Sky Network Television Limited

Independent Adviser's Report and Appraisal Report in relation to the Proposed Acquisition of Vodafone New Zealand Limited

Grant Samuel confirms that it:

- has no conflict of interest that could affect its ability to provide an unbiased report; and
- has no direct or indirect pecuniary or other interest in the proposed transaction considered in this report, including any success or contingency fee or remuneration, other than to receive the cash fee for providing this report.

Grant Samuel has satisfied the Takeovers Panel, on the basis of the material provided to the Panel, that it is independent under the Takeovers Code for the purposes of preparing this report.

Prepared by

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Auckland ▪ Sydney ▪ Melbourne

June 2016

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1 Terms of the Proposed Transaction

1.1 Transaction Terms

Sky Network Television Limited ("Sky TV") was established in 1987 to deliver a pay television service to the New Zealand market. It has continued to develop and grow since that time and is now well established as the market leading pay television company in New Zealand, with approximately 830,000 subscribers. The company is listed on the New Zealand Stock Exchange ("NZX") and the Australian Securities Exchange ("ASX") and has a market capitalisation of approximately $1.6 billion[1].

Vodafone New Zealand Limited ("Vodafone NZ") entered the New Zealand market in 1998 through the acquisition of Bellsouth New Zealand Limited. Today, Vodafone NZ is a full service telecommunications company offering a comprehensive suite of telecommunications services, providing both mobile (voice, messaging and data) and fixed (broadband and home phone) products to consumer and business customers. The company had approximately 2.4 million mobile customers and approximately 500,000 fixed customers as of March 2016. Vodafone NZ offers television services primarily by marketing Sky TV's packages through an established and successful partnership agreement. Vodafone NZ is a private company owned by Vodafone Europe B.V., a member of the Vodafone group of companies ("Vodafone Group")[2], of which Vodafone Group Plc is the ultimate parent. Vodafone Group Plc, one of the world's largest telecommunications companies, is based in the United Kingdom and is listed on the London Stock Exchange with a market capitalisation of approximately £58 billion.

On 9 June 2016, Sky TV announced that it had entered into a binding sale and purchase agreement ("SPA") with Vodafone Group to acquire all the shares in Vodafone NZ for a headline consideration of $3.44 billion (the "Proposed Transaction").

The merger of Sky TV and Vodafone NZ will create a fully integrated telecommunications and media group ("the Combined Group"[3]) with market leading positions in mobile and pay television and strong positions in other sectors. The Combined Group will continue to aggregate and offer content, including sports rights, major events and studio content, and will deliver that content to consumers more effectively via Sky TV's satellite platform and Vodafone NZ's mobile, fixed line and digital delivery platforms. The Combined Group will have the largest set of pay television and telecommunications customers in New Zealand, with the opportunity to deliver a suite of products and services to those customers that will be differentiated from those provided by its competitors.

The total purchase price of $3.44 billion ("the Consideration") is to be satisfied partly by a cash payment and partly through an issue of shares in Sky TV to Vodafone Group:

- the cash component of the Consideration is $1.25 billion. It will be funded through the incurrence of additional debt, through new debt facilities of an amount not exceeding $1.8 billion (the new debt will also be used to refinance Sky TV's existing bank debt at completion); and
- the balance of the Consideration of $2.19 billion will be satisfied through the issue of 405.0[4] million new Sky TV shares at a nominal price of $5.40 ("the Share Issue"). On completion of the Proposed Transaction, Vodafone Group will own 51% of the Combined Group.

[1] All references to $ in this report represent New Zealand dollars (unless otherwise specified).

[2] For the purposes of this report, the term "Vodafone Group" includes all subsidiaries of Vodafone Group as the context requires.

[3] References in this letter to the Combined Group are references to Sky TV after completion of the Proposed Transaction.

[4] Sky TV will issue sufficient shares such that following the Share Issue Vodafone Group will own 51% of the Combined Group. Accordingly, the number of shares to be issued to Vodafone Group will vary from 405.0 million to the extent that there is any change in the number of Sky TV shares on issue prior to completion of the Proposed Transaction. For the purposes of this report, Grant Samuel has assumed that 405.0 million Sky TV shares will be issued to Vodafone Group.

If the Proposed Transaction is completed, the Combined Group will remain a listed company on the NZX and ASX. Key features of the Proposed Transaction include:

- Vodafone Group has agreed to maintain its 51% shareholding in Sky TV for a certain period, subject to limited exceptions. Accordingly, Vodafone Group will unconditionally and irrevocably agree that until the date on which the results of the Combined Group for the year ending 30 June 2017 are announced, it will not sell, transfer, or assign ownership or control of the shares issued as part consideration for the Proposed Transaction, except in limited prescribed circumstances (such as by way of acceptance of a takeover offer);
- Vodafone Group has agreed that it will not increase its shareholding above 51% other than through a full or partial offer under the New Zealand Takeovers Code, through a scheme, or through an acquisition otherwise approved by shareholders. The agreement also provides Vodafone Group with anti-dilution protection for so long as it holds not less than 35% of the shares in the Combined Group. For as long as Vodafone Group holds not less than 20% of the shares in the Combined Group, the Combined Group will also provide assistance to Vodafone Group if it wishes to sell any shares in the Combined Group (after expiration of the initial 12 months escrow period);
- Vodafone Group has agreed to provide a $1.8 billion loan facility to Sky TV ("the Loan Facility Agreement"). The facilities include a term loan facility, split into three and five year tranches, of up to $1.25 billion and a revolving credit facility, with a three year term, of up to $550 million. The facilities have different margins depending on the term chosen. The facilities are unsecured and will have the benefit of the covenants under Sky TV's existing Negative Pledge Deed. Sky TV will have the right to seek facilities from third party lenders prior to completion (and plans to do so) and can replace the Loan Facility Agreement if the terms are more favourable (subject to Vodafone Group's right to match these terms);
- Sky TV and Vodafone Group have agreed to a range of exclusivity provisions that apply from announcement of the Proposed Transaction until 28 February 2017. A termination fee of up to $21.5 million is payable to Vodafone Group in certain circumstances, including where a competing proposal succeeds;
- the SPA includes standard warranties and tax indemnities given by both Vodafone Group (as the vendor of Vodafone NZ) and Sky TV (in relation to the issue of shares);
- the SPA includes various purchase price adjustment mechanisms that are based on targeted net debt, net working capital levels and capital expenditures at completion. Vodafone NZ is to be acquired free of debt and cash on completion, while Sky TV's net debt at completion is to be no more than $330 million. To the extent it exceeds this level, a payment (equal to 51/49 times the excess) will be made to Vodafone Group;
- because Vodafone NZ will be acquired free of debt and cash, Vodafone Group will effectively keep all cash generated until completion. To provide a broadly consistent outcome for its shareholders, Sky TV will be entitled to pay a final dividend for the year ending 30 June 2016 (of up to 15 cents per share) and a special dividend of up to 2.5 cents per month (equivalent to 30 cents per annum) for each whole month from 1 October 2016 until the month prior to completion. The shares issued to Vodafone Group will not be entitled to these dividends. All shareholders will share in dividends following completion. During the six month period ending 31 March 2017, the Combined Group will be entitled to pay a further dividend (subject to the sum of any special dividends paid and that further dividend not exceeding $0.15 per share);
- the management team will be restructured. Mr Russell Stanners, currently the Chief Executive Officer ("CEO") of Vodafone NZ, will become CEO of the Combined Group while Mr John Fellet, the CEO of Sky TV, will become CEO of Media and Content. Both will be Executive Directors of the Combined Group. Other senior management roles will be filled by a mixture of Sky TV and Vodafone NZ executives;

- the Board of the Combined Group will initially have nine members, comprising four of the five existing non-executive directors of Sky TV, three appointees of Vodafone Group and the two Executive Directors. Mr Peter Macourt will remain Chairman; and
- in conjunction with the Proposed Transaction, Sky TV has negotiated and agreed the terms of the number of service agreements between the Combined Group and Vodafone Group, through which the Combined Group will have access to a range of Vodafone Group support services following completion of the Proposed Transaction. These services arrangements comprise four main agreements:
  - ***Procurement Accession and Amendment Agreement.*** This agreement allows the Combined Group to access Vodafone Group's global procurement functions and receive goods and services procured by Vodafone Group from third party suppliers;
  - ***Roaming Amendment Agreement.*** This agreement enables Vodafone NZ to continue to provide international roaming services to its customers travelling overseas, and provide roaming services in New Zealand to customers of other members of the Vodafone Group;
  - ***Branding Agreement and Branding Sub-Licence.*** The Branding Agreement grants Vodafone NZ a licence to use the *Vodafone* brand name and associated trademarks. The Sub-Licence sets out the terms on which the Combined Group (including the business of Sky TV) is licensed to use the *Vodafone* brand name and associated trademarks on a royalty free basis and is on terms that broadly match those set out in the Branding Agreement; and
  - ***Co-operation Agreement.*** This agreement sets the terms on which Vodafone NZ (and the Combined Group) will have access to certain products, services and expertise from other members of Vodafone Group.

  The Branding Agreement and Branding Sub-Licence have an initial term of ten years while the other agreements have initial terms of five years. The agreements may be terminated if there is a change of control[5] of the Combined Group, if Vodafone Group ceases to hold a minimum level of shares[6] or in certain other circumstances (e.g. in the event of a material breach of the agreement).

  The Combined Group will pay fees to Vodafone Group for these services and rights. Some of the fees will vary with levels of activity although the brand royalty is fixed at $31.4 million per annum for the first ten years. Based on current activity levels, the total fees under these agreements are, in aggregate, expected to be approximately $88 million per annum. The fees are denominated in New Zealand dollars.

  There are numerous other arrangements currently in place between Vodafone NZ and Vodafone Group covering day to day operational matters (e.g. international voice and SMS traffic management). These will remain in place and are unaffected by the Proposed Transaction.

[5] Defined as another party with at least 20% exceeding Vodafone Group's shareholding in the Combined Group.

[6] 15% for the Branding Agreement and 35% for the others.

The Proposed Transaction is subject to the satisfaction or waiver of certain conditions including:

- Sky TV shareholders' approval of the Proposed Transaction, the incurrence of the new debt and the Share Issue;
- Sky TV and Vodafone Group each receiving Overseas Investment Office ("OIO") approval required for the Proposed Transaction and Share Issue;
- Sky TV and Vodafone Group each receiving New Zealand Commerce Commission ("Commerce Commission") clearances required for the Proposed Transaction and the Share Issue; and
- certain conditions precedent to drawing down facilities under the Loan Facility Agreement being satisfied or waived.

If the conditions are not satisfied or waived or if a material adverse change or prescribed breach event occurs in relation to Vodafone Group or Sky TV prior to completion, the Proposed Transaction may not proceed on the terms outlined above.

1.2 Shareholder Approval

The Proposed Transaction requires the shareholder approval of Sky TV shareholders. There will be three resolutions to be voted on and all three resolutions must be passed in order for any of them to be effective:

- ***Resolution 1 - Approval of the Proposed Transaction (Special Resolution)***

  That the shareholders ratify, confirm and approve, including for the purposes of section 129(1) of the Companies Act 1993, NZX Listing Rule 9.1.1, and ASX Listing Rule 11.1.2, and for all other purposes, the acquisition by Sky TV of all the shares of Vodafone NZ.

- ***Resolution 2 - Approval of the Incurrence of New Debt (Special Resolution)***

  That the shareholders ratify, confirm and approve, including for the purposes of section 129(1) of the Companies Act 1993, NZX Listing Rule 9.1.1, and for all other purposes, the incurrence by Sky TV of debt in an amount not exceeding $1.8 billion, to be provided by Vodafone Group (on the terms set out in the Loan Facility Agreement) and/or one or more third party banks or financial institutions, (on arm's length commercial terms), for the purposes of funding the cash portion of the purchase price payable in connection with the acquisition described in Resolution 1, other costs arising in connection with the acquisition, repayment of Sky TV's bank debt existing at completion and the Combined Group's working capital needs.

- ***Resolution 3 - Approval of the Share Issue (Ordinary Resolution)***

  That the shareholders ratify, confirm and approve, including for the purposes of Rule 7(d) of the Takeovers Code, NZX Listing Rule 7.3.1(a), ASX Listing Rule 7.1 and all relevant provisions of Sky TV's constitution, and for all other purposes, the issue to Vodafone Group on completion of the acquisition described in Resolution 1, to partially satisfy the Consideration, of that number of new fully paid, ordinary shares in Sky TV that is equal to 51% of the total number of Sky TV shares that will be on issue immediately following completion of the acquisition, taking into account the issue of such new shares.

The Shareholder Meeting to consider the Proposed Transaction is likely to be held close to the end of the first week of July 2016.

2 Scope of the Report

2.1 Purpose of the Report

The Share Issue component of the Proposed Transaction is subject to, amongst other things, the approval of Sky TV shareholders under Rule 7(d) of the Takeovers Code and Listing Rule 7.3.1(a) of the NZX Listing Rules.

The notice for the Sky TV shareholder meeting where such approvals will be sought must be accompanied by an Independent Adviser's Report for the purposes of Rule 16(h) of the Takeovers Code and an Appraisal Report for the purposes of Listing Rule 6.2.2(b) of the NZX Listing Rules.

Requirements of the Takeovers Code

The Takeovers Code came into effect on 1 July 2001. The Takeovers Code seeks to ensure that all shareholders are treated equally and on the basis of proper disclosure are able to make informed decisions on shareholding transactions that may impact on their own holdings.

Sky TV is a “code company” for the purposes of the Takeovers Code. Rule 6 of the Takeovers Code, the fundamental rule, states that a person (along with its associates) who holds or controls:

- no voting rights, or less than 20% of the voting rights, in a code company may not become the holder or controller of an increased percentage of the voting rights in the code company unless, after that event, that person and that person's associates hold or control in total not more than 20% of the voting rights in the code company;
- 20% or more of the voting rights in a code company may not become the holder or controller of an increased percentage of the voting rights in the code company.

Rule 7 of the Takeovers Code sets out the exceptions to the fundamental rule. Rule 7 states that a person may become the holder or controller of an increased percentage of the voting rights in a code company under the following circumstances:

- by an acquisition under a full offer;
- by an acquisition under a partial offer;
- by an acquisition by the person of voting securities in the code company or in any other body corporate from one or more other persons if the acquisition has been approved by an ordinary resolution of the code company in accordance with the code;
- **by an allotment to the person of voting securities in the code company or in any other body corporate if the allotment has been approved by an ordinary resolution of the code company in accordance with the code**;
- if: (i) the person holds or controls more than 50%, but less than 90%, of the voting rights in the code company; and (ii) the resulting percentage held by the person does not exceed by more than 5 the lowest percentage of the total voting rights in the code company held or controlled by the person in the 12 month period ending on, and inclusive of, the date of the increase; or
- if the person already holds or controls 90% or more of the voting rights in the code company.

The allotment of shares to Vodafone Group would result in Vodafone Group owning more than 20% of the issued shares in Sky TV and accordingly requires an ordinary resolution of Sky TV shareholders to proceed.

Rule 16(h) of the Takeovers Code requires that the notice of meeting provided to Sky TV shareholders to consider the Share Issue resolution captured by Rule 7(d) must be accompanied by an Independent Adviser's Report (that complies with Rule 18) on the merits of the proposed allotment, having regard to the interests of the persons who may vote to approve it.

Requirements of the NZX Listing Rules

NZX Listing Rule 7.3.1(a) prohibits Sky TV from issuing shares unless the precise terms and conditions of the specific proposal to issue those shares have been approved by an ordinary resolution of Sky TV shareholders.

Listing Rule 6.2.2(b) of the NZX Listing Rules requires that the Notice of Meeting provided to shareholders to consider the Share Issue resolution must be accompanied by an Appraisal Report if the issue will result in more than 50% of the shares to be issued being acquired by directors or "Associated Persons" (as defined in the NZX Listing Rules) of directors of Sky TV. Vodafone Group is deemed an Associated Person of the directors of Sky TV by virtue of the Proposed Transaction, and Vodafone Group will be acquiring all the shares issued under the Share Issue. An Appraisal Report is therefore required, which contains such information as is necessary for Sky TV shareholders to decide whether the issue price and terms are fair.

Pursuant to Listing Rule 1.7.2 the Appraisal Report is required to:

- be addressed to the Directors of Sky TV;
- be expressed to be for the benefit of the shareholders of Sky TV not associated with Vodafone Group;
- state whether or not in the opinion of Grant Samuel the consideration and the terms and conditions of the Share Issue to Vodafone Group are “fair” to Sky TV’s shareholders (other than those associated with Vodafone Group);
- state whether or not in Grant Samuel’s opinion the information to be provided by Sky TV to its shareholders is sufficient to enable holders of those shares to understand all the relevant factors, and make an informed decision as to the “fairness” of the Share Issue and the grounds for that opinion;
- state whether Grant Samuel has obtained all information which it believes desirable for the purposes of preparing the report, including all relevant information which is or should have been known by any director of Sky TV and made available to the directors;
- state any material assumptions on which Grant Samuel’s opinion is based; and
- state any term of reference which may have materially restricted the scope of the report.

Grant Samuel Engagement

The Directors of Sky TV have requested that Grant Samuel & Associates Limited (“Grant Samuel”) prepare an Independent Adviser’s Report evaluating, in its opinion, the merits of the Proposed Transaction pursuant to Rule 16 of the Takeovers Code which meets the requirements of Rule 18. The Directors of Sky TV have also requested Grant Samuel to prepare an Appraisal Report pursuant to NZX Listing Rule 6.2.2(b) which meets the requirements of NZX Listing Rule 1.7.2, as set out above. For the purposes of the notice of meeting to consider the Proposed Transaction, Grant Samuel has incorporated the specific reporting requirements of the Takeovers Code and NZX Listing Rules into a single report. The basis of assessment is discussed in more detail in Section 2.2 below. The report satisfying the requirements of both Rule 16 of the Takeovers Code and NZX Listing Rule 6.2.2(b) is to be sent to shareholders of Sky TV together with the Notice of Meeting and Explanatory Memorandum.

Grant Samuel has been approved by the Takeovers Panel to prepare the Independent Adviser’s Report and has also been approved by the Market Surveillance Panel of the NZX to prepare the Appraisal Report. This combined report has been prepared by Grant Samuel to assist the Directors of Sky TV in advising shareholders in relation to the Proposed Transaction. This report should not be used for any other purpose. In particular, it is not intended that this report should be used or relied on for any purpose other than an expression of Grant Samuel’s opinion as to the merits of the Proposed Transaction, and whether the proposed Share Issue is being undertaken at a fair price and terms.

2.2 Basis of the Evaluation

NZX Listing Rule 1.7.2 requires that the Appraisal Report evaluate whether the issue price and other terms of the Share Issue are fair. In the context of the Proposed Transaction, the price at which new shares are to be issued to Vodafone Group is considered to be "fair" if the issue price fully reflects the value of the company's underlying business and assets. The terms and conditions of the Share Issue are considered to be fair if they are not onerous and do not adversely affect Sky TV's existing shareholders.

The term "merits" as used in Rule 18 of the Takeovers Code has no legal definition in New Zealand, either in the Takeovers Code itself or in any statute dealing with securities or commercial law. Grant Samuel has considered that an assessment of the merits of the Proposed Transaction is a broader test than "fair" and should incorporate an assessment of the benefits, disadvantages and risks of the Proposed Transaction such as:

- the price paid for Vodafone NZ;
- an assessment of the Issue Price of the shares to Vodafone Group;
- the rationale for the Proposed Transaction;
- the impact of the Proposed Transaction on the shareholding structure of Sky TV;
- the prospects for shareholders if the Proposed Transaction does not proceed;
- advantages, disadvantages, risks and implications of the Proposed Transaction;
- an assessment of alternatives available to Sky TV and its shareholders; and
- the risks associated with an investment in Sky TV before and after the Proposed Transaction.

This report is general financial product advice only and has been prepared without taking into account the objectives, financial situation or needs of individual Sky TV shareholders. Before acting in relation to their investment, shareholders should consider the appropriateness of the advice having regard to their own objectives, financial situation or needs. Shareholders should read the Explanatory Memorandum issued by Sky TV in relation to the Proposed Transaction.

Approval or rejection of the Proposed Transaction is a matter of individual shareholders based on their expectations as to value and future market conditions and their particular circumstances including risk profile, liquidity preference, investment strategy, portfolio structure and tax position. Shareholders who are in doubt as to the action they should take in relation to the Proposed Transaction should consult their own professional adviser.

2.3 Sources of Information

The following information was used and relied upon without independent verification in preparing this report:

Publicly Available Information

- the Explanatory Memorandum and supporting documents (including earlier drafts);
- industry data (e.g. Commerce Commission reports, broker reports on the telecommunications and pay television industries);
- annual reports for Vodafone NZ for the years ended 31 March 2011 to 31 March 2015 ("FY11 to FY15"[7]);

[7] FYXX = Financial Year ending 30 June 20XX for Sky TV and the Combined Group and 31 March 20XX for Vodafone NZ (except in relation to forecast financial information for Vodafone NZ which has been restated to a 30 June 20XX year end).

- for Sky TV, other listed companies engaged in the telecommunications and pay television industries and in relation to acquisitions of businesses in these industries:
  - company produced information including historical financial reports, market announcements, websites, presentations and filings with regulators; and
  - third party information including broker research, sharemarket data and media coverage.

Non Public Information provided by Sky TV

- the FY16 budget;
- company five year plan outputs (under a variety of assumptions);
- due diligence accounting and commercial advisor reports on Sky TV, Vodafone NZ and synergies from the Proposed Transaction; and
- transaction related presentations (including presentations from financial advisers).

Non Public Information provided by Vodafone NZ

- Vodafone NZ's Country Finance Report for FY16;
- Vodafone NZ's Long Run Plan forecasts;
- historical management reporting for FY14 and FY15;
- sensitivities run by Vodafone NZ on the Long Run Plan;
- due diligence accounting reports on Vodafone NZ;
- confidential industry data; and
- management presentations.

Grant Samuel has also had discussions with and obtained information from senior management of Sky TV. In addition, Vodafone NZ presented its forecasts and projections to Grant Samuel.

2.4 Limitations and Reliance on Information

Grant Samuel believes that its opinions must be considered in their entirety and that selecting portions of the analysis or factors considered by it, without considering all factors and analyses together, could create a misleading view of the process employed and the conclusions reached. Any attempt to do so could lead to undue emphasis on a particular factor or analysis. The preparation of opinions such as those set out in this report is a complex process and is not necessarily susceptible to partial analysis or summary.

Grant Samuel's opinions are based on economic, sharemarket, business trading, financial and other conditions and expectations prevailing at the date of this report. These conditions can change significantly over relatively short periods of time. If they did change materially, subsequent to the date of this report, the opinion could be different in these changed circumstances.

