

## Appendix 2: Professor Bowman's Views

---

188. At your request I am providing you my thoughts on the impact of a downward adjustment to Chorus' revenue as a possible outcome of the Government's regulatory review. The amount of any adjustment is unknown but the concern is whether a significant adjustment might put Chorus in some measure of financial distress. As mentioned in Chorus' 2013 Annual Report (p15), the impact could be to reduce EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortisation) by \$20 to \$100 million. This is before tax, so the after tax impact is \$14.4 to \$72 million. I realise that the downward adjustment may be higher than stated by Chorus. However, for convenience and to have a reference point, I will assume an adjustment downward of \$100 million as the worst case except where I state otherwise.
189. First some brief comments on the impact on its operating results and share price. Chorus' EBITDA for 2013 was \$654 million. So a downward adjustment of \$100 million would be a reduction in EBITDA and Net income of about 15%. On the face of it, this would seem to preclude any concern about financial distress, but there are other aspects of its operations that need consideration.
190. If the worst case eventuates, it may have a negative impact on the Chorus share price. However, it would be reasonable to expect that the share market has absorbed all available information and reflected it in the current share price. That would most likely be between the \$20-\$100 million mentioned by Chorus; perhaps at the upper limit of the range. The important point is that the impact will be a share price adjustment from the expectation to the actual outcome. It will not be an adjustment from assuming no change resulting from the Government's regulatory review to whatever is the outcome of the review.
191. Based on my experience and consistent with a wealth of empirical evidence on the behaviour of share prices, the share market is effective at considering available evidence and information and reflecting that in a share price. Unless the result of the review is a substantial surprise, which could be either up or down from the expectation, the share price adjustment in this case is likely to be small, probably no more than a few percentage points. The recent share price performance of Chorus certainly does not give any indication of concern about the financial stability of the company.

### Impact on Chorus' financial stability and viability

192. Chorus has only been in existence for a short time, so some standard measures of financial analysis are not available. The financial data and ratios that are most relevant to assessing financial health are below (\$ amounts are in millions) (Source: Chorus 2013 Annual Report).

Net Profit After Tax (NPAT) = \$171

Total long term debt (LTD) = \$1,820 (Debt and Finance lease payable)

Book value of equity (BVE) = \$624 (beginning of year = \$527)

Return on equity (ROE) = 32.4% (\$171/\$527)

Return on assets (ROA) = 8.4% ( $(\$344 \times (1 - .28)) / \$2934$ )

Market value of equity (MVE) =	\$1,144 (\$2.94 * 389mil)
Market debt to equity ratio =	1.59
Market debt level (D/(D+E) =	61%
MVE/BVE =	1.83
Dividends =	\$95
Dividend payout ratio =	56%
Interest coverage ratio =	3.2 (\$344/\$108)
Capital expenditures (Capex) =	\$681
Capex/NPAT =	3.98
Net cash flow =	-\$60

193. Interpreting this data requires doing so in the context of the type of company, its business, its current circumstances and any mitigating or exacerbating conditions. To put substantive meaning to most of this data requires comparing the amounts to some benchmark.
194. There is nothing in these numbers that stands out as representing a company that is not financially stable, other than perhaps the negative cash flow. I will comment on this further below.
195. To provide a benchmark, I used a dataset provided by Professor Aswath Damodaran at <http://pages.stern.nyu.edu/~adamodar/>
196. The data in this dataset is as of 31 December 2012. I selected all the companies in his dataset that are in the Telecommunication Services industry, are from NZ, Australia and Canada (reasonably similar regulatory regimes for the industry), had total assets of at least US\$250 million, and were not in financial distress.
197. The companies that met these criteria were:
- Telecom Corporation of New Zealand Limited (NZSE:TEL) New Zealand
  - Amcom Telecommunications Ltd. (ASX:AMM) Australia
  - iiNet Ltd. (ASX:IIN) Australia
  - M2 Telecommunications Group Limited (ASX:MTU) Australia
  - Telstra Corporation Limited (ASX:TLS) Australia
  - TPG Telecom Limited (ASX:TPM) Australia
  - BCE, Inc. (TSX:BCE) Canada
  - Bell Aliant Regional Communications Inc. (TSX:BA) Canada
  - Manitoba Telecom Services, Inc. (TSX:MBT) Canada
  - TELUS Corporation (TSX:T) Canada

- 198. Although these companies are classified as being in the Telecommunication Services industry, they are all involved in a range of activities much broader than Chorus. Importantly, the broader activities, including retail distribution and wireless, are higher risk than faced by Chorus. The possible exception to this statement is the regulatory risk currently faced by Chorus.
- 199. Because this set of Telecommunication Services companies is higher risk than Chorus, the reasonable expectation is that Chorus will have a lower rate of return, a higher debt level, and a lower MVE/BVE ratio. If Chorus was more mature, I would expect it to have a higher dividend payout ratio, lower Capex/NPAT, and perhaps a lower interest coverage ratio.
- 200. From the Damodaran dataset, I calculated the following averages for these companies.

