)**	**(490)**
- Dividends paid	$m	(96)	(106)	(120)	(125)
+ Equity raisings	$m	0	0	0	0
- Debt raisings	$m	(2)	(11)	(31)	(14)
+ Other fin. cashflows	$m	111	119	119	119
Total Financing cashflow	**$m**	**12**	**2**	**(32)**	**(21)**
Net Change in cash/debt	**$m**	**0**	**0**	**0**	**0**

Balance Sheet		FY13e	FY14e	FY15e	FY16e
Cash	$m	50	50	50	50
Receivables	$m	89	90	90	91
Inventories	$m	12	12	12	12
Investments	$m	0	0	0	0
Property, plant & equipment	$m	2,495	2,655	2,785	2,921
Intangibles	$m	227	227	227	227
Other Assets	$m	0	0	0	0
Total Assets	**$m**	**2,872**	**3,034**	**3,164**	**3,301**
Payables	$m	104	105	105	106
Short Term Debt	$m	150	150	150	150
Long Term Debt	$m	1,629	1,618	1,588	1,574
Other Liabilities	$m	265	265	265	265
Total Liabilities	**$m**	**2,148**	**2,138**	**2,108**	**2,094**
Shareholders Funds	$m	725	896	1,056	1,207
Minority Interests	$m	0	0	0	0
Total Shareholders Equity	**$m**	**725**	**896**	**1,056**	**1,207**

Source: Company data, Macquarie Research, November 2011

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >3% in excess of benchmark return
Neutral – return within 3% of benchmark return
Underperform – return >3% below benchmark return

Benchmark return is determined by long term nominal GDP growth plus 12 month forward market dividend yield

Macquarie – Asia/Europe
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie First South - South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA
Outperform (Buy) – return >5% in excess of Russell 3000 index return
Neutral (Hold) – return within 5% of Russell 3000 index return
Underperform (Sell)– return >5% below Russell 3000 index return

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Australian/NZ/Canada stocks only

Recommendations – 12 months
Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 30 September 2011

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	57.35%	65.88%	56.94%	46.54%	74.68%	47.85%	(for US coverage by MCUSA, 11.63% of stocks covered are investment banking clients)
Neutral	31.99%	20.68%	31.94%	50.00%	23.42%	34.66%	(for US coverage by MCUSA, 9.30% of stocks covered are investment banking clients)
Underperform	10.66%	13.45%	11.11%	3.46%	1.90%	17.49%	(for US coverage by MCUSA, 0.47% of stocks covered are investment banking clients)

Company Specific Disclosures:
The Macquarie Group acted as financial adviser to Powertel Limited (PWT.ASX) in relation to the offer by Telecom Corporation of New Zealand Limited (TEL.NZX, TEL.ASX) to purchase ordinary shares of Powertel Limited (PWT.ASX) as announced on 31 January 2007.
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