This report is also based upon financial and other information provided by Sky TV, Vodafone NZ and their respective advisers. Grant Samuel has considered and relied upon this information. Sky TV and Vodafone NZ have represented in writing to Grant Samuel that to their knowledge the information provided by them was then, and is now, complete and not incorrect or misleading in any material respect. Grant Samuel has no reason to believe that any material facts have been withheld.

The information provided to Grant Samuel has been evaluated through analysis, inquiry and review to the extent that it considers necessary or appropriate for the purposes of assessing the Proposed Transaction. However, Grant Samuel does not warrant that its inquiries have identified or verified all of the matters that an audit, extensive examination or "due diligence" investigation might disclose. While Grant Samuel has made what it considers to be appropriate inquiries for the

purposes of forming its opinions, "due diligence" of the type undertaken by companies and their advisers in relation to, for example, prospectuses or profit forecasts, is beyond the scope of an independent expert.

Accordingly, this report and the opinions expressed in it should be considered more in the nature of an overall review of the anticipated commercial and financial implications rather than a comprehensive audit or investigation of detailed matters.

An important part of the information used in forming opinions of the kind expressed in this report is comprised of the opinions and judgement of management. This type of information was also evaluated through analysis, inquiry and review to the extent practical. However, such information is often not capable of external verification or validation.

Preparation of this report does not imply that Grant Samuel has audited in any way the management accounts or other records of Sky TV or Vodafone NZ. It is understood that the accounting information that was provided was prepared in accordance with generally accepted accounting principles and in a manner consistent with the method of accounting in previous years (except where noted).

The information provided to Grant Samuel by Sky TV and Vodafone NZ included:

- the budget for Sky TV for FY16 prepared by management and adopted by the directors of Sky TV;
- pro forma forecasts of financial performance, cash flows and financial position for FY16 and FY17 for Sky TV ("the Sky Forecasts"), Vodafone NZ ("the Vodafone NZ Forecasts") and the Combined Group ("the Combined Group Forecasts") as set out in the Explanatory Memorandum (collectively "the Forecasts");
- outputs from a cash flow model for Sky TV's business operations for the five year period from 1 June 2015 to 30 June 2020. The model was prepared by Sky TV management; and
- outputs from a cash flow model for Vodafone NZ's business operations for the five year period from 1 April 2016 to 31 March 2021. The model was prepared by Vodafone NZ management.

Vodafone NZ has prepared and is responsible for the Vodafone NZ Forecasts and Sky TV has prepared and is responsible for the Sky TV Forecasts and the Combined Group Forecasts. Each of Sky TV and Vodafone NZ is responsible for the cash flow model outputs for its own business. (For the purpose of this report, the Vodafone NZ Forecasts, the Sky TV Forecasts, the Combined Group Forecasts and the model outputs for the SkyTV and Vodafone NZ businesses are collectively "the forward looking information"). Grant Samuel has considered and, to the extent deemed appropriate, relied on the forward looking information for the purposes of its analysis (including as the base for its discounted cash flow ("DCF") valuation and its earnings multiple analysis). Grant Samuel has not investigated this financial information in terms of the reasonableness of the underlying assumptions, accuracy of compilation or application of assumptions. However, the Forecasts have been subject to comprehensive review by Ernst & Young Transaction Advisory Services Limited ("EY"), accounting advisers to Sky TV. The Explanatory Memorandum includes an opinion from EY which in effect states that, based on its limited assurance engagement and subject to the qualifications and limitations set out therein, nothing came to EY's attention that causes it to believe that the Forecasts are unreasonable.
The assumptions underlying the cash flow models beyond FY17 were not reviewed by EY but:

- years subsequent to FY17 were extrapolations of assumptions used in these forecasts and did not involve material step changes;
- the businesses are mature with long track records of performance and have sophisticated management and financial reporting processes;
- both of the models are detailed "ground up" models developed for management planning purposes and have been subject to extensive internal review;
- Sky TV commissioned accounting and commercial advisers to undertake due diligence on Vodafone NZ. These investigations included assessments of the outlook for the business of

Vodafone NZ over the next few years. The reports were made available to Grant Samuel on a non-reliance basis; and

- as part of its analysis, Grant Samuel has reviewed the sensitivity of net present values ("NPVs") to changes in key variables and considered alternative scenarios.

Grant Samuel has no reason to believe that the forward looking information reflects any material bias, either positive or negative. However, the achievability of the budgets/forecasts is not warranted or guaranteed by Grant Samuel. Future profits and cash flows are inherently uncertain. They are predictions by management of future events that cannot be assured and are necessarily based on assumptions, many of which are beyond the control of the company or its management. Actual results may be significantly more or less favourable.

The sensitivity and scenario analysis conducted by Grant Samuel isolates a limited number of assumptions and shows the impact of variations to those assumptions. No opinion is expressed as to the probability or otherwise of those variations occurring. Actual variations may be greater or less than those modelled. In addition to not representing best and worst outcomes, the analysis does not, and does not purport to, show the impact of all possible variations to the business model. The actual performance of the business may be negatively or positively impacted by a range of factors including, but not limited to:

- changes to the assumptions other than those considered in the sensitivity or scenario analysis;
- greater or lesser variations to the assumptions considered in the sensitivity or scenario analysis than those modelled; and
- combinations of different variations to a number of different assumptions that may produce outcomes different to the combinations modelled.

In forming its opinions, Grant Samuel has also assumed that:

- matters such as title, compliance with laws and regulations and contracts in place are in good standing and will remain so and that there are no material legal proceedings, other than as publicly disclosed;
- the assessments by Sky TV and its advisers with regard to legal, regulatory, tax and accounting matters relating to the Proposed Transaction are accurate and complete;
- the information set out in the Notice of Meeting and Explanatory Memorandum sent by Sky TV to its shareholders is complete, accurate and fairly presented in all material respects;
- the publicly available information relied on by Grant Samuel in its analysis was accurate and not misleading;
- the Proposed Transaction will be implemented in accordance with its terms; and
- the legal mechanisms to implement the Proposed Transaction are correct and will be effective.

To the extent that there are legal issues relating to assets, properties, or business interests or issues relating to compliance with applicable laws, regulations, and policies, Grant Samuel assumes no responsibility and offers no legal opinion or interpretation on any issue.

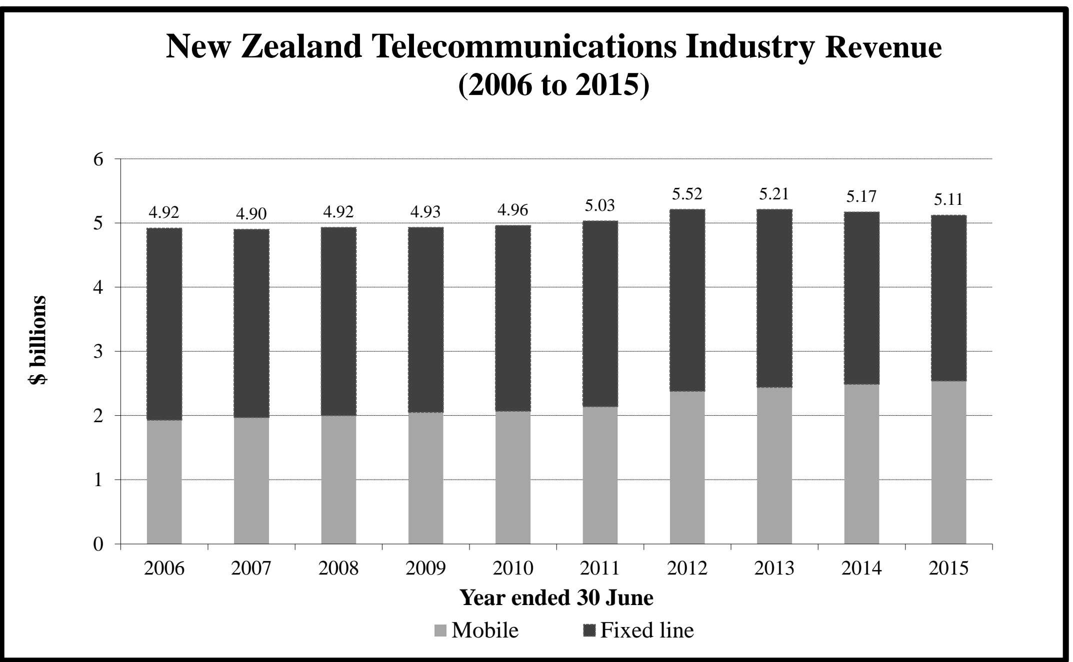
3 Overview of the Telecommunications Industry in New Zealand

3.1 Overview

The New Zealand telecommunications industry has evolved significantly since the mid 1980s when New Zealand Post owned and ran the telecommunications system in New Zealand in a state protected monopoly. Telecom Corporation of New Zealand Limited ("Telecom NZ") was formed as one of three new state-owned enterprises following the restructure of New Zealand Post in 1987 and was privatised in 1990. Telecom NZ was listed on the NZX, ASX and New York Stock Exchange in 1991.

The Telecommunications Act 1987 was put in place at the time of the creation of Telecom NZ and set out restrictions on the number, activities and foreign ownership of participants in the telecommunications market. Since 1987, the telecommunications market has been progressively deregulated and a number of new participants have entered the market. New entrants initially competed for traditional international and national toll revenues and more recently for internet-related and mobile services. The sector has been dramatically transformed in terms of the range of services offered and the technologies used to deliver these services, with consequent effects on the overall market structure. Rapid change continues today as users consume increasing amounts of video, data and other content through smartphones and tablets, and internet connectivity of devices such as home appliances and vehicles becomes increasingly widespread.

While substantially more network bandwidth is required to meet the ever increasing demand for data, revenue growth for the telecommunication sector is in overall decline, presenting challenges for providers. Revenue from telecommunications in New Zealand grew very slowly between 2006 and 2011. Following a year of strong revenue growth in 2012 reflecting increased growth in mobile and data, revenue has fallen marginally each year since. The decline in total revenue has been led by falling revenue from fixed line voice and business data (primarily the result of aggressive price based competition) partially offset by increasing revenue in mobile, broadband and internet services, as summarised in the chart below:



Source: Commerce Commission, *Annual Telecommunications Monitoring Report 2015*

In 2009 the New Zealand Government announced plans for the Ultra Fast Broadband ("UFB") fibre network and the Rural Broadband Initiative ("RBI"). The initiatives are designed to deliver a fibre to the home network in most residential centres in New Zealand and high speed broadband

using other technologies to rural locations. These initiatives led directly to the restructuring of Telecom NZ, which was separated in 2011 into two separate listed companies:

- **Chorus Limited ("Chorus")**, a wholesale network provider that owns copper and fibre network assets, access electronics, telephone exchange buildings and transport radio towers; and
- **Spark New Zealand Limited ("Spark")**, a telecommunications retailer that owns mobile network assets, the public switched telephone network ("PSTN"),[8] telecommunications network equipment, international submarine cables and spectrum associated with the supply of mobile services.

More detail on the UFB and the RBI is set out in Section 3.8.

3.2 Market Segments and Products

The telecommunications market is typically segmented by customer type, as the products demanded and customer behaviour differ markedly between households, small businesses and large corporates. There is some commonality but also important differences in the infrastructure used to service these customer segments.

Telecommunications services are a key delivery channel for and, are commonly bundled with, media and entertainment products in the consumer segment and they are closely linked with information technology ("IT") services in the corporate and enterprise sectors. As the telecommunications sector has evolved, these linkages have become deeper and more important and the distinction between telecommunications services and other sectors has become blurred in some areas.

Generally, the telecommunications sector can be viewed as providing the infrastructure used by consumers and businesses to access data/content or enable upstream IT services, and can be summarised as follows:

Telecommunications and Adjacent Sectors – Market Segments and Products

Segment	Key Products	
	Telecommunications Sector	**Adjacent Sectors**
Consumer (Household)	▪ Broadband internet ▪ Home phone ▪ Mobile devices	▪ Pay television ▪ Video and music streaming ▪ Remote storage and back-up
Small to Medium Business	▪ Broadband internet ▪ Phone services (PABX[9] and VoIP[10]) ▪ Mobile devices ▪ High speed data connections (Ethernet and IP-VPN[11])	▪ Web hosting ▪ Ecommerce services ▪ IT services (e.g. storage, disaster recovery, cloud services[12])
Corporate, Enterprise and Government	▪ High speed data connections (dark fibre[13], Ethernet and IP-VPN) ▪ Internet connection ▪ Phone services (PABX and VoIP) ▪ Mobile devices ▪ Data centre space	▪ Outsourced IT and hosted services ▪ IT consulting and integration services ▪ Ecommerce services ▪ Content delivery services ▪ Internet security services ▪ Mobile device management & security

8 PSTN (public switched telephone network) is the traditional telephone system.

9 PABX is a traditional product that provides a phone system with multiple internal and/or external lines for a business.

10 VoIP (voice over internet protocol) is a technology for delivering single or multi-line phone services to businesses and households more effectively over modern high speed data links.

11 Ethernet and IP-VPN are types of private high speed data links commonly provided by carriers to medium and large businesses.

12 A cloud service is an application, data processing or storage service operated remotely by a third party, allowing the customer to use a complex application with minimal hardware onsite, using a high speed data connection to the cloud service provider (e.g. accounting systems, inventory and stock management systems, customer relationship management systems).

13 Dark fibre is a service provided by carriers to large businesses for high speed, private data links where the business is able to connect its own equipment directly to the carrier's optical fibre cable.

Telecommunications and Adjacent Sectors – Market Segments and Products		
Segment	**Key Products**	
	Telecommunications Sector	**Adjacent Sectors**
Wholesale	▪ Local access infrastructure (copper lines and DSL[14]) ▪ High speed data connections (dark fibre, Ethernet) ▪ Internet connection ▪ Services to MVNOs[15]	

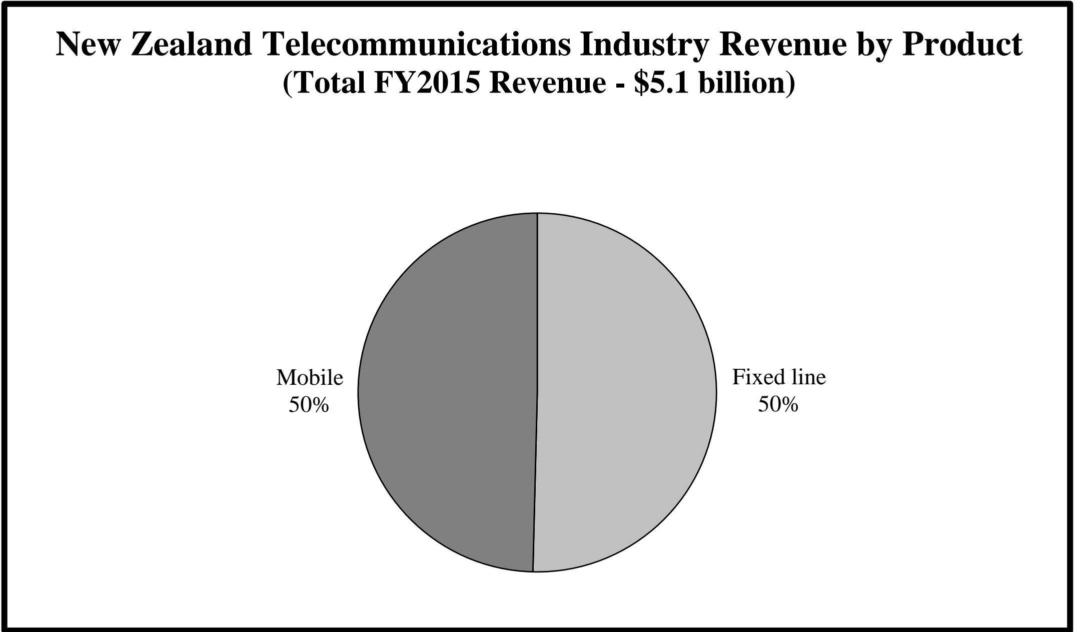
Source: Grant Samuel

3.3 Market Structure

Aggregate revenue for the New Zealand retail market is estimated at approximately $5 billion per annum. The major participants are:

- the two large integrated carriers - Spark and Vodafone NZ;
- Chorus and three other local fibre companies ("LFCs") providing wholesale only local access; and
- a number of mid-size carriers, including Two Degrees Mobile Limited ("2degrees") (mobile and fixed line broadband), TrustPower (consumer and business segments), Vocus Communications Limited ("Vocus") (intercity fibre and data centres and a consumer and small business reseller), Compass (consumer and business segments), Teamtalk (consumer and business segments) and Kordia (business segment). Of these businesses, 2degrees is the largest, with approximately 1.3 million mobile customers and estimated annual revenue of approximately $570 million in the year to 31 December 2015[16].

The market is split approximately 50/50 between mobile and fixed line services:



Source: Commerce Commission, *Annual Telecommunications Monitoring Report 2015*

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[14] DSL (digital subscriber line) refers to a family of technologies used to provide a broadband connection over a traditional copper phone line.

[15] MVNO (mobile virtual network operator) refers to a carrier that buys wholesale access to a mobile network.

[16] Source: 2degrees Annual Report.

Following a proliferation of telecommunications service providers in the 1990s and early 2000s, mergers and acquisitions in the last ten years have significantly reduced the number of market participants. This consolidation is evident in the number of small to mid-tier carriers in New Zealand that have been acquired by competitors, including:

- telecommunications companies TelstraClear Limited ("TelstraClear"), Snap, Orcon, WorldxChange Communications Limited ("WorldxChange"), Woosh and Farmside; and
- fibre network and data centre companies FX Networks, Revera Limited ("Revera"), Computer Concepts ("CCL Group"), ICONZ and Maxnet.

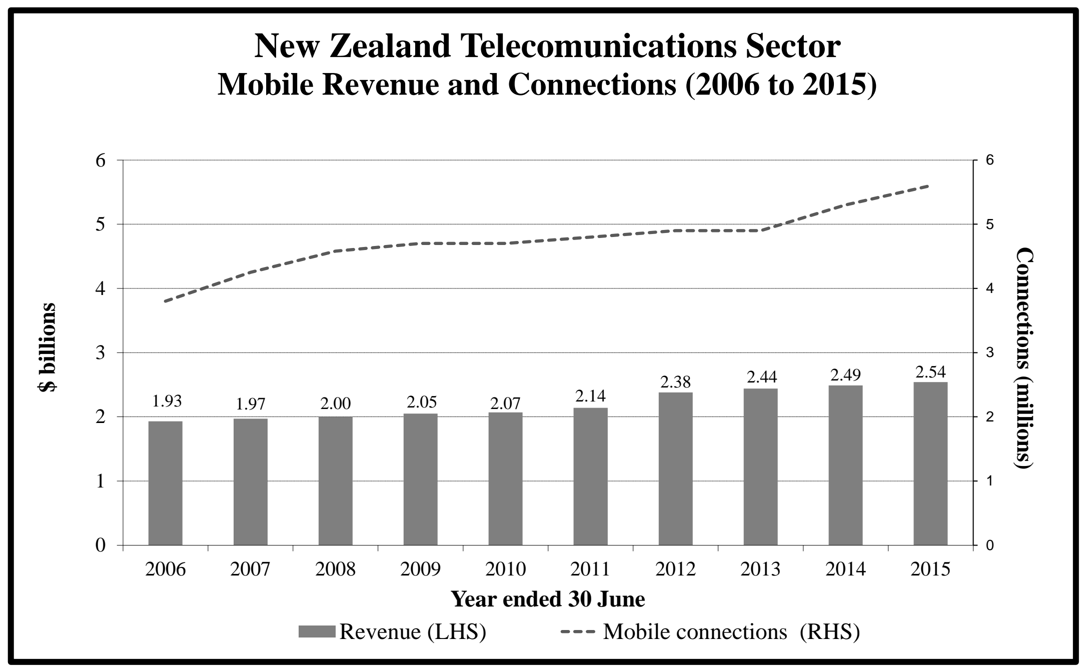
Acquisition of smaller competitors has enabled the major carriers in New Zealand to achieve cost efficiencies through increased scale and national reach.

3.4 The Mobile Market

The major participants in New Zealand's mobile market are Spark, Vodafone NZ, and 2degrees, which entered the market in 2009. Spark responded to the launch of 2degrees with the introduction of its own secondary brand, *Skinny*, to compete primarily in the prepaid market. However, Vodafone NZ remains the market leader with around 40% of connections while Spark (including *Skinny*) has around 36% of connections[17]. 2degrees has progressively captured market share and now accounts for approximately 24% of mobile connections, but a much lower share of revenue. The relatively low share of market revenue for 2degrees reflects the large proportion of its revenue that it generates from the typically lower value consumer prepaid market.

Mobile virtual network operators ("MVNO") represent a small proportion of the market in New Zealand, with only approximately 20,000-25,000 customers.

Since 2006, mobile revenues have continued to grow, primarily due to the continued increase in the number of connections. Recent data published by Vodafone NZ and Spark indicates that mobile revenues are coming under pressure due to the higher level of competition and consequent reduction in average revenue per user ("ARPU").



Source: Commerce Commission *Annual Telecommunications Monitoring Report 2015*

While the trend of fixed to mobile substitution (i.e. the abandoning by households of fixed phone and internet services for mobile services) is still evident, the physical constraints on mobile

[17] Source: Commerce Commission, *Annual Telecommunications Monitoring Report 2015*

bandwidth (finite spectrum, cost of base stations, topography and buildings that block signals) mean that fixed broadband services are expected to continue to play a major role in delivering high speed data to households.

3.5 The Fixed Line Market

The fixed line market in New Zealand is more fragmented than the mobile market as small retailers are able to compete with larger incumbents by selling regulated services provided by wholesale providers. Spark is the dominant provider of fixed line services, with estimated retail market shares of 48%[18] measured by connections and 56%[18] measured by revenue. Vodafone NZ has around a 29%[18] share of connections with the balance split between Vocus, Trustpower and others.

The industry consolidation that has occurred over the past two years has primarily been in the fixed line market. Acquisitions of note include:

- the acquisition of Snap by 2degrees, creating another participant in the market able to deliver "triple play"[19] offerings with the support of its own mobile network. Market evidence suggests that providing an increased number of services on a "bundled" basis both increases ARPU and improves customer retention rates (the net of customers gained and lost is usually referred to as customer "churn"); and
- the acquisition of Orcon by M2 Group Ltd ("M2 Group"), now part of Vocus, which has positioned Vocus as the clear third player in the fixed line market.

Increased competition has contributed to a progressive decline in fixed line revenue since 2010. This has reflected both lower overall market prices (primarily as a consequence of the proliferation of value bundles) and the replacement of traditional voice services by mobile services and messaging applications online (e.g. Skype).

Fixed line revenue has been supported by continued growth from broadband connections, primarily a result of the growth in fibre from the take up of the UFB, as can be seen on the chart below. The most recent quarterly report for the period January – March 2016 shows UFB connections grew by 131% over the previous 12 month period to 196,609 connections[20].