Return on equity	23.3%	32.4%
Market debt to equity ratio	0.31	1.59
Market debt level (D/(D+E))	24%	61%
MVE/BVE	2.94	1.83
Dividend payout ratio	62%	56%
Interest coverage ratio	7.20	3.19
Capex/NPAT ranges from	5.79 to -0.16	3.98

- 201. The comparisons show that Chorus has a higher return on equity, a much higher debt level, and a lower MVE/BVE ratio.
- 202. When the focus is on the financial health of Chorus, the main point of interest here is the debt level. I collected a set of companies in the Power industry from the same countries. In general, these companies have risk profiles somewhere between Chorus and the Telecommunication Services companies. The average market debt to equity ratio of the 21 companies is 1.06, with a range of 0.3 to 2.7. This puts the average for these companies about where it would be expected given the risk profile of the businesses.
- 203. The fact that Chorus is in a very significant capital investment phase impacts upon the analysis. It also has a slightly lower dividend payout ratio, a relatively high Capex/NPAT, and a lower interest coverage ratio, but all of these are impacted by the high demand for capex. I do not believe much can be taken from these ratios.
- 204. The involvement of Crown Fibre Holdings (CFH) in a Public-Private-Partnership is very important. The following quote is taken from CFH's 2012 Annual Report (footnote 15).

*“The CFH Debt Securities are unsecured, carry no interest and, like the CFH Equity Securities, have no voting rights.” ... “The initial value of the senior portion will be the present value (using a discount rate of 8.5%) of the sum repayable on the CFH Debt Securities, and the initial subordinated portion will be the difference between the issue price of the CFH Debt Security and the value of the senior portion.”*

205. In my opinion, this mitigates concern over Chorus' level of debt. Effectively it is receiving a Government subsidy in the form of debt at below commercial rates and conditions.
206. My preliminary judgement is that Chorus will find it difficult to fully fund its capex from operations given the likely reduction in its EBITDA. However, it is also my judgement, that given its starting point, it was never realistic to assume it could expand so dramatically without requiring an input of additional equity. The outcome of the Government's regulatory review may change timing and magnitude of an equity raising, but from my preliminary analysis, an equity raising was always going to be required.
207. Further, I see no reason to think Chorus would encounter resistance in the market place to such an equity raising.
208. An obvious way to offset the cash flow impact of a reduction in its EBITDA would be for Chorus to reduce its annual dividend (\$95 million). The following from CFH's 2012 Annual Report (footnote 14) shows that if Chorus encounters financially difficult times, it will almost certainly have no choice but to reduce its dividend.
209. "The terms of the CFH Equity Securities do not prohibit payment of dividends on Chorus ordinary shares. However, provisions elsewhere in the agreements prohibit Chorus, without CFH's approval, paying any distributions on its ordinary shares during any period in which Chorus's credit rating is below investment grade."
210. As an aside, my analysis leads me to question the decision to pay such a large dividend, or even any dividend at all, given the capex demands and uncertainty that it has faced from its beginning.
211. In my judgement, there is no reason to conclude that a decision from the Government's regulatory review that reduces the EBITDA of Chorus by \$100 million should put the company in financial distress or destabilise the company. In my opinion, given the information discussed above and the strong market position of Chorus, it would be able to sustain even higher reductions. However, I do note that the more adverse the review conclusions, the more negatively it will impact upon the Chorus share price.

### **About Professor Bowman**

212. Jerry Bowman is an emeritus Professor of Finance at the University of Auckland, where he was the the Chair in Finance.<sup>43</sup> He was at the University of Oregon for 13 years before coming to Auckland in 1987. In addition to his academic positions he has been a manager with Arthur Young & Company (now Ernst & Young), and Chief Financial Officer with Cohu, Inc, a high tech company listed on the American Stock Exchange. While at Oregon, he took leave to spend two years as CEO of a start up company. He teaches at all levels from undergraduate to supervising doctoral students and has published extensively in international journals in finance, accounting and economics. In 2007, he became the first holder of the Bank of New Zealand Chair in Finance.

---

<sup>43</sup> <http://staff.business.auckland.ac.nz/Default.aspx?tabid=542&upi=rbow011>