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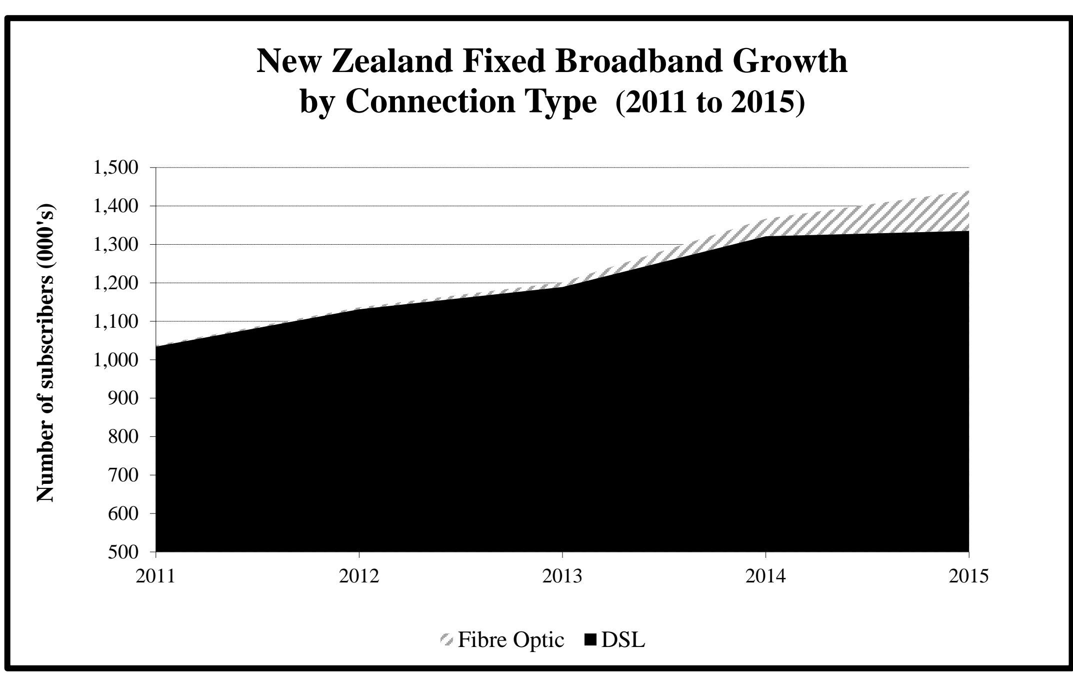
18 Source: Commerce Commission, *Annual Telecommunications Monitoring Report 2015* (using ISP market share as a proxy for fixed line share).

19 The sale of fixed voice, broadband and mobile in a bundle.

20 Source: MBIE Broadband Deployment Update – March 2016.



Source: Statistics New Zealand, *Internet Service Provider Survey 2015*

3.6 Infrastructure

Telecommunications infrastructure can be categorised as follows:

- **Local Access Infrastructure (Fixed and Mobile)**

  Commonly known as the "last mile", local access infrastructure is the immediate connection between the user's device or premises and the carrier's network. For households this can be:

  - a twisted pair copper phone line to the local exchange or street cabinet, which can carry PSTN (traditional phone) and DSL (broadband internet) services. The copper network in New Zealand is owned by Chorus;
  - a hybrid fibre-coaxial ("HFC") cable to the nearest optical node, which can carry pay television, broadband internet and phone services. Vodafone NZ operates an HFC network in parts of New Zealand (Wellington, Kapiti Coast and Christchurch) that it inherited as part of the acquisition of TelstraClear; and
  - a passive optical fibre to the nearest fibre access node to fibre networks, which can carry pay television, broadband internet and phone services. The fibre networks are primarily owned by Chorus and other LFCs under the UFB initiative.

  For mobile services, the local access infrastructure comprises the antennas, radio spectrum licences and associated equipment at the carrier's network of base stations. For businesses, local access infrastructure can be an optical fibre to the carrier's nearest node or a legacy copper phone line to a local exchange. Businesses also have access to the UFB local access infrastructure.

- **Core Network**

  A carrier's core network comprises high capacity optical fibre cables connecting each element of the network to switches that route data around the network. Core networks can be categorised as:

  - metropolitan networks – connections between business districts, local exchanges, data centres, mobile base stations and other network equipment within capital cities. The major metropolitan providers are Chorus and the LFCs that are building the UFB network; and

- long haul and inter-capital networks – connections between capital cities and regional cities. The major long haul and inter-capital fibre networks are owned by Chorus, Spark, Vodafone NZ and Vocus.

To provide customers with a connection to the internet, a carrier must connect its network both to other local carriers and also to global carriers offshore (typically known as "IP transit"). For New Zealand, this is done via a submarine optical fibre cable. The submarine cables connecting New Zealand to offshore locations form a critical element of telecommunications infrastructure. The submarine cables include:

- ***Southern Cross Cable***, connecting Sydney, Auckland, Fiji and the United States (Hawaii, California and Oregon). The Southern Cross Cable is owned by Spark (50.01%), Singapore Telecommunications Group Limited ("SingTel") (39.99%) and Verizon Communications Inc. ("Verizon") (10%);
- ***Tasman 2***, connecting Sydney and Auckland. Tasman 2 is owned by Telstra Corporation Limited ("Telstra") (36.84%), Spark (32.87%) SingTel (through Optus) (11.91%), Vodafone NZ (10.0%) and AT&T Inc. ("AT&T") (8.33%). This cable is low capacity and is primarily used for redundancy services (i.e. back up in the event of failure).

The Tasman Global Access ("TGA") cable connecting New Zealand and Australia is expected to be completed at the end of 2016. The TGA cable is owned by Spark, Vodafone NZ and Telstra.

While access to bandwidth on international cables remains a crucial asset for all New Zealand carriers, content providers such as Google (including YouTube), Netflix and Apple have deployed data storage locally to reduce lag times and international transit costs.

- **Data Centres**

Data centres allow corporate, enterprise and wholesale customers to locate network and storage equipment directly on a carrier's network, providing a secure environment, improved network performance and the ability to directly connect with other customers' equipment located at the same data centre. The limiting factors for a data centre's capacity are typically physical space, the amount of electrical power that can be delivered to the centre and the air-conditioning capacity of the centre.

A large number of local and international carriers and data centre specialists operate data centres in New Zealand including Spark, Vocus, Vodafone NZ, IBM, Hewlett Packard, Datacom and Plan B.

3.7 Wholesale Access to Infrastructure

Most telecommunications carriers do not own all of the infrastructure required to deliver services to their customers. There is a well-developed wholesale market for access to most (but not all) of the telecommunications infrastructure in New Zealand, comprising regulated access and commercially negotiated arrangements:

- **Regulated Access:** Access to certain infrastructure elements is available at fixed maximum prices determined by the Commerce Commission, typically where the owner has a monopoly on that form of infrastructure. Regulated infrastructure includes the copper access network and duct space and fibre in certain locations. Chorus is the primary operator of regulated infrastructure and is subject to Commerce Commission regulation. It is also the single largest UFB network operator; and
- **Commercially Negotiated Access:** Wholesale access to infrastructure is available for mobile networks, metropolitan and inter-capital fibre, international transit and satellite services. Wholesale access to fibre, international transit and satellite services is often sold as an indefeasible right of use ("IRU") which gives the buyer the right to use a maximum amount of bandwidth for a long term duration (typically 5-15 years). Wholesale access to mobile networks is more commonly charged on an ongoing basis depending on the bandwidth utilised or number of services in use.

Business models employed by telecommunications carriers vary from owning a portion of the infrastructure (e.g. Spark and Vodafone NZ) to owning minimal infrastructure and relying heavily on wholesale arrangements (i.e. a reseller).

The most contentious area of regulated pricing in recent years has been the wholesale price of consumer copper broadband products (e.g. DSL) and fibre input costs. These prices have now been fixed with a price path set to 2019. The wholesale copper prices are higher than entry level fibre costs which is intended to assist with the general migration of the market to the UFB network. There is no certainty regarding the pricing framework that will apply to fibre based products after 31 December 2019. The prices are likely to be regulated, but if that does not occur, the prices for fibre will be set by Chorus and the other LFCs.

The UFB network is to be unbundled in December 2019, which will allow retailers to invest in their own equipment and source layer 1 service from Chorus on a wholesale basis, and allow the other LFCs to deliver fibre services to the home. Chorus has made submissions to revisit the regulations. The Government is undertaking a review of telecommunications regulation to address the pricing and unbundling uncertainty associated with the UFB. The review is to be completed by 31 March 2019.

3.8 UFB and RBI

The New Zealand Government has implemented policies and invested capital to provide improved broadband access for households and business through the UFB initiative and the RBI:

- **Ultra-Fast Broadband:** The UFB initiative was launched by the New Zealand government as a public-private-partnership tender in 2009 with the objective of connecting 75% of homes to a fibre to the premises network by 2019. In 2014, the target was increased to 80% of homes and the completion date extended to 2022. The UFB is an equal-access wholesale only network. While end users can elect to retain or reconnect their old copper connection, it is expected that over time the UFB network will become the primary local access network. The Government selected four partners to deliver the UFB network: Chorus (approximately 70% of premises), Enable Networks (15%), Ultrafast Fibre (14%) and Northpower Fibre (1.6%).
- **The Rural Broadband Initiative**: The RBI was launched in 2011 to improve broadband access for premises in rural areas not covered by the UFB. The RBI will provide DSL services to 57% of rural households and fixed wireless access to a further 30% of rural households. The RBI is being delivered by Vodafone NZ and Chorus. Vodafone NZ is providing fixed wireless broadband to complement fixed line solutions and deliver peak downstream speeds of at least 5Mbps to circa 320,000 rural households.

As at 31 March 2016, there were 921,000 end users able to connect to the UFB network, with 63% of the UFB roll out complete, together with 285,000 premises able to connect to RBI services (89% complete).

3.9 Market Trends and Outlook

Technology, products and customer preferences in the telecommunications sector continue to evolve rapidly, affecting the market structure and both influencing, and being influenced by, regulatory response. Overall, change in the sector reflects a rapid move to a more interconnected society characterised by pervasive technology and the universal availability of high speed data. The key trends features of the outlook included:

- **Declining Revenue**

  Revenue growth for the sector has been in overall decline in recent years due to a number of factors including:

  - revenues from traditional services such as fixed voice revenues via PSTN continue to decline due to mobile substitution, pricing bundles and the use of online messenger applications (e.g. Skype, Facebook Messenger);
  - the mobile market is widely believed to have reached or to be approaching maturity, characterised by high levels of penetration. While the number of connected devices continues to rise (e.g. entertainment devices, vehicles, machine-to-machine communications), these services typically add only a small amount of incremental revenue to an existing customer's account;
  - the fixed broadband market is considered to be close to maturity; and
  - cost reductions achieved by carriers have resulted in lower prices in a competitive environment. Cost reductions have been driven by:
    - lower prices for network equipment;
    - consolidation of carriers enabling efficiencies of scale; and
    - regulatory decisions that have reduced wholesale access prices for copper networks and mobile call termination.

  Slowing market growth presents a challenge for carriers. Organic growth must come by taking market share from competitors or formulating new product bundles rather than implementing price rises or securing new customers. In this context, customer retention (i.e. reducing churn) is a key driver of future profitability.

- **Increase in Data Volumes**

  The volume of data downloaded by internet users has grown at dramatic rates since broadband connections became available in the early 2000s. Data demand has intensified in recent years, driven by the popularity of video streaming services such as subscription services (e.g. *Netflix*, *NEON* and *Lightbox*), catch-up services for broadcast television (e.g. *TVNZ On Demand*), video content on news websites, social media and user generated content. Mobile networks have also experienced dramatic growth in demand for mobile data services, particularly for video content.

  The volume of data downloaded over fixed line broadband services in New Zealand rose at an average rate of 51% per annum in the five years to June 2015[21]. Cisco Systems Inc. ("Cisco") predicts that this volume will continue to grow at an annual rate of 21% between 2014 and 2019 and that video data will represent 86% of all consumer traffic by 2019 (up from 74% in 2014)[22]. In 2015, New Zealand's mobile data grew 67% and Cisco predicts this volume will grow at an annual rate of 43% between 2015 and 2020[23].

  The increasing demand for bandwidth favours infrastructure owners over resellers, as large upgrades to the capacity of an owned fibre network can be made for relatively little cost, while resellers are subject to wholesale arrangements priced per unit of capacity.

[21] Source: Cisco Systems, Inc., *Visual Networking Index Global IP Traffic Forecast, 2015- 2020*, February 2016.

[22] Source: Cisco Systems, Inc., *Visual Networking Index Global IP Traffic Forecast, 2014-2019*, May 2015.

[23] Source: Statistics New Zealand *Internet Service Provider Survey 2015*.

- **Bundling and Convergence with Content**

Telecommunications companies have been increasingly seeking to bundle services in a single package (and, ideally, through a unified interface with the customer to cover all the services provided on an integrated basis). Bundles are generally either "triple play" or "quad play" offerings combining some or all of fixed voice, fixed broadband, mobile (voice and data) and pay television. The objective of bundling is to enhance the overall value and attractions of the package and to protect revenue (in part by making direct comparisons more difficult). From a marketing perspective these bundled offerings have become a key plank in the strategies for both telecommunications companies and pay television operators.

Historically, the separate technologies used for pay television (analogue cables or satellite) meant that for a telecommunications company the bundling with pay television was achieved through partnerships or other commercial relationships (e.g. the relationship between AT&T and satellite operator DISH Network Corporation ("DISH") in the United States). At the same time:

- some telecommunications companies developed their own pay television services. For example, in Australia, Telstra took a 50% interest in the FOXTEL Partnership ("FOXTEL") when it started (which involved an HFC network separate to Telstra's own network) and Optus developed its own pay television business; and
- some pay television operators established their own voice and broadband (and, potentially, mobile) offerings utilising their own cable networks. Even satellite based broadcasters have moved down this path. The best example is Sky plc in the United Kingdom which is now one of the two largest retailers of broadband services, using third party open access cable networks.

More recently, the industry has seen:

- a blurring of the traditional boundaries as a result of digitisation. Pay television no longer requires separate delivery platforms and can be delivered over the internet;
- increased demand for video content on mobile devices and changing consumer viewing habits (fuelled by technology developments);
- mergers between telecommunications companies and pay television operators such as AT&T's acquisition of DIRECTV LLC ("DIRECTV"), the acquisition by Vodafone Group of Kabel Deutschland Holding AG ("Kabel Deutschland") and the merger of Vodafone Group's business in the Netherlands with the Ziggo business owned by Liberty Global plc ("Liberty Global"); and
- acquisition of content rights by telecommunications companies directly, for example, the recent purchase by Optus of the Australian rights to the English Premier League ("EPL") (and the earlier acquisitions by Telstra and Optus for non pay television digital broadcast rights for sports events). Content acquisition is driven by two key factors:
  - the attraction to customers and the anticipated benefits in terms of pricing, new customer acquisition and reduction in churn; and
  - greater ability to fully exploit the content across multiple platforms and delivery formats.

In short, access to exclusive quality video content has now become a fundamental strategy for, and differentiator between, telecommunications companies.

- **Migration of Business and Consumer Services to the Cloud**

  The use of external processing and storage has spread to large and small businesses and consumers and is often referred to as cloud services. Examples of cloud services include a document management system for an engineering firm, a photo storage library for a consumer, or a customer database and billing system for an insurance company. The increasing use of cloud services by businesses and consumers drives greater demand for data centre space and high speed network connections to those data centres.

- **Expanding Internet Applications**

  A rapidly increasing range and number of devices are becoming connected to the internet. These range from:

  - consumer devices and appliances such as entertainment devices (e.g. tablets, televisions), air-conditioning systems and security systems;
  - vehicles such as trains and buses (public safety, passenger internet access), cars (in-car entertainment, navigation, fault reporting) and commercial vehicles (tracking, fleet management);
  - stationary devices such as gas and electricity meters, parking meters, vending machines and industrial equipment; and
  - surveillance and security systems for businesses and public spaces.

  As the number of devices proliferates, there will be increasing opportunities for carriers to provide broader coverage through wireless and fibre networks and managed services to activate and monitor fleets of network-connected devices.

Given the rapid rate of change in the sector and frequent development of new technologies, it is difficult to make accurate predictions for the telecommunications sector. Overall, it is expected that the sector will continue to experience:

- growth in demand for data, higher data rates and more connected devices;
- relatively low revenue growth in the absence of a major catalyst for price increases;
- a steady stream of new products, services and technologies;
- increasing levels of integration between services; and
- increasing demand for flexible access to video content across devices (anywhere, any time).

4 Overview of the Television Broadcasting Industry in New Zealand

4.1 History of Broadcasting in New Zealand

The first television broadcast in New Zealand took place in June 1960 and the broadcast was limited to just three hours per day to households in Auckland. Transmission began in Christchurch and Wellington one year later in June 1961. A second channel was introduced in 1975 called Network Two. TV One and Network Two merged in 1980 under the control of Broadcasting New Zealand ("BCNZ"). In 1988, BCNZ was dissolved and Television New Zealand Limited ("TVNZ") became an autonomous government-owned commercial television company.

The New Zealand television market was deregulated in 1989 and, in the same year, the first privately owned free-to-air television network, TV3, was established. Additional privately owned free-to-air channels were subsequently made available to viewers with the introduction of TV3's sister channel Four in 1997 and Prime.

In 1990, subscription-based television was introduced with the launch of *SKY TV*. Originally only households in Auckland, Hamilton and Tauranga were able to subscribe and the only channels available were *SKY Movies*, *SKY Sports* and *SKY News*. Over the years the range of content and number of channels available to subscribers has increased significantly and today *SKY TV* broadcasts over 100 channels nationwide.

4.2 Market Structure

Due to the size of the New Zealand market there is limited competition between free-to-air and pay television providers.

TVNZ accounts for the majority of free-to-air television viewing through its two main channels TV One and TV2. In competition with TVNZ are TV3 and Four, which are privately owned by MediaWorks Investments Limited ("MediaWorks"), and Prime which is owned by Sky TV. Sky TV, however, has no significant competition within the pay television market and has been the only traditional pay television provider in New Zealand since it was first introduced in 1990.

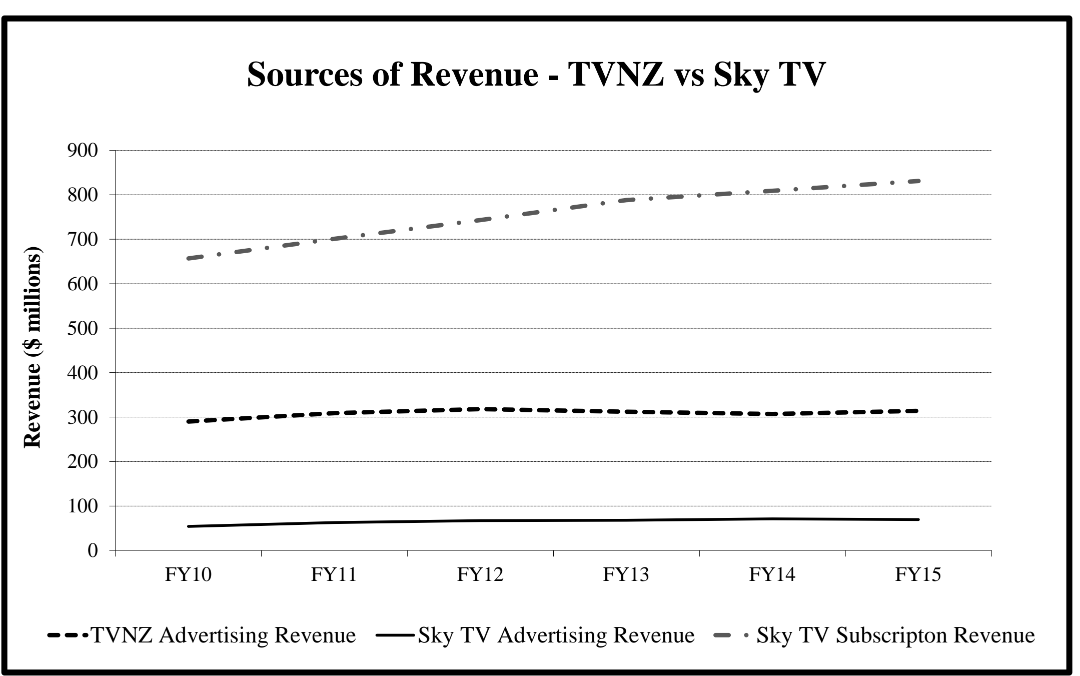
Free-to-air broadcasting in New Zealand is funded almost exclusively through the sale of commercial advertising. For the year ended 30 June 2015, the revenue received by TVNZ from advertising amounted to $313 million, representing approximately 90% of its total revenue for the year.[24] Advertising revenue represented over 99% of MediaWorks revenue in 2014.[25]

In contrast, Sky TV relies more heavily on a revenue model focused on subscription fees rather than advertising revenue. Fees charged by Sky TV, as with most pay television operators globally, include:

- upfront fees for the supply and installation of infrastructure (such as decoders and set-top boxes);
- a monthly fee for access to a pre-agreed set of basic channels;
- monthly fees for upgraded features such as an expanded set of channels or high definition; and
- one-off fees for access to specific content (e.g. pay-per-view films or sports events).

[24] Source: TVNZ Annual Report, 2015.

[25] Source: MediaWorks Annual Report, 2014.



Source: TVNZ Annual Reports, Sky TV Annual Reports

In 2007, a joint venture between TVNZ, MediaWorks and other broadcasters was formed to create *Freeview* as a vehicle for distributing digital versions of their television and radio signals (in advance of switch off of the analogue network which occurred in 2012 and 2013). *Freeview* utilises high definition capable digital terrestrial distribution and satellite to provide 100% national coverage. In 2014, it was estimated that approximately 60% of all digital television in New Zealand was made up of *Freeview* users. Broadcasters retain the advertising revenue relating to their channels but there is potential for *Freeview* to monetise its on-demand offerings over time with a subscription service for premium content or catch-up capabilities.

4.3 Distribution of Content in New Zealand

Television content in New Zealand is distributed to consumers via terrestrial transmission, satellite and the internet.

In New Zealand, terrestrial television is primarily free-to-air and is transmitted with unencrypted signals broadcast for viewing by any television receiver within a distribution region. In the early years, free-to-air broadcasting was restricted to individual channels each transmitting within a narrow analogue spectrum range. Since 2012 however, with the introduction of Freeview, free-to-air has shifted to digital technology, which makes better use of the increased available bandwidth. This move has allowed for improvements in audio-visual quality, simultaneous transmission of data with content and multiple channel broadcasting.

Sky TV's traditional service is largely transmitted via satellite and encoded at the source. In order to view the content the subscriber requires a satellite dish and a set-top decoder box to decode the transmission.

Internet distribution of television programming is a more recent phenomenon in New Zealand. There are two forms of internet based television, Internet Protocol Television ("IPTV") and Over-the-Top ("OTT"). IPTV operates in a closed internet system which is a dedicated, managed network controlled by the local broadcaster and offers standard live television, time-shifted television (allowing viewers to catch-up on the television shows previously broadcast) and video on demand (with a catalogue of television shows not related to television programming). Vodafone NZ (with its UFB enabled *Vodafone TV* to deliver on-demand content to its viewers) is the only IPTV service provider in New Zealand.

OTT services involve the delivery of content through the open internet on an on-demand basis, typically providing consumers with access to a wide variety of current and historical programming from film and TV entertainment libraries held by major American content owners. In contrast with traditional pay television and free-to-air television, both of which are broadcast in a linear fashion, OTT service providers allow consumers to watch available programmes at any time, often seamlessly across a variety of devices both inside and outside the home. OTT services do not require a set-top box and can be paid for on a subscription (Subscription Video on Demand or "SVOD") or transactional (Transactional Video on Demand or "TVOD") or Pay Per View basis. Typically, monthly subscriptions for OTT access to film or television programming are far less expensive than traditional pay television programming packages. Free OTT services (such as YouTube) are generally funded by advertising.

TVNZ (*TVNZ OnDemand*), MediaWorks (*TV3 Now*) and Sky TV (through its set-top boxes that have been Internet enabled and its application *SKY GO*) all offer a form of OTT service. *TVNZ OnDemand* and *TV3 Now* offer re-runs of previously broadcast programmes whereas Sky TV offers its customers live or replayed content for channels to which households have a subscription.

There are currently three significant providers of subscription based OTT programming in New Zealand – *Netflix*, owned by the United States based Netflix, Inc., Spark's *Lightbox* service and Sky TV's *NEON* and *FAN PASS* services.

The UFB roll out is also impacting consumption of OTT and IPTV video content (and potentially provides an additional channel for the delivery of traditional pay television services). Consumers are already accessing significant volumes of video content on-line. Recent statistics show that data usage in New Zealand was approximately 140% higher in June 2015 than in 2013 and that households were accessing data equating to approximately 27 hours of video a week (without defining what proportion of that is IPTV or OTT).[26]

4.4 Viewing Trends in New Zealand

The viewing habits and experiences of New Zealand consumers continue to evolve. The amount of video content made available via free-to-air and pay television has increased significantly, while distribution quality has improved due to the transition from analogue to digital transmission. The most significant development in recent years, however, has been the way in which viewers are consuming video content. Although traditional viewing via a television set remains the most common form of consumption, the trend is for a growing number of alternative devices to be used including desktops/laptops, mobile phones, tablets and smart televisions.

Over 3.5 million New Zealanders watch an average of 20.5 hours of broadcast television on their in-home television sets each week (both free-to-air and *SKY* channels).[27] In total, approximately 70% of New Zealanders watch video content exclusively through traditional television sets while approximately 20% use both the internet and their television sets. An estimated 4% of viewers consume video content exclusively online and this number is growing.[28]

Viewing content on mobile devices allows audiences to watch what they want, where they want. Tablets in particular provide a user experience that is similar to a traditional television and are often used as a secondary viewing device in the household at the same time as a television set. Accordingly, although increasing amounts of content are being viewed on mobile devices, there has not been a corresponding decline in traditional television usage. Mobile devices appear to be complementary to rather than in competition with traditional television viewing.

[26] Source: Statistics New Zealand.

[27] Source: Nielsen, *New Zealand Multi-screen Report 2015*.

[28] Source: Nielsen, *New Zealand Multi-screen Report 2015*.

Television Content Viewed by Device			
Device	**% total ownership**	**% of population watching video**	**Average time spent viewing (hours)**
Traditional TV set	97%	92%	20.5
Desktop/Laptop PC	60%	41%	5.1
Smartphone	59%	22%	3.7
Tablet	26%	16%	3.6

Source: Nielsen, *New Zealand Multi-screen Report*, 2015

The trend in New Zealand is consistent with global trends, with research indicating that mobile devices are used to view content, on average, for 6 hours per week.[29] In terms of traditional television set usage, however, New Zealand is significantly higher with 70% of consumers using a television set only,[30] compared to the global average of approximately 56%.[31]

4.5 Over-the-Top Services in New Zealand

Consumers are increasingly accessing video entertainment provided by OTT service providers. With the growing availability of high speed broadband internet, OTT has become a viable distribution channel in recent years and OTT services now compete directly with traditional pay television and free-to-air television.

New Zealanders tend to be early adopters of technology trends despite the small market size and geographic location and it is believed that New Zealand has one of the highest rates of OTT penetration in the world.

As a result of exclusivity agreements between production companies and New Zealand based distributors, Spark (*Lightbox*) and Sky TV (*NEON*) own the rights to a number of premium shows that would otherwise be available on *Netflix*. The *Netflix* offering in New Zealand is therefore currently considerably weaker than in the United States, allowing *Lightbox* and *NEON* to maintain a competitive presence in the local OTT market.

In addition to the general entertainment based content streamed in New Zealand, sports events are also beginning to be made available via OTT through Sky TV's *FAN PASS* and *Lightbox Sport* (a joint venture between Spark and Coliseum Sports Media). *FAN PASS* allows internet users who do not subscribe to *SKY* to watch *SKY* sports channels by purchasing a daily, weekly or monthly pass. *Lightbox Sports* owns the rights in New Zealand to the EPL (soccer) and the PGA Tour (golf). Subscribers pay a monthly or annual fee to access the programming.

IPTV and OTT providers in New Zealand			
	IPTV	**Live/Catch Up OTT**	**Subscription OTT**
Free-to-air		TVNZ, 3 NOW	NETFLIX, NEON, Quickflix, FP, LIGHTBOX
Pay Television		GO	

[29] Source: *TV and Media Insight Report* – Ericsson, 2015.

[30] Source: Nielsen, *New Zealand Multi-screen Report 2015*.

[31] Source: *TV and Media Insight Report* – Ericsson, 2015.

4.6 Market Trends and Outlook

The growing consumption of OTT and other internet based video content is the most significant issue facing the television broadcast industry. It represents both a threat and a competitive opportunity for the incumbents in the industry in New Zealand. Free-to-air and pay television broadcasters now have to work harder to attract and maintain viewership as customers are increasingly embracing new technologies. These pressures are reflected in the sharp reductions in Sky TV subscriber numbers in recent months.

Given the relatively recent introduction of OTT services, their long term impact on pay television is not yet clear, and will in any event vary significantly from market to market. However, services such as *Netflix* have already achieved significant subscriber penetration rates in the United States, Australian and New Zealand markets, and have had a material impact on the businesses of traditional pay television providers in those markets. In the United States, *Netflix* has built a subscriber base estimated at 47 million, while more recent entrant *HULU* has already won an estimated 12 million subscribers. Pay television operators have experienced higher subscriber churn rates and in some cases significant subscriber losses, as subscribers abandon their pay television contracts in favour of OTT services (so called "cord cutting"), and further revenue losses as subscribers downgrade their pay television packages to cheaper packages ("cord shaving") while accessing additional video entertainment through OTT services. Over time, pay television operators will lose additional revenue as younger consumers who might otherwise have become new subscribers for pay television choose to source all their video entertainment from OTT providers.

Pay television operators have responded to the OTT threat at a variety of levels. The ability to package multiple services (including fixed line voice, broadband, mobile and pay television) into a single bundled offering has become increasingly important, with these bundled packages making price and value comparisons more difficult and providing disincentives for subscribers to churn. While the provision of bundled offerings may reduce ARPU, the reduction in churn rates and the opportunity to sell additional products in the bundle provide countervailing benefits.

Some pay television distributors have responded to OTT competition by changing pricing or creating "skinny" or "light" channel packages, which allow consumers to subscribe to OTT services while retaining a "cut down" pay television offering. While these reduced price channel packages result in reduced ARPU, they may help to limit losses in (or even boost) subscriber numbers. In Australia, FOXTEL, the largest pay television distributor, reduced the pricing of its base product by almost 50% in November 2014, ahead of the March 2015 Australian launch of *Netflix*. The result was a substantial increase in subscriber numbers, notwithstanding *Netflix*'s market entry.

In some markets, incumbent pay television (and free-to-air broadcasters) operators have responded to the threat of OTT competition by launching new products, including their own OTT services. In Australia, FOXTEL and Seven West Media Limited launched *Presto*, while Nine Entertainment Co Holdings Ltd and Fairfax Media Limited launched *Stan*. In markets in which the pay television operator has premium programming content and/or exclusive rights (for example to sports), this potentially provides an opportunity for the incumbent to grow its total revenue base.

In addition, growing an OTT subscriber base can provide pay television operators with an opportunity to generate additional advertising revenue. Advertising has been gradually evolving to address the increasing proportion of time that users spend watching non-linear television and in markets such as the United States the linear television market has lost advertising revenue at the same time as there has been a marked increase in online spend. In the United Kingdom, Sky plc has developed the ability to screen targeted advertisements to particular customer groups, which is an attractive feature for advertisers. OTT platforms can be particularly appealing to advertisers as OTT services can allow the tracking of demographic information about consumers at a more granular level than traditional television, thus allowing advertisers to better target advertisements and advertising spend.

It is likely that the impact of OTT services on pay television operators will vary from market to market, reflecting a range of factors. Penetration rates are a key market differentiator, with the United States having significantly higher pay television penetration rates of around 80-90% by comparison with the United Kingdom (around 60%), Australia (around 30%) and New Zealand (a little over 50%). In markets with very high penetration rates, OTT may be a greater competitive threat to pay television incumbents than in markets with lower penetration rates. For example, early indications are that in the United Kingdom, the introduction of OTT services has created a new and growing market for industry incumbents to generate revenue.

Similarly, differences in market size and structure may also result in differences in the ultimate impact of OTT services. In smaller markets in which the incumbent pay television operator has extensive programming rights and plays a valuable role in marketing content to consumers, there may be less incentive for content owners to bypass the pay television channel and deliver content directly to consumers via OTT (which would necessitate developing their own marketing capabilities in those markets). On the other hand, markets characterised by large vertically integrated participants, whether major telecommunications players with large positions in the pay television market (eg AT&T through its recent acquisition of DIRECTV and Verizon in the United States, and BT Group Limited ("BT Group") in the United Kingdom) or businesses that combine studios/content creation with pay television service (such as Comcast's ownership of NBCUniveral) are likely to display different competitive dynamics from those in which the participants in disaggregated. The dominance of FOXTEL and Sky TV in their respective markets makes the Australian and New Zealand markets significantly different propositions from the United States market.

The availability of exclusive premium content is likely to be a further driver of differences in the impact of OTT services across markets. In particular, the availability of exclusive sports programming may be a powerful defensive opportunity for pay television operators. In some markets (such as Australia) government mandated access to sports programming via free-to-air television ("anti-siphoning legislation") limits the ability of pay television operators to secure exclusive rights over the most attractive programming. However, in other markets, such as the United Kingdom for soccer and New Zealand for rugby, exclusive sporting rights fundamentally underpin the content offerings of the incumbent pay television operators and are a driver of subscriber loyalty. Moreover, they help to support advertising revenues and can provide the basis for the incumbent pay television operators' own OTT offerings.

More generally, the proliferation of OTT services has intensified the competition for content, driving up content costs and prompting participants to make a variety of competitive responses. Networks in the United States and OTT services providers have commented that ownership of the best original content is key to revenue growth, driving subscriptions and advertising spend. OTT players such as Netflix have responded by generating their own original content. Conversely, traditional content producers have sought to market their content directly to consumers. For example, the *HULU* is a joint venture between three of the largest television networks in the United States, ABC, Fox and NBCUniversal, and has access to new content generated by each of these networks.

Increased programming costs have also threatened the economics of some pay television services. In the face of declining subscriber numbers and programming cost pressures, pay television distributors in the United States such as Cable One and Suddenlink have responded by rationalising their content and providing less extensive, more economical (and less costly) offerings. Subscriber numbers for The Walt Disney Company's ("Disney") *ESPN* sports channel fell in late 2015 due in large part to cord shaving and decisions by pay television distributors in the United States to omit *ESPN* from new "skinny" bundles. However, sports programming continues to be highly desirable and increasingly costly. In 2015, Sky plc paid £4.2 billion for the rights to 120 premier league football games (across three seasons from 2016), a 70% increase on the previous contract. Similarly, Sky TV's contract for rugby involved a significant cost increase.

The long term outcome of the growing competition between OTT providers and traditional pay television operators is unclear. Ultimately, in a form of “content based convergence”, it may be increasingly difficult in some markets to differentiate between OTT and pay television offerings. *HULU* has recently announced an initiative to deliver to its subscribers an offering that will “fuse the best of linear television and on demand”. In markets offering ubiquitous high speed broadband, consumers will presumably over time become agnostic as to precisely what technologies are used to deliver video content for their entertainment. Rather, content, convenience and cost will likely be the key determinants of success in an ongoing competition between multiple potential providers of video content.

5 Profile of Sky TV

5.1 Background and History

Sky TV was established in 1987 and commenced broadcasting on the UHF frequency in May 1990. In 1997, Sky TV listed on the NZX and raised $138 million, primarily to fund capital expenditure. In 1998, the company commenced the roll out of its digital satellite broadcast service, enabling the company to offer a wider range of channels and provide value added and interactive features such as pay per view, movies on demand and gaming.

Between 1999 and 2003, Independent Newspapers Limited ("INL"), a subsidiary of News Corporation, increased its shareholding in Sky TV to 78.4% through a series of transactions including a full takeover offer. In 2005, INL and Sky TV merged by way of a Scheme of Arrangement and the merged company was renamed Sky TV. The major shareholders of the company following this transaction were News Corporation, with a 43.7% shareholding, and Todd Communications Limited ("Todd Communications") with 11.1%.

Following the merger, the company continued to grow both:

- organically, including expansion of its product and service offerings; and
- by acquisition. In 2006, Sky TV acquired the free-to-air channel Prime and, in 2010, it acquired On Site Broadcasting (NZ) Limited.

In November 2012, the Todd Communications shareholding was sold to institutional and private investors and in March 2013, News Corporation sold its 43.7% shareholding to institutional investors.

5.2 Business Operations

5.2.1 Products and Services

Sky TV's products and services can be segmented into:

- **Traditional**

Sky TV's traditional services include a pay television platform and a free-to-air broadcast station (Prime). The content is created or aggregated at a central location and then bundled and delivered to customers via satellite. Under the *SKY* brand, the company sells packages of services and content under the following structure:

	Service	Monthly Price
Content (SKY)	***Basic Package (over 50 channels)*** ▪ Entertainment ▪ Leisure and Lifestyle ▪ News ▪ Documentaries ▪ Kids Channels	$49.22
	Sports (7 Channels)	$28.29
	Rugby Channel	$8.81
	Movies (7 Channels)	$20.93
	Rialto	$11.19
	Premium Drama ("SoHo")	$9.99
	Sky TV Digital Music	$3.16
	Pay per view movies and events	-
Extras	Personal Video Recorder Box	$15.00
	High Definition ("HD")	$9.99
	Multi-room	$25.00

Sky TV offers a Basic package that includes over 50 channels and can be supplemented with additional content packages or extra services. Sky TV markets its products directly and through Vodafone NZ and other partners such as 2degrees, which bundle Sky TV services with residential telecommunication packages. In May 2015, Sky TV strengthened its relationship with Vodafone NZ by marketing Vodafone NZ's broadband and home phone packages.

- **New Business**

The increasing availability of high speed broadband, particularly as a result of the rollout of the UFB network, has facilitated the development of new entertainment services and business models. Sky TV has recently launched the following services to complement its traditional business and provide alternative service offerings to customers electing to move away from the traditional platform:

Service	Description
NEON	Sky TV launched its SVOD product in February 2015. The service is delivered via the internet and allows customers to access a library of Sky TV's content (both movies and television series) for a set monthly fee. *NEON* is currently being marketed directly by Sky TV and through two telecommunication partners – Vodafone NZ and 2degrees
FAN PASS	Sky TV launched *FAN PASS* in February 2015, delivered via the internet and providing access to Sky TV Sport channels. *FAN PASS* can be purchased on a daily, weekly, or monthly basis (previously sport could be purchased by event) and is available to Sky TV and non Sky TV subscribers.
SKY GO	In 2013, Sky TV launched *SKY GO*, which allowed its customers to use their computers or mobile devices as an additional device to view Sky TV content anywhere in New Zealand.
IGLOO	*IGLOO* is a low-cost pay television service over both the digital terrestrial network and via the internet. An *IGLOO* subscription provides 13 Sky TV channels and the ability to rent movies and order pay-per-view sports events that are delivered via the internet. This service is targeted at FreeView audiences who want more content but do not want to purchase a full Sky TV package.

5.2.2 Programming

The quality of Sky TV's programming directly affects its ability to attract and retain subscribers. Historically, Sky TV's critical programming has been its exclusive ownership of sports, movie and premium TV series offerings. Sky TV has over 400 separate content contracts that are periodically negotiated and extended for typically between three and five year terms. The following contracts are viewed as critical to Sky TV's service offering:

- the exclusive rights to the live broadcast of the All Blacks, Super Rugby and NPC rugby. In 2015, Sky TV renewed its five-year contract with the New Zealand Rugby Union and SANZAR to 2021. Sky TV has also recently signed up the rights for international and domestic cricket played in New Zealand to 2020 and Australian National Rugby League to 2022;
- HBO, which provides *SKY*, *NEON* and Prime with premium content shows such as *Game of Thrones* and *True Detective*. In FY15, Sky TV entered into an all-inclusive and exclusive agreement with HBO across all platforms;
- Disney, which provides sports with *ESPN*, and children's and family entertainment with the *Disney*, *Pixar*, *Star Wars* and *Marvel* catalogues;
- Viacom, which includes children's programming with *Nickelodeon*, *Comedy Central* and music and entertainment with *MTV*;

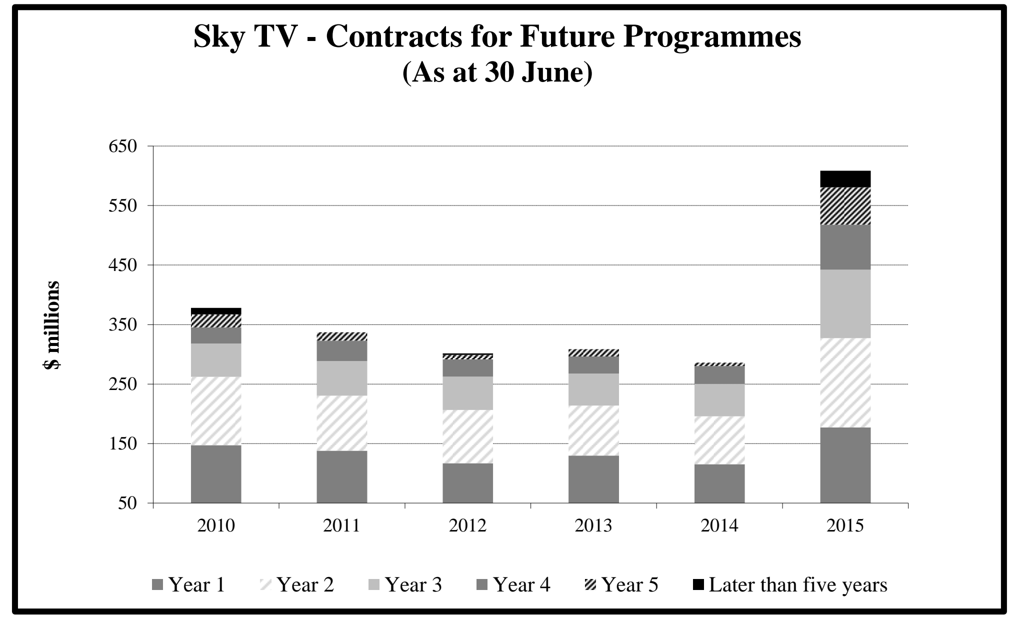
- Discovery, which includes a large catalogue of documentary and lifestyle programmes; and
- agreements with the major movie production companies including Roadshow, Warner Brothers and Universal.

Programming contracts are primarily denominated in Australian and US dollars. As a result, the New Zealand dollar costs to Sky TV are affected by exchange rate movements, subject to any foreign exchange hedging in place. Fixed price contracts denominated in foreign currencies are fully hedged.

Sky TV's programming expenses are the single largest expense of the business, representing approximately 54% of Sky TV's total operating costs. Overall programming expenses have been steadily increasing over the past five years due to:

- an increase in the number of channels offered from 112 in 2010 to 121 in 2015;
- inflation and competitive pressure on content pricing, reflecting the entry of new participants that are providing OTT services (e.g. *Lightbox* and *Lightbox Sport*); and
- new Sky TV platforms. Sky TV has also secured content rights to distribute its content through its new business platforms (e.g. *NEON*, *FAN PASS* and *SKY GO*).

Sky TV management has consistently focused on locking in critical programming content. As illustrated in the graph below, Sky TV's contractual commitment for future programmes have typically ranged between $300 million and $380 million. In FY15, Sky TV's contractual commitment for future programmes increased to $608 million, reflecting an initiative by management to secure critical programming content for as long as possible. The substantially increased contractual commitments will result in higher programming costs in FY16 and beyond.



Source: Sky TV

5.2.3 Technology Platform

Sky TV's service is dependent on the effective combination of a number of technologies. With the evolution of internet based services, Sky TV's technology platform has become increasingly complex. The key planks of the platform are:

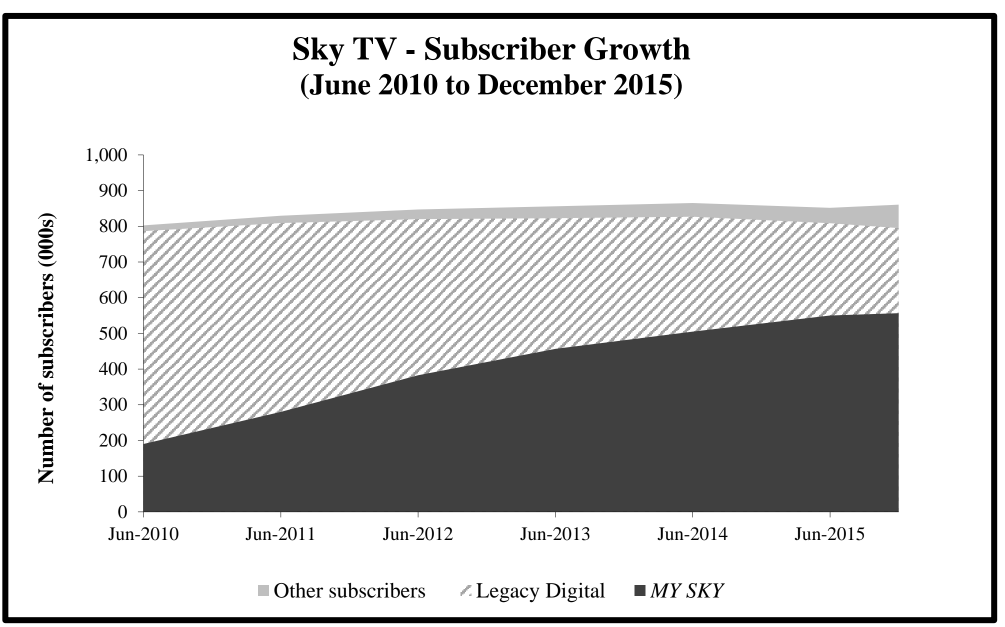
- **Decoders:** Sky TV's decoders (or set top boxes) are the primary point of contact between Sky TV and its customers. Sky TV has three generations of digital decoders currently in use. The first generation decoders ("Legacy Digital") are basic and do not have a number of features that are now seen as critical to the consumer experience (for example, they do not have hard drives and so are unable to record and pause programmes, they have a limited programming guide and no online functionality). Sky TV has successfully migrated a large proportion of its customer base from the Legacy Digital platform to the second generation "*MY SKY*" decoders. In 2015, Sky TV launched its third generation *MY SKY* decoder. All current Legacy Digital customers are being migrated to the new decoder free of charge. A recent software upgrade on all existing *MY SKY* boxes allows *MY SKY* boxes to connect to the internet, increasing the overall functionality and service offering for customers (e.g. it enables customers to download and watch shows on demand via the internet);
- **Satellite services**: Sky TV's primary distribution is via its digital satellite service. Sky TV has a contract with Optus Networks Pty Limited ("Optus"), a subsidiary of SingTel, to lease transponders on the D1 satellite until 2021. Sky TV is currently utilising seven transponders on the D1 Satellite, six of which are on a long-term lease. Access to the seventh transponder was provided in 2011 to enable the launch of additional channels. Because many customers continue to use Legacy Digital decoders, Sky TV has to transmit using both MPEG2 and MPEG4 compression technology. Once all customers have migrated to *MY SKY* boxes (which utilise MPEG4), Sky TV's available satellite capacity will double, enabling Sky TV to add more channels, including HD channels, and launch ultra high definition channels;
- **Online distribution:** Sky TV also distributes its content via the internet-based Content Delivery Network ("CDN"). As Sky TV's online distribution strategy evolves, the complexity and costs associated with the online distribution platform will increase; and
- **Core platform:** Underlying Sky TV's content delivery and receiving technologies is the core platform, which is a mesh of multiple technologies using third party and propriety software. There are many critical aspects of the core platform including content scheduling, rights management, customer management and billing. Rights management is becoming more complex as contracted programming rights may be restricted to a prescribed form of customer interface.

5.2.4 Subscription Base

The number of Sky TV subscribers has been broadly flat since 2010, with penetration of New Zealand households remaining relatively constant at around 50%. From 30 June 2010 to 30 June 2014 Sky TV added approximately 50,000 subscribers, but the total number of subscribers fell in FY15. The increased FY15 and FY16 churn reflected an increase in competition from OTT services and a loss of customers who used Sky TV's Legacy Digital decoders. *MY SKY* customers represent approximately 65% of the total subscriber base.

Sky TV has also grown its non-traditional subscriber base[32] with the assistance of recently launched products *NEON* and *FAN PASS*. From 30 June 2015 to 31 December 2015, Sky TV achieved net growth of approximately 9,000 subscribers despite annual churn increasing to approximately 15.3% (1.3% higher than the average since 2010).

[32] Includes commercial subscribers, subscribers to other services such as *NEON*, *FAN PASS* and *IGLOO* and subscribers to programmed music and online DVD rentals via Sky TV's subsidiary companies, Sky DMX Music Limited and Screen Enterprises Limited.

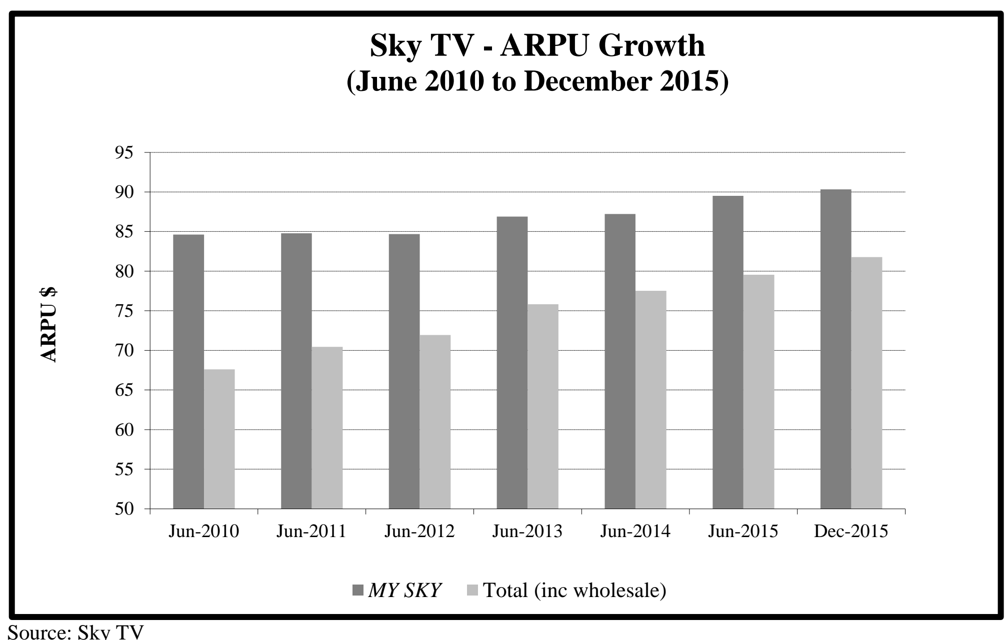


Source: Sky TV

On 6 May 2016, Sky TV announced that it expected total subscribers to fall to approximately 830,000, as at 30 June 2016 (including a loss of 45,000 core residential subscribers).

5.2.5 Revenue

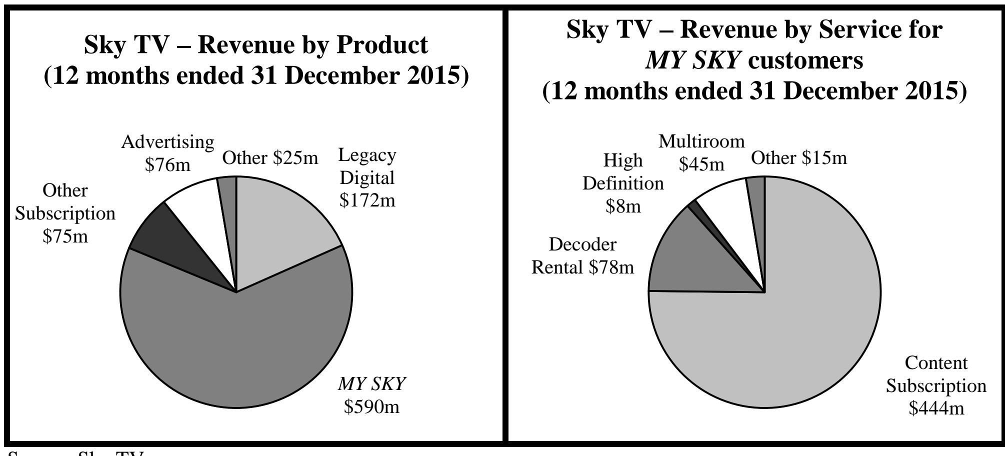
Sky TV's revenue growth is a function of overall subscriber numbers and average revenue per user. Sky TV has had a history of year on year ARPU growth, reflecting the progressive expansion of Sky TV's service offering through the addition of new programming, additional services and incremental price increases to address rising programming costs and inflationary pressures[33]. The ARPU growth over the last five years is illustrated by the graph below:



Source: Sky TV

[33] Sky TV has implemented price increases for 14 years in a row.

In the 12 month period ending 31 December 2015, 81% of Sky TV's revenue was generated from its traditional subscription services. The remaining 19% predominantly comprised the sale of Sky TV's services to commercial premises (i.e. hotels, pubs etc), advertising and other services such as Pay Per View, *WATCH* magazine and installation income. The subscription revenue for residential services is primarily derived from basic content packages. Overall revenue by product and service for the 12 months ended 31 December 2015 is summarised below:



Source: Sky TV

5.3 Financial Performance

The financial performance of Sky TV for the six years ended 30 June 2015 is shown in the following table:

Sky TV – Historical Financial Performance ($ millions)						
	Year ended 30 June					
	2010	2011	2012	2013	2014	2015
Residential	606.7	648.4	682.3	726.3	744.9	760.0
Other subscription revenue	50.0	52.1	60.8	62.0	64.5	71.2
Subscription revenue	**656.7**	**700.5**	**743.2**	**788.3**	**809.4**	**831.2**
Advertising	53.7	62.7	67.2	68.0	70.5	69.5
Installation and other revenue	31.4	33.7	32.7	28.7	29.1	26.8
Total revenue	**741.8**	**796.9**	**843.1**	**885.0**	**909.0**	**927.5**
Programming	(246.2)	(255.9)	(273.7)	(289.3)	(280.0)	(296.6)
Subscriber related costs	(99.4)	(106.8)	(104.0)	(101.5)	(104.7)	(107.1)
Broadcasting and infrastructure	(74.5)	(72.6)	(84.5)	(88.3)	(88.5)	(91.2)
Other costs	(34.2)	(39.9)	(44.9)	(52.8)	(56.8)	(52.8)
EBITDA[34]	**287.5**	**321.7**	**336.0**	**353.1**	**379.0**	**379.8**
Depreciation and amortisation	(112.5)	(125.0)	(134.1)	(134.3)	(126.1)	(119.2)
EBIT[35]	**175.0**	**196.7**	**201.9**	**218.9**	**252.9**	**260.6**
Net finance costs	(28.5)	(24.7)	(30.3)	(29.9)	(28.4)	(21.7)
Net profit before tax	**146.5**	**172.0**	**171.6**	**189.0**	**224.5**	**238.9**
Income tax expense	(43.5)	(51.7)	(48.8)	(56.8)	(63.1)	(67.1)
Net profit	**103.0**	**120.3**	**122.8**	**132.2**	**161.4**	**171.8**
Statistics						
Basic earnings per share	*22.4¢*	*30.7¢*	*31.8¢*	*35.3¢*	*42.6¢*	*44.1¢*
Dividends per share[36]	*14.0¢*	*18.5¢*	*22.0¢*	*24.0¢*	*29.0¢*	*30.0¢*
Dividend payout ratio	*53.0%*	*60.0%*	*69.0%*	*68.0%*	*68.0%*	*68.0%*
Total revenue growth	*5.1%*	*7.4%*	*5.8%*	*5.0%*	*2.7%*	*2.0%*
EBITDA growth		*11.9%*	*4.5%*	*5.1%*	*7.3%*	*0.2%*
EBIT growth		*12.4%*	*2.6%*	*8.4%*	*15.5%*	*3.0%*
EBITDA margin	*38.8%*	*40.4%*	*39.9%*	*39.9%*	*41.7%*	*40.9%*
EBIT margin	*23.6%*	*24.7%*	*23.9%*	*24.7%*	*27.8%*	*28.1%*
ARPU	$67.61	$70.45	$71.93	$75.83	$77.52	$79.54
Subscriber numbers (year end)	802,397	829,421	846,931	855,898	865,055	851,561

Source: Sky TV and Grant Samuel analysis

In reviewing Sky TV's financial performance, the following points should be noted:

- Sky TV's EBITDA grew steadily between FY10 and FY15, primarily due to subscriber and ARPU growth;
- more recently the rate of growth of revenue and earnings has slowed, due to slowing subscriber growth, and increasing programming costs;
- despite flat EBITDA, net profit and earnings per share increased in FY15 as depreciation expenses fell (as many assets became fully depreciated) and net finance charges reduced in line with a reduction in borrowings;
- depreciation and amortisation in FY15 includes a one off charge of $10.7 million relating to an asset impairment;
- subscriber related costs include the costs of servicing and monitoring equipment, indirect installation costs, sales and marketing and general administrative costs. These costs

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[34] EBITDA is earnings before net interest, tax, depreciation and amortisation.

[35] EBIT is earnings before net interest and tax.

[36] Excluding the special dividend paid in FY12 and FY13.

increased in FY15, largely due to the costs associated with marketing new business initiatives such as *NEON*;

- broadcasting and infrastructure costs include satellite lease costs, transmission and linking costs for transmitting the television signals from Sky TV's Auckland studios to other locations in New Zealand and the costs of operating Sky TV's television studios at Mt Wellington and Albany; and
- other costs include the costs associated with generating advertising revenue and overheads associated with head office and other affiliated businesses such as *IGLOO*. Other costs fell in FY15, primarily because of lower costs of sales for *IGLOO's* decoders due to lower volumes.

The forecast financial performance of Sky TV for FY16 and FY17 is shown in the table below:

Sky TV – Forecast Financial Performance ($ millions)			
	Year end 30 June		
	2015 historical	2016 forecast	2017 forecast
Residential	760.0	751.5	734.7
Other subscription revenue	71.2	78.9	91.7
Subscription revenue	**831.2**	**830.4**	**826.4**
Advertising	69.5	74.0	69.1
Installation and other revenue	26.8	22.2	24.9
Total revenue	**927.5**	**926.6**	**920.4**
Programming	(296.6)	(331.3)	(350.1)
Subscriber related costs	(107.1)	(109.0)	(109.3)
Broadcasting and infrastructure	(91.2)	(94.3)	(99.6)
Other costs	(52.8)	(66.9)	(56.0)
EBITDA	**379.8**	**325.2**	**305.4**
Depreciation and amortisation	(119.2)	(99.5)	(102.1)
EBIT	**260.6**	**225.6**	**203.3**
Net finance costs	(21.7)	(20.1)	(17.9)
Net profit before tax	**238.9**	**205.5**	**185.3**
Income tax expense	(67.1)	(57.6)	(51.9)
Net profit	**171.8**	**148.0**	**133.4**
Statistics			
Total revenue growth	*2.0%*	*(0.1)%*	*(0.7)%*
EBITDA growth	*0.2%*	*(14.4)%*	*(6.1)%*
EBIT growth	*3.0%*	*(13.4)%*	*(9.9)%*
EBITDA margin	*40.9%*	*35.1%*	*33.2%*
EBIT margin	*28.1%*	*24.4%*	*22.1%*
ARPU	*$79.54*	*$78.67*	*$78.59*
Subscriber numbers (year end)	*851,561*	*832,548*	*845,112*

Source: Explanatory Memorandum and Grant Samuel analysis

Sky TV is forecasting a decline in EBITDA in both FY16 and FY17:

- the FY16 forecast is based on eight moths actual to 29 February 2016 and forecasts for the remaining four months;
- core residential subscription revenue is projected to be marginally down, reflecting an expected reduction in the number of subscribers with ARPU remaining steady due to annual price increases, the migration of subscribers from legacy decoders to *MY SKY* decoders (from 71% at 30 June 2015 to 83% at 30 June 2017) and the loss of subscribers on low cost packages. This reduction is offset by growth in other subscription revenue which is largely driven by a projected increase in *NEON* and other OTT customers but also by price increases for Commercial customers and *SKY Music*. As a result, total subscription revenue is essentially flat;

- the increase in advertising revenue in FY16 and the decline in FY17 is largely due to the Rugby World Cup (despite the Summer Olympics in FY17);
- programming costs are expected to increase sharply, reflecting the increased competition globally for content and the new contracts that have been signed;
- subscriber costs increase marginally while broadcasting and infrastructure costs increase because of the costs associated with growth of the various on demand services; and
- one-off costs already incurred in relation to the Proposed Transaction ($10.6 million) cause a spike in corporate overheads in FY16. The FY17 forecast does not include any further costs associated with the Proposed Transaction (circa $10 million) as these are contingent.

Appendix 2 of the Explanatory Memorandum contains a more detailed description of the assumptions underlying the forecasts.

5.4 Financial Position

The financial position of Sky TV at 30 June 2015 and 31 December 2015 is summarised below:

Sky TV – Financial Position ($ millions)		
	As at	
	30 June 2015	31 December 2015
Trade and other receivables	69.5	70.1
Programme rights inventory	72.8	66.9
Trade and other payables	(184.2)	(195.0)
Income tax payable	(12.3)	(7.7)
Foreign exchange contracts	56.2	27.7
Net working capital	**2.0**	**(38.1)**
Property, plant and equipment	282.2	298.1
Intangible assets	1,442.4	1,439.3
Other non-current assets and liabilities (net)	(48.4)	(41.2)
Funds employed	**1,676.1**	**1,696.2**
Cash and deposits	17.9	36.3
Borrowings	(52.7)	(39.4)
Bonds	(298.0)	(298.3)
Interest rate swaps	(8.1)	(8.2)
Net borrowings	**(341.0)**	**(309.6)**
Net assets	**1,337.2**	**1,348.5**
Outside equity interests	(1.5)	(1.7)
Equity attributable to Sky TV shareholders	**1,335.7**	**1,346.8**
Statistics		
Shares on issue at period end (million)	*389.1*	*389.1*
Net assets per share	*$3.44*	*$3.47*
NTA[37] per share	*($0.27)*	*($0.23)*
Book gearing[38]	*20%*	*18%*

Source: Sky TV and Grant Samuel analysis

In reviewing Sky TV's financial position, the following points should be noted.

- programme rights inventory represents the cost of the content agreements Sky TV has in place where the programme is available and the rights period has commenced at balance date. Not all contracts are recognised as assets as the payment for some contracts is contingent on the event being delivered. Most of the contracts are payable in advance and the programme rights are amortised over the period to which they relate on a proportionate basis (generally not exceeding twelve months);

[37] NTA is net tangible assets, which is calculated as net assets less intangible assets.

[38] Book gearing is net borrowings divided by net assets plus net borrowings.

- net working capital (excluding foreign exchange contracts) is negative as Sky TV receives income for subscriptions on a prepaid basis (i.e. unearned subscriptions and deferred revenue);
- as at 30 June 2015 property, plant and equipment included land and buildings ($40 million), broadcasting and studio equipment ($28 million), decoders and associated equipment ($54 million) and capitalised installation costs ($90 million);
- intangible assets primarily relate to the goodwill that arose as a result of the acquisition of Sky TV by INL in 2005; and
- outside equity interests relate to Sky DMX Music Limited, in which Sky TV holds 50.5%, and Believe It Or Not Limited, in which Sky TV holds 51.0%.

Sky TV's net borrowings have fallen by $153 million from 30 June 2010 to 31 December 2015. As at 31 December 2015, Sky TV was conservatively geared, with net borrowings of approximately $310 million:

Sky TV – Financial Performance ($ millions)

	As at 30 June						31 December
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2015**
Cash and cash equivalents	(25.6)	(11.4)	(27.9)	(20.7)	(19.6)	(17.9)	(36.3)
Interest rate derivatives	16.1	16.0	23.9	12.6	2.7	8.1	8.2
Borrowings	274.0	219.9	273.8	284.8	89.7	52.7	39.4
Bonds	198.1	198.4	198.7	199.0	297.5	298.0	298.3
Net borrowings	**462.6**	**422.9**	**468.5**	**475.7**	**370.3**	**341.0**	**309.6**
Statistics							
Interest cover	*5.7*	*7.8*	*7.6*	*7.5*	*9.3*	*12.0*	*11.8*
Net debt / EBITDA	*1.6*	*1.3*	*1.4*	*1.4*	*1.0*	*0.9*	*0.8*

Source: Sky TV and Grant Samuel analysis

Net borrowings consist principally of bonds and a syndicated loan facility:

Sky TV – Net Borrowings at 31 December 2015 ($ millions)

Facility	Facility Size / Face Value	Carrying amount	Term/Maturity
Syndicated loan facility	250.0	39.4	July 2020
Bond A	200.0	199.7	October 2016
Bond B	100.0	98.6	March 2021
Total interest bearing liabilities	**550.0**	**337.7**	
Cash and short term deposits		(36.3)	
Interest rate swaps (net)		8.2	
Net borrowings		**309.6**	

Source: Sky TV and Grant Samuel analysis

On 16 October 2006, Sky TV issued bonds with a face value of $200 million ("Bond A") and a nominal interest rate of 3.38%. The bonds mature on 16 October 2016. On 31 March 2014, Sky TV issued bonds with a face value of $100 million ("Bond B") and a nominal interest rate of 6.25%.

5.5 Cash Flow

Sky TV's cash flows over the last six years are summarised below:

Sky TV – Cash Flow ($ millions)						
	Year ended 30 June					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
EBITDA	287.5	321.7	336.0	353.1	379.0	379.8
Other adjustments	4.3	(12.9)	3.7	10.7	6.4	5.4
Movement in working capital	(1.2)	7.9	11.4	13.4	(6.1)	(15.8)
Capital expenditure	(139.0)	(135.0)	(136.9)	(82.4)	(93.0)	(115.5)
Operating cash flow	**151.7**	**181.6**	**214.3**	**294.8**	**286.3**	**253.8**
Net interest paid	(33.2)	(25.6)	(30.3)	(29.9)	(28.9)	(22.8)
Tax paid	(20.0)	(20.0)	(48.8)	(56.8)	(45.1)	(63.7)
Free cash flow	**98.4**	**136.0**	**135.2**	**208.2**	**213.2**	**167.4**
Dividends paid	(58.3)	(60.0)	(185.4)	(225.1)	(112.8)	(131.1)
Business acquisitions	-	(13.4)	-	-	(0.8)	-
Other	0.1	0.1	13.1	-	(0.8)	-
Net cash generated (used)	**40.0**	**62.5**	**(37.1)**	**(16.8)**	**97.9**	**129.1**

Source: Sky TV and Grant Samuel analysis

In reviewing Sky TV's cash flow, the following points should be noted:

- in FY12 and FY13, Sky TV paid substantial special dividends to its shareholders; and
- Sky TV's capital expenditure primarily relates to the purchase of decoders, installation costs and production and content delivery assets:

Sky TV – Capital Expenditure ($ millions)						
	Year ended 30 June					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Subscriber equipment	40.5	44.6	57.4	22.9	20.6	22.8
Installation costs	62.0	50.9	48.9	40.2	36.9	29.7
Other	36.5	39.5	30.6	19.3	35.5	63.0
Capital expenditure	**139.0**	**135.0**	**136.9**	**82.4**	**93.0**	**115.5**

Source: Sky TV

Installation costs fell in FY15 as there was a higher percentage of decoder only installations as opposed to installations of both a decoder and a satellite dish. Other capital expenditure in FY15 included a $17 million investment in software to enable the *MY SKY* decoder to connect to the internet.

The main features of the historical cash flows are rising gross cash flows and decreasing capital expenditure leading to strong growth free cash flow generation and a significant reduction in net borrowings (despite the special dividends).

5.6 Capital Structure and Ownership

Sky TV has 389,139,785 ordinary shares on issue. At 20 May 2016, there were 7,740 registered shareholders. The top 20 registered shareholders accounted for approximately 84% of the ordinary shares on issue and are principally institutional nominee or custodian companies. Sky TV's substantial shareholders account for approximately 37% of the ordinary shares on issue:

Sky TV – Substantial Shareholders

	Shares (millions)	%
Perpetual Limited	51.4	13.2%
Lazard Asset Management	36.6	9.4%
Blackrock, Inc	32.3	8.3%
Commonwealth Bank of Australia	23.4	6.0%
Total	**143.8**	**37.0%**

Source: NZX (based on lodged substantial shareholder notices)

5.7 Share Price Performance

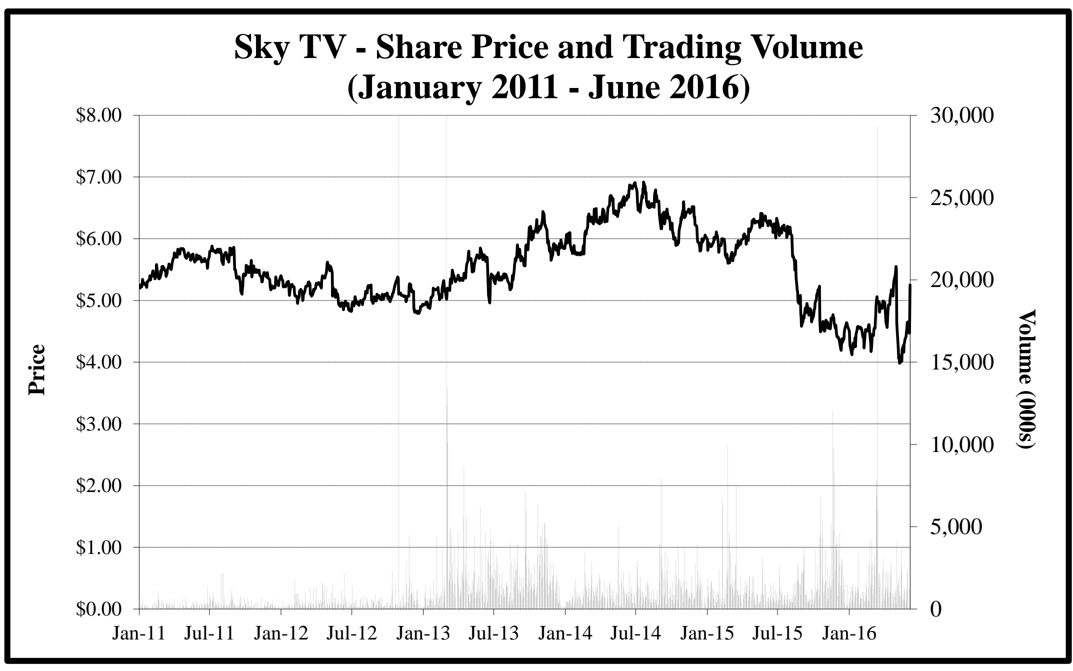
A summary of the price and trading history of Sky TV on the NZX since 1 January 2011 is set out below:

Sky TV – Share Price History

	Share Price ($)			Average Weekly Volume (000s)	Average Weekly Transactions (000s)
	High	Low	Close		
Year ended 31 December					
2011	5.88	5.10	5.30	1,287	7,169
2012	5.62	4.79	4.90	3,035	15,462
2013	6.44	4.87	5.84	12,896	69,292
2014	6.92	5.74	6.04	5,479	34,647
2015	6.41	4.19	4.59	7,526	39,845
Quarter ended					
31 December 2015	5.23	4.19	4.59	12,231	56,504
31 March 2016	5.06	4.12	4.98	10,296	48,421
Month ended					
31 October 2015	5.23	4.49	4.54	10,496	50,081
30 November 2015	4.77	4.50	4.55	15,283	71,328
31 December 2015	4.64	4.19	4.59	10,914	48,103
31 January 2016	4.58	4.12	4.57	4,839	21,218
29 February 2016	4.61	4.23	4.31	5,244	23,626
31 March 2016	5.06	4.17	4.98	20,806	100,419
30 April 2016	5.33	4.56	5.33	6,714	33,160
31 May 2016	5.55	3.98	4.50	7,044	30,697

Source: Bloomberg

The following graph illustrates the movement in the Sky TV share price and trading volumes since January 2011:



Source: Bloomberg

From 2011 to 2013, Sky TV's shares generally traded in the range $5.00-6.00. On 4 March 2013, Sky TV announced that News Corporation was selling its 43.7% stake in Sky TV. The shares were sold to a broad range of institutional and retail investors. Following the completion of the sale, Sky TV's share price responded positively, increasing from $5.02 on 5 March 2013 to a peak of $5.85 on 31 May 2013. On 19 June 2013, Sky TV announced that it had not retained the rights to the EPL. This news was seen as significant, with the Sky TV share price falling from $5.65 on 19 June to $4.94 by 24 June. Sky TV shares rebounded following the company's announcement of its FY14 annual result (reporting net profit of $161 million, an 8% increase on the previous year), increasing from $5.33 in August 2013 to a record share price at the time of $6.44 in November 2013.

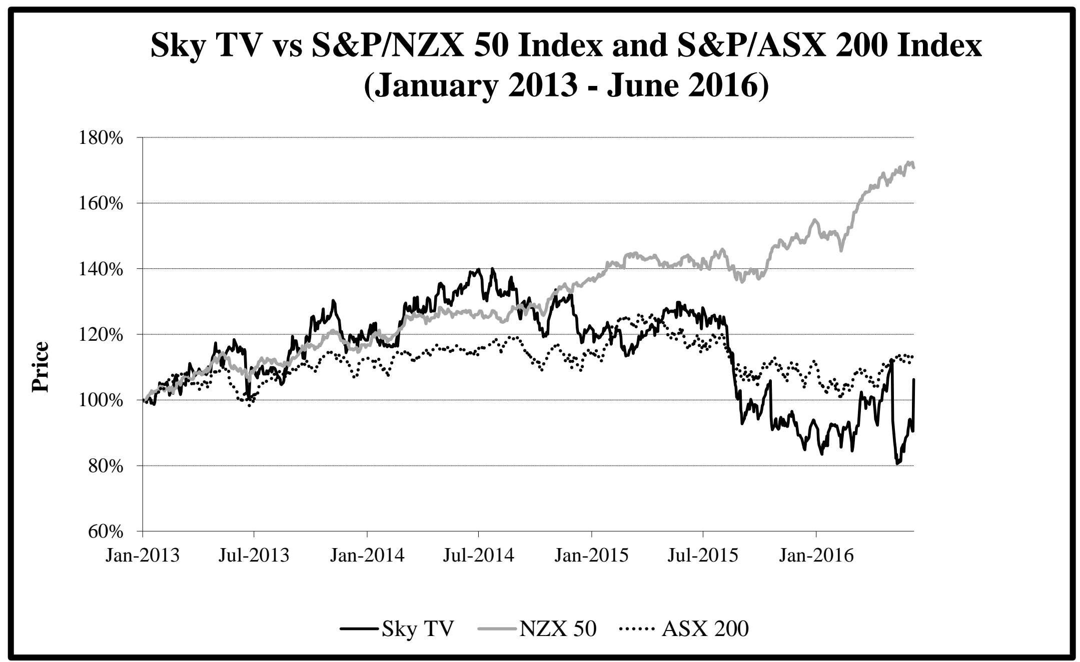
In February 2014, Sky TV announced its interim half year results (reporting a 22% increase in net profit). This was the beginning of a significant period of positive share price performance that saw the price increase from $5.77 in February 2014 to a record $6.92 in July 2014. The share price then fluctuated before the announcement in late August 2014 of the FY15 annual results (reporting net profit of $165 million, a 20% increase on the previous year). This announcement marked the beginning of a three month decline that saw the share price fall from $6.92 to $5.90 in October. During this period, Sky TV announced that it had been unsuccessful in its bid to renew its rights to the US PGA Golf, European Golf and PGA Asian Tour, although it had successfully renewed its rights to New Zealand Cricket, A League Football, New Zealand Rugby League, IPL Cricket and two ESPN sport channels.

Following a period of relative share price stability, Sky TV's share price fell from $6.16 in August 2015 to $4.48 in October 2015, notwithstanding that during this period Sky TV announced record profits for FY15 of $171 million, an increase of 6% on FY14. The fall in Sky TV's share price appeared to be the result of broader market factors rather than company specific issues, as other blue chip companies including Spark and Fletcher Building Limited experienced similar share price falls, reflecting market uncertainty driven largely by the Chinese slowdown.

The share price fell following the release of disappointing half yearly results on 27 February, to a low of $4.17. Thereafter, notwithstanding the absence of any further information from the company, the share price then increased strongly, to a high of $5.55. The share price closed at

$5.49 on 5 May 2016. Following the announcement of the following day regarding falling subscriber numbers and pressure on profitability, the share price fell dramatically, dropping by almost 30% and closing at $3.98 on 13 May 2016. Again notwithstanding the absence of any public releases from Sky TV, the share price then rose steadily, closing at $4.47 on 7 June 2016. Following the announcement of the transaction on 9 June 2016, the share price jumped, closing at $5.25 on 9 June 2016.

The following graph illustrates the performance of Sky TV shares since January 2013 relative to the S&P ASX 200 index and S&P NZX 50. As can be seen, Sky TV has significantly underperformed relative to the broader New Zealand market since September 2014:



Source: Bloomberg

6 Valuation of Sky TV

6.1 Summary

Grant Samuel has valued the equity in Sky TV in the range $1,926-2,126 million which corresponds to a value of $4.95-5.46 per share. The valuation is summarised below:

Sky TV – Valuation Summary ($ millions)			
	Report Section Reference	Value Range	
		Low	High
Business operations	6.2 / 6.3	2,300	2,500
Other assets and liabilities	6.4	-	-
Adjusted net borrowings	6.5	(374)	(374)
Value of equity		**1,926**	**2,126**
Number of issued shares (millions)		389.1	389.1
Value per share		**$4.95**	**$5.46**

Sky TV has been valued by estimating the market value of its business operations (on a "control" basis) and adding the realisable value of non-trading assets/liabilities and net borrowings. The value for the business operations has been estimated on the basis of fair market value as a going concern, defined as the maximum price that could be realised in an open market over a reasonable period of time assuming the potential buyers have full information.

The valuation represents Grant Samuel's assessment of the full underlying value of Sky TV assuming 100% of the company was available to be acquired and includes a premium for control. The value exceeds the price at which, based on current market conditions, Grant Samuel would expect Sky TV shares to trade on the NZX in the absence of a takeover offer. Shares in a listed company normally trade at a discount of 15-25% to the underlying value of the company as a whole (but this discount does not always apply).

The value attributed to Sky TV's business operations of $2,300-2,500 million represents an overall judgement having regard to a number of valuation methodologies and parameters, including capitalisation of earnings or cash flows (multiples of EBITDA, EBITA[39]/EBIT and EBITDA-Capex) and DCF analysis. A general discussion of valuation methodologies is set out in Appendix 1. The objective is to determine values that are consistent both with the output of the DCF analysis (see Section 6.2) and fit with the market evidence as to multiples (see Section 6.3).

The valuation reflects the particular attributes and risks of Sky TV's business. These are discussed in more detail in Section 6.3.

The valuation range represents the following premiums over recent Sky TV share prices:

Sky TV – Implied Premiums			
Date/Period	Price/VWAP	Implied Premium	
		Low	High
Closing price on 7 June 2016	$4.47	10.7%	22.1%
One week VWAP ending 7 June 2016	$4.59	7.7%	18.8%
One month VWAP ending 7 June 2016	$4.25	16.4%	28.4%
Three months VWAP ending 7 June 2016	$4.78	3.5%	14.2%

39 EBITA is EBIT adding back amortisation of customer bases and other intangible assets resulting from acquisitions as well as one-off impairments.

In view of the recent volatility of the Sky TV share price, the implied premiums should be treated with extreme caution.

Sky TV shares closed at $4.60 immediately before the release of Sky TV's half yearly results on 26 February 2016. Following the release of the half yearly results on 27 February 2016, the share price fell to a low of $4.17. In the absence of any further information from the company, the share price then increased strongly, to a high of $5.55. The share price closed at $5.49 on 5 May 2016. Following the announcement of the following day regarding falling subscriber numbers and pressure on profitability, the share price fell significantly, closing at $3.98 on 13 May 2016. Thereafter, again notwithstanding the absence of any further public releases from Sky TV, the share price rose steadily, closing at $4.47 on 7 June 2016. Following the announcement of the transaction on 9 June 2016, the share price jumped, closing at $5.25 on 9 June 2016. Given this share price performance, Sky TV's share price (and the implied premiums) provide limited guidance as to underlying value.

In any event, it could be argued that, in more settled circumstances, a relatively modest premium for control would be expected for Sky TV given:

- Sky TV's historically high dividend payout ratio of close to 70% of net profit after tax which historically has helped underpin the share price; and
- the limited scope for direct cost synergies for potential acquirers given Sky TV's position as the only significant pay television operator in the New Zealand market. This means there are no "in market" synergies as other pay television operators will be based overseas with limited potential to eliminate operating costs. For acquirers from within New Zealand but with complementary activities (e.g. telecommunications companies) operating cost savings will inevitably be limited except in special cases.

6.2 Value of Business Operations – DCF Analysis

Model Overview

The DCF model forecasts nominal ungeared after tax cash flows from 1 May 2016 to 30 June 2020, a period of just over four years, with a terminal value calculated to represent the value of cash flows in perpetuity. Discount rates (weighted average cost of capital) in the range 8-9% have been used together with a terminal value growth rate of 1.5% per annum. The rationale for selection of the discount rate is set out in Appendix 2. A corporate tax rate of 28% has been assumed (applied to EBIT based on forecast depreciation for tax purposes). After discussion with management, Grant Samuel has assumed that terminal capital expenditure is equal to the average annual spend over the ten years ending 30 June 2020 (equivalent to 10.6% of terminal year revenue), and that terminal depreciation and amortisation equates to terminal capital expenditure.

The DCF model has been constructed using outputs from the Sky TV corporate long term model, which has discrete assumptions for the key drivers of the business including net customer gain across Sky TV's range of products, penetration of optional packages, pricing for basic, movies and sport packages, programming costs, other operating costs and capital expenditure.

The DCF model incorporates around four years of explicitly forecast data with value beyond the forecast period captured through a terminal value. While a longer term forecast model would be preferable, Grant Samuel believes that the somewhat limited period of the DCF model is still useful for analytical purposes as management has indicated that, given the maturity of the business, it does not foresee differential trends in model parameters from 2020 onwards that could not be captured through a single terminal growth rate beyond the forecast period.

Core Assumptions

The DCF analysis considers a number of different scenarios. Scenario A has been developed by Grant Samuel as its initial case. It utilises management's long range plan as a starting point but

incorporates certain different assumptions to reflect Grant Samuel's judgement on these issues. It assumes:

- business as usual in current economic conditions;
- declining customer base for "Big Sky" (satellite and *MY SKY* customers): 20,000 in FY17 and 5,000 annually thereafter, equating to an average decline of 1.2% over the period FY16 to FY20, with the majority of this decline stemming from satellite subscribers, resulting in an increase in *MY SKY* users as a percentage of Big Sky customers increasing from 77% to 90% over the period FY16 to FY20;
- increasing customer base for other products (including OTT products) with approximately 20% annual growth over the period FY16 to FY20;
- ARPU increase for Big Sky customers of 2.8% per year on average over the period FY16 to FY20 driven by changes in the penetration of sports packages (up), movie packages (down) and moderate price increases. Another contributing factor to the increase in ARPU is the assumption that the declining customer base stems mainly from lower ARPU satellite customers;
- Sky TV's largest expenses relate to programming. Sky TV's costs for programming rights and associated costs are forecast based on existing and planned contracts with content owners;
- other costs such as broadcasting and infrastructure, advertising, sales and marketing, subscriber management and corporate are forecast on a case by case basis;
- cost of inflation of 2% per annum; and
- Sky TV's capital expenditure is forecast based on the required spend for identified new projects, new installations and new decoders.

Grant Samuel has overlaid the following assumptions on Sky TV's latest projections:

- foreign exchange rates of NZ$1 = US$0.70 and NZ$1 = A$0.89;
- unidentified potential cost savings associated with programming that have been included in the forecast cash flows have been removed; and
- corporate costs associated with Sky TV being a public company have been removed as they are available to any potential acquirer;
- adviser and other costs relating to the current transaction have been removed.

Scenario A produces NPVs in the range $2,360-2,709 million.

Sensitivity Analysis

Grant Samuel has analysed Scenario A to examine the sensitivity of the NPV to changes in the following variables:

- discount rate;
- terminal growth rate; and
- foreign exchange rates.

Sensitivities to discount rate and terminal growth rate can be seen in the table below:

Sky TV – NPV Analysis ($ millions)			
Discount rate	**Terminal Value Growth Rate**		
	1.0%	**1.5%**	**2.0%**
8.0%	2,547	2,709	2,899
8.5%	2,383	2,522	2,683
9.0%	2,239	2,360	2,498

The terminal EBITDA multiples implied by varying the discount and terminal value growth rates can be seen below:

Sky TV – Implied Terminal EBITDA multiples (times)			
Discount rate	**Terminal Value Growth Rate**		
	1.0%	**1.5%**	**2.0%**
8.0%	7.4	8.0	8.6
8.5%	6.9	7.4	8.0
9.0%	6.5	6.9	7.4

The NPV is also relatively sensitive is sensitive to changes in foreign exchange assumptions, with a change in assumptions of +/- 5c in both the NZ$/US$ and NZ$/A$ exchange rates resulting in NPV impacts of +4% and -5%.

Alternative Scenarios

As with any long term projections, there are inherent uncertainties about future events and outcomes and, as shown above, small changes in certain assumptions can have disproportionate impacts on the calculated values. The DCF model is based on a large number of assumptions which are subject to significant uncertainty, many of which are outside the control of Sky TV, including:

- economic conditions;
- exchange rates;
- competitor behaviour;
- changes in consumer entertainment preferences;
- technological change; and
- the threat of new market entrants.

As a result of these uncertainties, there is a wide range of potential outcomes that could occur, both positive and negative (and an even greater number of possible combinations of those outcomes). Accordingly, Grant Samuel has considered a number of scenarios that analyse the impact of possible variations in some of the factors outlined above.

Each scenario assumes as a starting point that the projection for FY17 in Scenario A will be achieved. Longer term assumptions have been made by Grant Samuel with reference to Sky TV's strategic plan following discussion with Sky TV management. The analysis focuses on changes to the Big Sky services as this has the most significant impact on value. A description of each scenario is outlined in the table below:

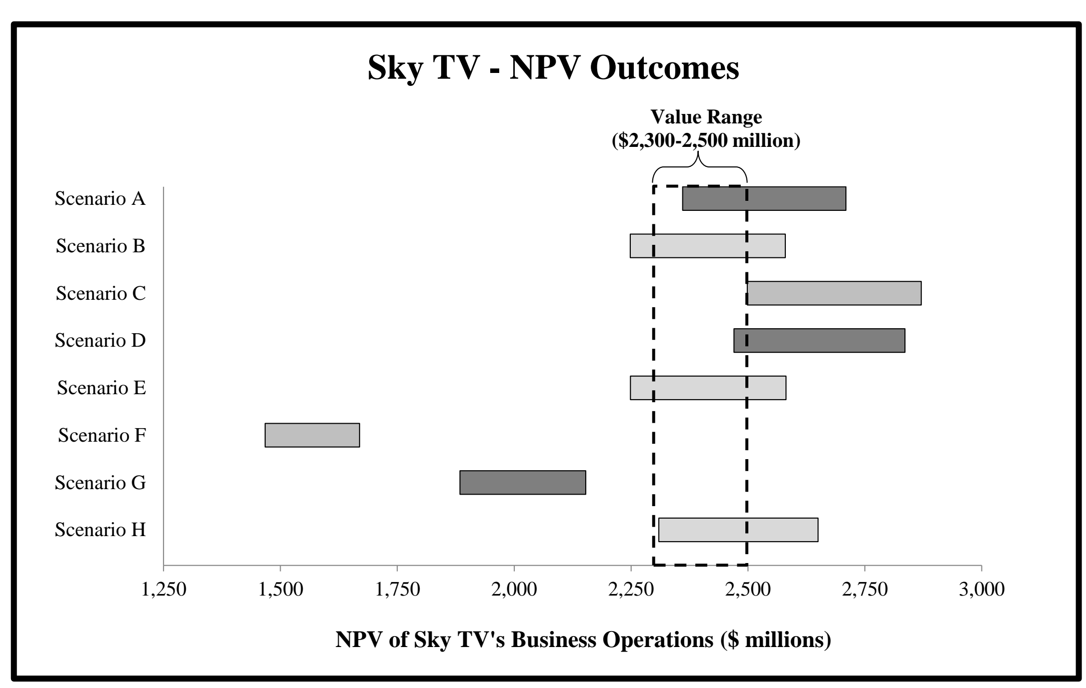
Sky TV – DCF Scenarios	
Scenario	**Description**
Scenario A	As described above
Scenario B	As per Scenario A with an additional 25,000 Big Sky customers lost in FY17
Scenario C	As per Scenario A with no net gain in Big Sky customers beyond FY16
Scenario D	As per Scenario A with the number of Movie and Sports package subscribers assumed to be 10% and 5% higher respectively than those forecast in Scenario A (resulting in ARPU growth of 3.3% per annum)
Scenario E	As per Scenario A with the number of Movie and Sports package subscribers assumed to be 10% and 5% lower respectively than those forecast in Scenario A (resulting in ARPU growth of 2.4% per annum)
Scenario F	As per Scenario A with a 10% price decrease for core products (basic, sport and movies) in FY17 and no price increases thereafter
Scenario G	As per Scenario B with no price increases for FY18 onward
Scenario H	As per Scenario A with an additional 25,000 Big Sky customers lost in FY17

The alternative scenarios do not, and do not purport to, represent the entire range of potential value outcomes for Sky TV's business operations. They are simply theoretical indicators of the changes in NPVs derived from different sets of assumptions. In this regard, the NPV outcomes show a relatively wide range across the different scenarios, highlighting the sensitivity to relatively small changes in assumptions.

Moreover, the scenario analysis does not fully take into account the operational flexibility that management has to react to changes in markets in which Sky TV operates. For example, movements in subscriber numbers can be managed by changes in marketing strategy and sales channels, by offering discounts, through new promotions or enhancing product offerings and there would also undoubtedly be a response in managing operating costs.

NPV Outcomes and Value Range Selection

Grant Samuel's selected value range of $2,300 to 2,500 million for Sky TV's business operations reflects a subjective balancing of the scenarios and a view that the appropriate discount rate to apply is 8-9%. The NPV outcomes are depicted diagrammatically below:



The range of NPVs produced by the scenarios is wider than the value range Grant Samuel has placed on Sky TV's business operations of $2,300 to 2,500 million. Grant Samuel has considered the outcome of all of the scenarios in determining its value range for Sky TV's business operations. Scenarios F and G can be considered as extreme cases but they do convey the potentially dramatic impact on value if pricing of the core service has to be constrained or reduced. In Grant Samuel's opinion, the better approach is to focus on the other cases which are more in the nature of business as usual, albeit factoring in some continual fall of the subscriber base. However, the risks are on the downside and, in view of the recent deterioration in subscriber numbers, the potential impact of emerging OTT competition and the expected continued upward pressure on programming costs, the selected range is weighted towards the more pessimistic cases.

Taking these factors into account, Grant Samuel believes that the values produced by the DCF analysis support a range of values for Sky TV's business operations of $2,300 to 2,500 million.

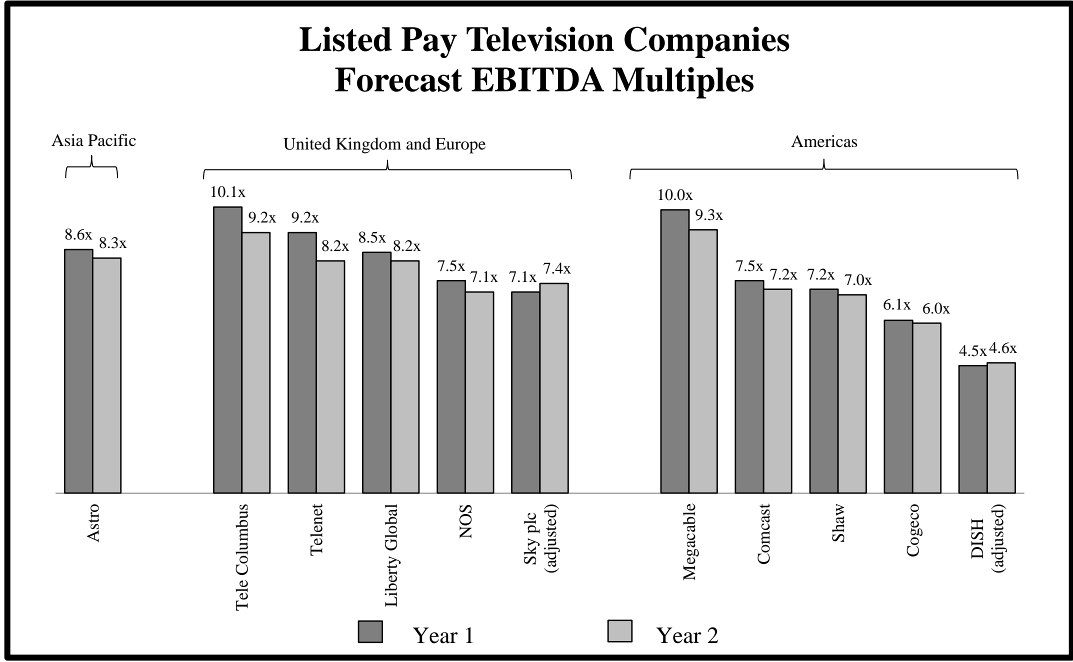
6.3 Value of Business Operations – Multiples Analysis

Grant Samuel's selected value range has been reviewed having regard to multiples of EBITDA, EBITA, EBITDA-Capex and Value per Subscriber for comparable listed companies and for transactions involving pay television businesses.

Sharemarket Evidence

Appendix 3 contains an analysis of the earnings multiples implied by the share prices as at the end of April 2016 for a selection of listed pay television businesses.

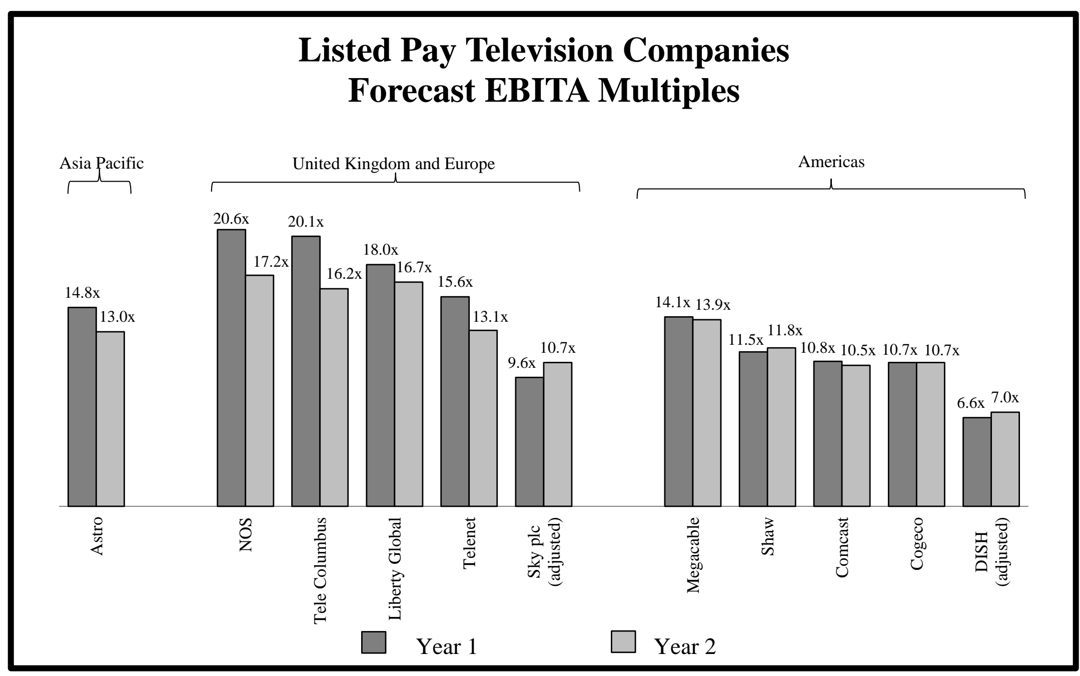
The following charts summarise the forecast trading EBITDA and EBITA multiples:



Source: Grant Samuel analysis (refer to Appendix 3)

Notes: Multiples shown for:

- Sky plc exclude the impact of Sky Deutschland;
- DISH exclude the impact of non-revenue generating spectrum assets; and
- Tele Columbus are relatively high reflecting the acquisitions of pepcom and PrimaCom in late 2015 and that the full synergy run rate is not expected until forecast year 3.



Source: Grant Samuel analysis (refer to Appendix 3)
Notes: Multiples shown for:
- Sky plc exclude the impact of Sky Deutschland;
- DISH exclude the impact of non-revenue generating spectrum assets; and
- Tele Columbus are relatively high reflecting the acquisitions of pepcom and PrimaCom in late 2015 and that the full synergy run rate is not expected until forecast year 3.

The following factors are relevant to consideration of the comparable listed company multiples:

- the multiples are based on share prices and therefore do not include a premium for control;
- Forecast Year 1 is the year ending 31 December 2016 for most of the data set. Forecast Year 2 is the year ending 31 December 2017;
- the data set excludes:
  - several large United States businesses – Time Warner Cable, Inc. ("Time Warner Cable"), Charter Communications, Inc. ("Charter") and Cablevision Systems Corporation ("Cablevision") each of which are in the middle of takeover or merger transactions; and
  - operators in certain other markets (e.g. Japan) because of structural or other differences that impact on the usefulness of their market parameters as benchmarks;
- the industry can be segmented into two subgroups – cable network operators and satellite broadcasters (although there is an increasing level of overlap). Apart from Sky TV (which also has some cable distribution through its relationship with Vodafone NZ), the other satellite broadcasters are:
  - Astro Malaysia Holdings Berhard ("Astro"), the largest pay television business in Malaysia;
  - Sky plc which operates in the United Kingdom, Ireland, Italy and Germany and is arguably the world's leading satellite broadcaster;
  - DISH which is the third largest pay television business in the United States; and
  - Liberty Global and NOS GPS SA, both of which utilise a mix of cable and satellite. Liberty Global operates primarily across a number of European markets (including the United Kingdom) while NOS GPS SA is based in Portugal;

The segmentation between cable and satellite has an impact on relative capital intensity. Most cable operators (including all of the above listed operators) own their own cable which can involve higher levels of capital expenditure over time depending on the stage of any rollout or upgrade programs (e.g. analogue to digital conversion). In contrast, the satellite broadcasters except for DISH lease their transmission infrastructure. Accordingly, the relativities of capital expenditure to revenue and EBITDA are important drivers of differences in multiples;

- there are significant differences between the key attributes of the markets in which each company operates including:
  - the extent of competition from other pay television providers;
  - the intensity of competition from OTT service providers;
  - the strength of competition from free-to-air television;
  - levels of pay television penetration;
  - constraints on access to programming (e.g. anti-siphoning rules for major sport);
  - the type of programming offered (e.g. basic or premium); and
  - regulatory regime.

  For example:
  - in Germany, cable operators operate primarily on a regional basis and, therefore, to a large extent do not compete directly with each other (although they do compete with Sky plc). In contrast, in the United Sates the operators generally face intense competition from other cable operators as well as DISH;
  - OTT services are highly developed in the United States but, at this stage, are more limited in parts of Europe;
  - free-to-air television is a strong competitor in the United States[40], the United Kingdom, Germany and Italy but is arguably weaker in some other markets;
  - anti-siphoning laws (which primarily relate to access to major sporting events) exist in the United Kingdom and the European Union as well as Australia (not included in the data set). In the United States, some sports such as NFL impose their own anti siphoning rules that limit broadcasting of home games and require some degree of free-to-air broadcasting; and
  - operators such as Kabel Deutschland[41], DISH and Megacable Holdings SAB de CV ("Megacable"), which operates across Mexico, focus on low cost basic services while operators such as Sky plc put considerable emphasis on premium services;
- almost all the companies (including satellite broadcasters such as Sky plc) also offer fixed line internet and voice services, to a greater or lesser extent, and some also offer mobile services. For the cable companies, these are core services and can represent a significant element of their revenue and earnings as well as being a critical part of their marketing and retention strategies (through triple or quad play bundling). Satellite broadcasters need to utilise third party cable infrastructure to provide these additional services. Sky plc's service operates on the BT Openreach network and is a significant part of its business. Sky plc is now one of the two largest broadband providers in the United Kingdom and over one third of its television customer base also take the broadband and voice service. In addition, Sky plc has begun investing in rolling out its own fibre network infrastructure to homes in selected cities (in joint venture) and is planning to offer mobile phone services. In contrast, Astro and DISH do not have a meaningful internet or telecommunications offering;

[40] This does not apply uniformly across the United States. In many regional areas, local cable companies developed to distribute free-to-air signals that did not reach these communities through terrestrial transmission towers.

[41] Kabel Deutschland is a 76.57% listed subsidiary of Vodafone Group which was listed on the sharemarket until 1 April 2016.

- the industry is generally trading within a range of 6-9 times forecast EBITDA with median/average forecast multiples of around 7-8 times. EBITA multiples are much higher, typically 11-14 times in the United States but mostly over 15 times in Europe, reflecting the capital intensity of the industry. Two companies trade at much higher apparent EBITDA multiples – Sky plc and DISH. However, it should be noted that:

  - Sky plc's multiples have been impacted by its acquisition of Sky Italia S.r.l. ("Sky Italia") and Sky Deutschland AG ("Sky Deutschland"). The acquisition of Sky Deutschland, which was barely profitable, has the effect of increasing the overall average EBITDA multiple relative to Sky plc's previous market rating. If Sky Deutschland is excluded (at its acquisition cost) the EBITDA multiple declines to approximately 7.5 times, more in line with the rest of the industry, while the EBITA multiple is around 10 times. In any event, both Italy and Germany have relatively low levels of pay television penetration and provide Sky plc with significant growth potential; and

  - DISH has substantial spectrum assets that do not generate income which distorts the multiple to the extent that it is not meaningful. If these assets are eliminated the effective multiple drops to around 4.5 times EBITDA. Analysts generally value the core pay television business, which is declining and strategically challenged (through its lack of broadband), at around 5 times EBITDA.

  Another contributing factor is lower capital intensity for satellite broadcasters. Sky plc leases its satellites, and capital expenditure runs at around 35-40% of EBITDA compared to 40-60% for most of the cable operators. Astro, which trades at around 8.5 times forecast EBITDA has an even lower ratio of capital expenditure to EBITDA (circa 30%); and

- value per subscriber is a common rule of thumb used for pay television businesses. This metric is primarily influenced by the level of profit per customer which, in turn, is a function of subscription pricing (reflecting content structure, service offerings and competitive forces) and operating costs (primarily programming) both of which will be heavily influenced by factors specific to each market. However, value per subscriber is an imprecise measure as it is also influenced by the definition of subscribers reported and the extent of the non-pay television activities.

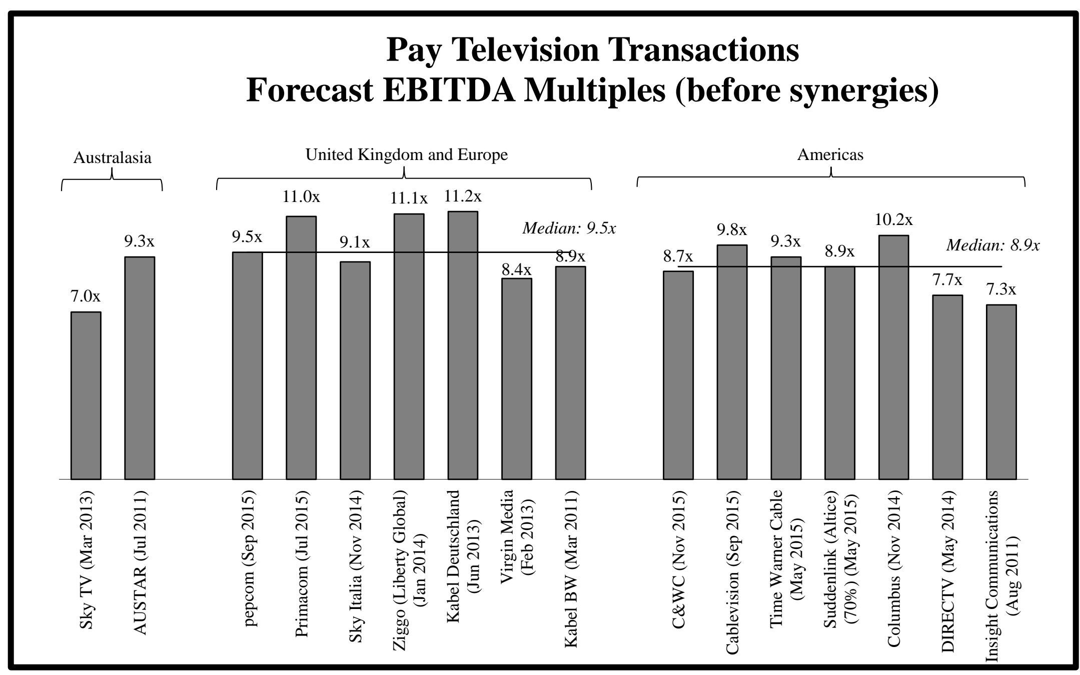
  It is evident from the data (see Appendix 3) that value per subscriber outcomes demonstrate a very wide range and it is not possible to assess a useful benchmark. Nevertheless, it can be seen that:

  - the lowest value per subscriber occurs in markets focussed on basic services and low subscription prices (e.g. Tele Columbus and Megacable); and

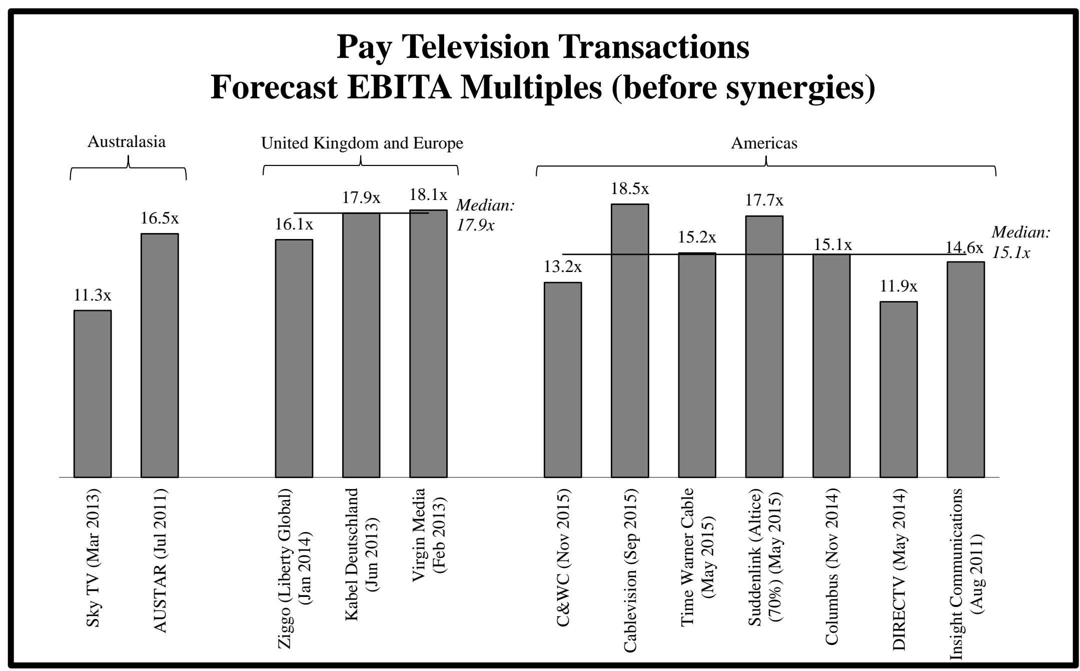
  - "full service" providers trade at higher values reflecting their higher profitability through pricing and spread of services offered;

Transaction Evidence

Appendix 3 also contains an analysis of the earnings multiples implied by recent acquisitions of pay television businesses globally. The following charts summarise the forecast EBITDA and EBITA multiples:



Source: Grant Samuel analysis (refer to Appendix 3)



Source: Grant Samuel analysis (refer to Appendix 3)

The following factors are relevant to consideration of the transaction evidence:

- the majority of the pay television businesses included in the table above utilise cable transmission, the exceptions being:
  - AUSTAR United Communications Limited ("AUSTAR"), acquired by FOXTEL;

  - Sky Italia and Sky Deutschland, acquired by Sky plc;
  - Digital+, acquired by Telefónica S.A.; and
  - DIRECTV, acquired by AT&T;
- all the cable businesses provided fixed broadband and voice services as part of their offerings to customers (and some also included mobile data and voice). In contrast, for AUSTAR, Sky Italia, Sky Deutschland and DIRECTV these services were either not offered or were an insignificant part of the business;
- the threat of competition from video services over high capacity digital networks has been around for some time but has not been a significant feature until the last couple of years with OTT aggregators such as Netflix gaining traction with customers and "cord cutting" becoming more of an issue. Accordingly, more recent acquisitions, since, say, 2013 have taken place in an environment where there are more questions about the long term profitability of traditional pay television businesses. Transactions prior to that time will not reflect these issues to the same extent;
- as discussed in relation to the listed comparables, the spread of geographies means each transaction will reflect a different set of market dynamics in terms of:
  - competition from other pay television operators, OTT service providers and free-to-air broadcasters;
  - penetration levels;
  - programming priorities, costs and access; and
  - regulatory regime;
- the only recent transactions in Australasia are:
  - News Corporation's sale of its longstanding 43.7% shareholding in Sky TV via an underwritten institutional and retail placement in March 2013. While a strategic interest, the multiples implied by this transaction (8.8 times historical EBITDA and 7.0 times forecast EBITDA) do not reflect control;
  - News Corporation's 2012 acquisition of Consolidated Media Holdings Limited, which was a listed holding company primarily for a 25% interest in FOXTEL, Australia's dominant pay television operator, and a 50% interest in FOX Sports Australia, a producer of sports related pay television programming. This transaction increased News Corporation's interest in FOXTEL to 50% and in FOX Sports Australia to 100% and implied a multiple of 8.9 times historical EBITDA (after allowing for the synergies expected from FOXTEL's acquisition of AUSTAR, see below); and
  - FOXTEL's acquisition of AUSTAR from Liberty Global[42]. The purchase price implied multiples of 9.3 times forecast EBITDA but this multiple reduces to 7.5 times when synergies are taken into account;
- Liberty Global has been the most active acquirer of pay television businesses having acquired Cable & Wireless Communications plc ("C&WC") in the Americas and Virgin Media Inc. ("Virgin Media"), Ziggo Group Holding B.V. ("Ziggo") and Kabel BW Erste Beteililgungs GmbH ("Kabel BW") in the United Kingdom and Europe. In February 2016, Liberty Global agreed to merge its Netherlands business, Ziggo, with the Netherlands business of Vodafone Group in a 50/50 joint venture. The implied multiples of forecast EBITDA for the transactions involving Liberty Global as acquirer have ranged from 8.4 to 11.1 times (before synergies);
- transactions involving Vodafone Group as an acquirer include the 2013 takeover offer for Kabel Deutschland, Germany's largest cable network, and the more recent transaction involving the merger of Vodafone Group's Netherlands operations with Liberty Global owned Ziggo. The merger implied a multiple of 11.0 times historical EBITDA for Ziggo but

[42] Liberty Global had acquired the 45.85% of AUSTAR that it did not already and then on sold 100% to FOXTEL under the terms of a definitive agreement. The sale to FOXTEL occurred at the same price as Liberty Global paid other shareholders.

this reduced to around 9 times including synergies[43]. The implied multiple for Kabel Deutschland was 11.2 times forecast EBITDA reducing to 8.0 times allowing for synergies; and

- for most of the above transactions synergy benefits were a significant feature particularly for "in market" transactions and, in a number of cases, were quantified by the acquirers. The significant difference between the raw multiples and synergy adjusted multiples is illustrated below:

Recent Pay Television Transactions – Synergy Adjusted Multiples[44] (times)		
Target	**Forecast EBITDA Multiples**	
	Unadjusted	**Adjusted[45]**
Australasia		
AUSTAR	9.6	7.5
United Kingdom and Europe		
pepcom	9.5	7.9
Primacom	11.0	8.7
Sky Italia	9.1	6.7
Ziggo (Liberty Global)	11.1	9.8
Kabel Deutschland	11.2	8.0
Virgin Media	8.4	7.9
Kabel BW	8.9	8.1
Americas		
Cablevision	9.8	6.5
Time Warner Cable	9.3	8.5
Suddenlink (Altice)	8.9	7.3
Columbus	10.2	8.0
DIRECTV	7.7	6.5
Insight Communications	7.3	5.7

Source: Grant Samuel analysis (see Appendix 3)

Some caution is warranted with this analysis as, in some instances, only cost savings or aggregate cost and capital expenditure savings were announced (sometimes with associated NPVs) while, in other instances, the NPV of potential revenue synergies was quantified. Nevertheless, the analysis indicates that the median synergy adjusted multiple of EBITDA was 8.0 times EBITDA (average 8.2) for transactions involving United Kingdom and Europe based target companies and 6.9 times for Americas based target companies (average 7.1).

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[43] Assuming 75% of the nominated annual synergies are attributable to Ziggo (reflecting relative enterprise values).

[44] Excluding transactions for which synergies were not a factor (Sky TV, Consolidated Media, Suddenlink (2012)), transactions where synergies were not quantified (C&WC) and transactions where forecast EBITDA multiples are not available or meaningful (Ziggo (Vodafone), Sky Deutschland, Digital+, Bright House).

[45] Depending on the synergies announced for each transaction, Grant Samuel has adjusted forecast earnings for cost savings and the estimated earnings impact of revenue synergies. Capital expenditure synergies have been excluded from the adjustment unless not identified separately (i.e. in some instances, aggregate cost and capital expenditure synergies were announced).

Analysis and Conclusion

Based on the adjusted earnings forecasts set out in Section 5, Grant Samuel's value range of $2,300-2,500 million implies the following multiples:

Sky TV – Implied Valuation Parameters			
	Variable[46] ($ millions)	Range of Parameters	
		Low	High
Value range ($ millions)		**2,300**	**2,500**
Multiple of underlying EBITDA (times)			
FY16 (company forecast)	337.0[47]	6.8	7.4
FY17 (company forecast)	306.6	7.5	8.2
Multiple of underlying EBITA (times)			
FY16 (company forecast)	237.4[47]	9.7	10.5
FY17 (company forecast)	205.3	11.2	12.2
Multiple of EBITDA-Capex (times)			
FY16 (company forecast)	231.8[47]	9.9	10.8
FY17 (company forecast)	198.5	11.6	12.6
Value per Subscriber	**Total Subscribers**		
31 December 2015 (actual)	851,561	$2,701	$2,936
30 June 2016 (company forecast)	832,548	$2,763	$3,003

The market evidence indicates that:

- benchmark forecast EBITDA multiples for listed pay television businesses are around 7-8 times. The most comparable businesses to Sky TV are arguably Astro, Sky plc and DISH, all of which trade at apparently higher multiples (circa 9-12 times EBITDA). However:
  - Astro's multiples of around 9 times forecast EBITDA reflect a reasonably strong growth outlook;
  - Sky plc's multiples have been distorted by the recent acquisitions, particularly of Sky Deutschland. Excluding Sky Deutschland, the multiples decline to around 7-8 times;
  - in comparison to Sky TV, Sky plc has a much stronger competitive position given its market position as one of the two largest broadband and telephone providers in the United Kingdom;
  - analysts are forecasting solid growth in Sky plc earnings over the next 2-3 years compared to the decline in earnings forecast for Sky TV in FY17; and
  - DISH's multiples are distorted by its spectrum holdings and its core business is generally valued by analysts only at around five times EBITDA; and
- the transactions show a reasonable level of consistency with most around 8-11 times EBITDA. However, once adjusted for synergies most transactions appear to fall in the range 7-8 times EBITDA (with some as low as 6 times). There is not sufficient information available to reliably assess the capital intensity (capital expenditure to revenue/EBITDA) of the target companies relative to Sky TV.

Sky TV has a number of characteristics that would contribute to a premium multiple:

- while New Zealand is a small market, the underlying economic conditions and outlook are relatively strong, certainly compared to Europe or the United States. Despite continuing low prices for agricultural commodities, GDP is expected to grow at approximately 2.5% (real)

[46] After allowing for public listed company cost savings of $1.2 million per annum.

[47] After adding back one off costs related to the Proposed Transaction.

over the next 2-3 years. New Zealand's population grew by 1.9% in FY15 and the growth rate is forecast to remain relatively high at between 1.0% and 1.5% per annum over the medium term;

- Sky TV is the only pay television operator in New Zealand of any significance. It has a very substantial residential subscriber base with a penetration rate of just under 50%. Up until FY15, core residential subscribers had continued to grow steadily;
- Sky TV has a very strong brand that is not only synonymous with pay television in New Zealand but is also widely recognised across the community;
- the competition from free-to-air television is relatively modest with two government owned channels and three privately owned channels, one of which (Prime) is owned by Sky TV;
- Sky TV has been active in developing its own OTT services (capitalising on its strong sports and drama content);
- there are no anti siphoning laws in New Zealand and Sky TV has a strong lock on the key sporting rights that are significant drivers of customer attraction and retention:

Sky TV – Key Sports Rights	
Sport	**Rights Expiry Date**
Rugby Union	2021
Rugby League	2022
Cricket	2020
Netball	2021

- the business has a very strong track record of consistent, albeit modest, growth and strong cash flow generation. In the four years to the end of FY15:
  - revenue grew by 3.2% per annum;
  - programming as a percentage of revenue was stable at around 32%; and
  - EBITDA margins were consistently approximately 40%; and
- capital expenditure requirements, while not insignificant, are relatively modest compared to many pay television businesses (reflecting in part, the use of leased satellite infrastructure). Over the past four years capital expenditure has averaged 12% of revenue and approximately 30% of EBITDA.

On the other hand, there are a number of factors that warrant considerable caution in considering multiples for Sky TV:

- Sky TV is well established and its penetration is already at relatively high levels by world standards suggesting there is limited scope to grow its core service offering;
- the effects of OTT services have started to bite in the last few months with residential subscribers declining materially in FY16 and expected to decline further in FY17 as the full impact flows through (although most of this loss has been low value subscribers). The trend from this point forward is difficult to forecast with any confidence. It is true that:
  - Sky TV has its own OTT services that have started to gain some traction and which are expected to grow strongly over the next few years offsetting subscriber declines in the traditional subscription service;
  - Sky TV's sports rights holdings provide a critical competitive advantage both in terms of its core subscription service and its OTT offerings; and
  - the long term sustainability of many of the OTT services and their attraction to customers is uncertain. While the price point and the on demand aspects are appealing:

  - individual providers tend to only cover part of the universe of key programming such as television drama series; and
  - they have very limited sports offerings, particularly live sports, which are a key driver of viewing.

  Nevertheless:

  - continued development in digital technologies is likely to lead to more competitive platforms for programme delivery to consumers;
  - the completion of the rollout of the UFB over the next three years will result in New Zealand having high speed broadband throughout the country (with a target of 80% fibre to the home). This will provide an easily accessible and functional distribution capacity to competitors (i.e. it lowers the barriers to entry);
  - the competitors and potential competitors are mostly relatively well capitalised and, in many cases, have global scale; and
  - there are clear trends away from "linear viewing" among younger age groups;

- Sky TV does not have a meaningful broadband or telephony offering (fixed or mobile) for its customers (apart from its "discount" offer through Vodafone NZ) leaving it in a strategically weak position in terms of subscriber acquisition and retention. Sky TV has considered whether or not it should enter this market but has concluded this would need to be through acquisition (of which there are few opportunities) as it has determined that it does not have the experience or expertise to build out a telecommunications business from scratch;
- while Sky TV has the key sports broadcast rights locked up for a number of years and its penetration levels are a critical attraction for the relevant codes:
  - the nature of sports rights is that rights periods are typically limited to 3-5 years so they are never long term and need to be competed for each time;
  - the competition for sports rights is intense and Sky TV is always at risk of failing to secure them next time around. Even if it does succeed, there is clearly upward pressure on the price of sports rights and this is only likely to increase;
  - the attraction of Sky TV to the sporting codes will depend on Sky TV maintaining its subscriber and penetration levels; and
  - with the advent of ubiquitous broadband and other technological developments there is increasing scope for sports to go direct to consumers and bypass aggregators such as Sky TV; and
- other content producers such as HBO and Showtime are also experimenting with going direct to customers (in the United States only at this stage). As the New Zealand market is small and remote there are attractions for global content producers to deal with an aggregator such as Sky TV rather than have to market their product direct to consumers but this disadvantage is likely to dissipate over time.

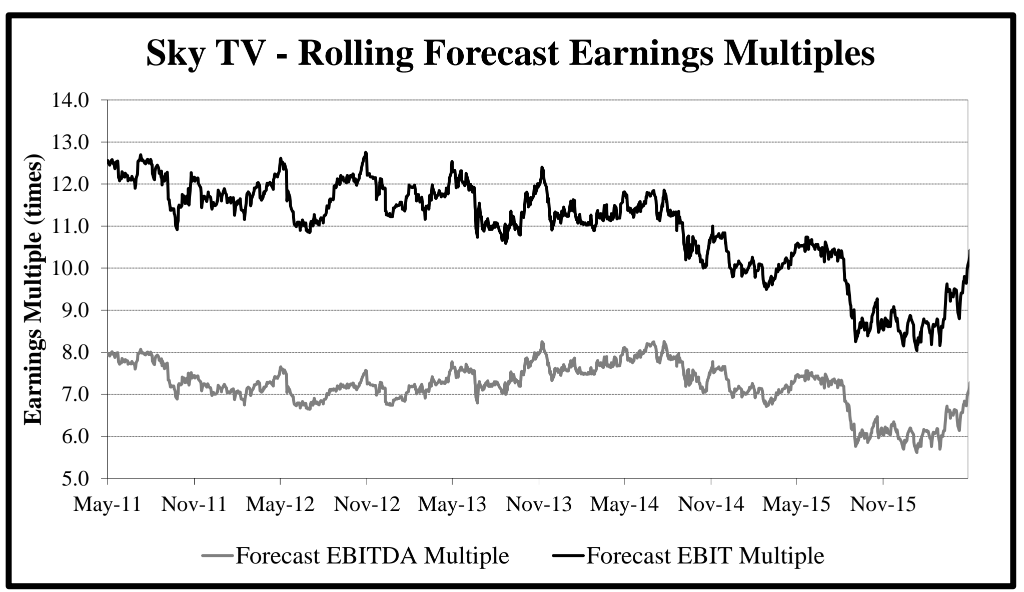
Other factors that need to be taken into account in forming a view on the appropriate multiples include the following:

- the outlook for Sky TV earnings and cash flows beyond FY17. In a rapidly changing environment there is inevitably a high degree of uncertainty. Sky TV's corporate plan projects a return to earnings growth, albeit modest, in FY18 and beyond. However, in a situation where:
  - new competition has emerged and started to gain traction;
  - volume and/or price growth will be challenging to achieve (particularly both at the same time);
  - there will be continued upward pressure on programming costs;

- Sky TV does not have an effective pathway to a competitive triple/quad play offering on a standalone basis; and
- other traditional media sectors such as print and free-to-air television, while remaining viable (although not always), have experienced steadily deteriorating margins and earnings once the new technological or competitive dynamic has taken hold,

it is appropriate to be cautious as to the multiples of current earnings that might be appropriate.

It should be noted that the market rating of Sky TV has reflected this deteriorating growth outlook over time, with its trading EBITDA multiples falling from around 7-8 times to 6 times:



Source: S&P Capital IQ

- the limited universe of potential acquirers and scope for operational synergies (in excess of public listed company cost savings):
  - there are no “in market” buyers (i.e. other pay television operators in New Zealand) that could generate significant cost synergies; and
  - overseas acquirers in the same business are relatively limited given New Zealand’s remoteness and small scale. FOXTEL is the most adjacent operator but it has shown no signs of wishing to expand outside Australia. In any event:
    - press speculation suggest that one of its two shareholders, Telstra, wants to sell down through an initial public offering; and
    - the other shareholder, News Corporation, previously had a significant shareholding (43.7%) in Sky TV but chose to sell out its holding in 2013 and has minimal business operations in New Zealand.

  Moreover, when News Corporation sold its shareholding in 2013 it presumably wished to maximise the price realised which would have been achieved through a third party takeover offer. News Corporation ultimately sold its interest through an underwritten placement at a discount to the market price which would suggest there was no corporate buyer for Sky TV at that time.

  In addition, Sky plc, the world’s leading satellite broadcaster, is 39% owned by 21st Century Fox (the demerged broadcasting arm of News Corporation) so its interest in Sky TV may be limited.

The likely acquirers are therefore telecommunications companies wanting to broaden their business base in New Zealand and strengthen their offering to customers. Realistically, given the size of Sky TV, this is probably limited to Vodafone NZ and Spark.

Nevertheless, there is clearly some potential for there to be acquirers other than Vodafone Group and there would be some operational synergies arising in such cases. Synergies are therefore not unique to Vodafone Group and should therefore be taken into account to some extent in the valuation. However:

- for any offshore pay television operators, synergies are probably limited to some programming acquisition scale benefits and shared product development;
- the opportunity for direct cost synergies for a telecommunications company is relatively small compared to the total cost base. Rather the focus is likely to be on the long term strategic benefits and the revenue opportunities. It is usually difficult to get acquirers to "pay away" substantial value for these benefits given their more intangible nature; and
- Vodafone NZ is arguably the party likely to be able to extract the most synergies given its market position and existing business relationships with Sky TV (and which are therefore unique to Vodafone Group).

While it is difficult to assess with any reliability, Grant Samuel believes a reasonable estimate of commonly available cost and "hard" revenue synergies would be in the order of $15-25 million per annum. The valuation of $2,300-2,500 million represents the following adjusted earnings multiples allowing for the midpoint of $20 million per annum:

Sky TV – Implied Valuation Parameters with Synergies

	Variable[48] ($ millions)	Range of Parameters	
		Low	High
Value range ($ millions)		**2,300**	**2,500**
Multiple of adjusted EBITDA (times)			
FY16 (company forecast)	357.0	6.4	7.0
FY17 (company forecast)	326.6	7.0	7.7
Multiple of adjusted EBITA (times)			
FY16 (company forecast)	257.4	8.9	9.7
FY17 (company forecast)	225.3	10.2	11.1

Taking all of these factors into account, Grant Samuel considers the multiples implied by the valuation of Sky TV to be appropriate.

6.4 Other Assets and Liabilities

Sky TV's other assets and liabilities have been valued at $nil and include:

- Sky TV's investment in cloud video production platform *90 Seconds* in April 2016 ($5 million) which has not been included in the FY16 or FY17 forecasts or the DCF analysis; and
- an aggregate value of $5 million (negative) for the 49.5% in SKY DMX Music Limited and 49% of Believe It or Not Limited that Sky TV does not own (i.e. outside equity interests).

48 After allowing for public listed company cost savings of $1.2 million per annum and synergies of $20 million per annum.

No value has been attributed to:

- the carried forward income tax losses relating to Igloo Limited ($12.1 million (tax effect) at 30 June 2015); and
- available imputation credits ($67 million at a 28% tax rate at 30 June 2015) as, while imputation credits may have some value to shareholders if distributed, they do not affect the underlying value of the company itself.

6.5 Net Borrowings

Sky TV's net borrowings for valuation purposes are $374 million. This amount reflects Sky TV's net borrowings as at 30 April 2016 adjusted for:

- the current market value ($110 million) of the Bond B tranche of Sky TV's listed corporate bonds ($100 million face value). The face value of Bond A ($200 million) has not been adjusted as these bonds mature and are due to be repaid on 16 October 2016 (less than five months' time);
- capitalised borrowing costs which have been eliminated as this is a non cash asset that is amortised over the life of the relevant borrowings; and
- the fair value of derivatives related to borrowings.

While net working capital and net borrowings do fluctuate intramonth and intermonth (particularly across quarters as programming rights payments accrue and are paid and as lumpy capital expenditure items arise) the balance at 30 April 2016 is considered to be reasonably in line with balances expected over the next few months.

6.6 Other Adjustments

Completion of the Proposed Transaction may not occur for some months and Sky TV will generate a cash profit over that period which, other things being equal, would increase the equity value. In addition, there is a purchase price adjustment if Sky TV's net debt at completion exceeds $330 million. No adjustment has been made for these items as:

- Sky TV shareholders will be entitled to a final dividend for FY16 (of up to 15 cents per share) and additional dividends at the rate of up to 2.5 cents per month from 1 October 2016 until completion. Vodafone Group will not be entitled to these dividends;
- cash generated by Sky TV over the period in excess of the dividends will assist in reducing net debt (currently over $350 million) towards the cap of $330 million; and
- any net effect is unlikely to be material in the scheme of the overall Proposed Transaction.

7 Profile of Vodafone NZ

7.1 Background and History

Vodafone Group entered the New Zealand market in 1998 when it acquired BellSouth New Zealand Limited, which at the time was a mobile-only telecommunications provider with approximately 130,000 customers. By comparison, Telecom NZ (now Spark) was the dominant mobile provider at the time, with approximately 480,000 customers. Vodafone NZ competed aggressively for market share and by the mid 2000's had become New Zealand's largest mobile provider (both in revenue and subscriber numbers).

Vodafone NZ's success reflected in part its decision to invest in a GSM[49] mobile network, which was being adopted by Vodafone Group in a number of countries throughout the world. Telecom NZ had invested in a CDMA network which, although considered technically superior, was not the technology of choice for the majority of telecommunications providers. GSM ultimately became the default global standard for mobile communications (with over 90% market share, operating in over 200 countries by 2014). As a result, handset manufacturers favoured the development of GSM mobile phones. Vodafone NZ was also able to leverage the buying power of Vodafone Group and get access to the latest mobile phones from global manufacturers, providing it with a clear advantage over Telecom NZ.

Vodafone NZ expanded progressively into the fixed line and ISP markets by reselling fixed services provided by Telecom NZ and via acquisitions including:

Company	Summary
ihug	Vodafone NZ acquired ihug from iiNet in 2006. At the time of the transaction Vodafone NZ had only 20% of the telecommunications market and was exclusively a mobile service provider. The acquisition of ihug transformed Vodafone NZ from a mobile phone company into a complete communications service provider, with mobile, fixed landline telephone and ISP offerings. The ihug brand was retired in 2008.
FIRST MOBILE	Vodafone NZ acquired First Mobile in 2010. First Mobile was a retail partner of Vodafone NZ, operating over 50 stores across New Zealand. The acquisition allowed Vodafone NZ to transform its retail platform.
TelstraClear	In October 2012, Vodafone NZ acquired TelstraClear for approximately $840 million. Vodafone NZ's strategic objective was to combine its number one position in the mobile market with TelstraClear's strength in the broadband, TV and enterprise markets. As a result of the transaction, Vodafone NZ became the second largest provider of fixed line services (phone and broadband) in New Zealand. At the end of March 2013, the TelstraClear brand was retired.
WXC COMMUNICATIONS	Vodafone NZ acquired WorldxChange in August 2015. WorldxChange is a New Zealand based telecommunications business delivering high reliability IP-based voice and converged services to Government and large commercial businesses. WorldxChange has developed expertise in the development of IP based services. The IP platform and internal capability that was acquired is being leveraged by Vodafone NZ to offer unified communications to its customers.

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Key events in Vodafone NZ's evolution include:

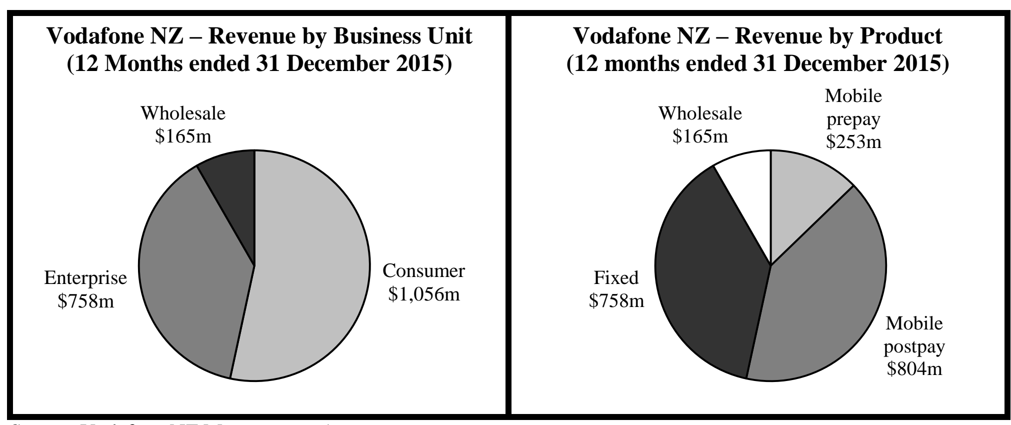
Year	Event
2005	▪ Vodafone NZ launches a 3G Network, increasing data speeds and opening up new service offerings such as mobile broadband ▪ Vodafone NZ reaches 2 million customers
2007	▪ Number portability is introduced, allowing customers to keep their existing mobile number when switching providers
2008	▪ Vodafone NZ starts its investment in unbundling the local loop, increasing its margin on fixed line broadband services ▪ Vodafone NZ is the first to offer the iPhone in New Zealand
2009	▪ 97% of New Zealand's population has access to Vodafone NZ's 3G network ▪ Sky TV partnership expands. Vodafone NZ offers free HD services to Sky TV and Vodafone NZ customers ▪ Vodafone NZ reaches 2.5 million customers
2010	▪ Vodafone NZ launches MyVodafone App for the iPhone
2011	▪ Vodafone NZ and Chorus win New Zealand Government's RBI expansion contract. Vodafone NZ is providing fixed wireless broadband to complement fixed line solutions to deliver peak downstream speeds of at least 5Mbps to 320,000 rural address points
2013	▪ Vodafone NZ launches its 4G Network (or LTE) increasing data speeds, catering for high speed mobile data for smart devices
2014	▪ Vodafone NZ confirms investment in the Tasman Global Access submarine cable

Since 1998, Vodafone NZ has grown to become the largest mobile provider and the second largest telecommunications company in New Zealand, generating approximately $2 billion in annual revenue from approximately 2.4 million mobile customers and over 0.5 million fixed line customers. The company offers a full suite of telecommunications services providing both mobile (voice, messaging and data) and fixed (broadband, phone and content) products, serving both consumer and business customers. Vodafone NZ offers television services primarily by marketing Sky TV packages.

7.2 Business Operations

7.2.1 Overview

Vodafone NZ provides mobile and fixed lines services across New Zealand utilising its extensive mobile network and fixed line infrastructure. Vodafone NZ operates an integrated business delivering services to both the consumer and enterprise markets as well as providing wholesale services to other telecommunications retailers. The following chart illustrates the proportion of revenues generated by market segment and by product offering:



Source: Vodafone NZ Management Accounts

Vodafone NZ generates its business or enterprise revenues from approximately 130,000 enterprise customers, ranging from small to medium sized enterprises to large corporate and Government customers. Vodafone NZ also generates revenue from global corporates, the relations with which are primarily managed by Vodafone Group. Vodafone NZ is a provider to the New Zealand Government under the Telecommunications as a Service ("TaaS") framework across all telecommunication services.

7.2.2 Mobile Services and Network

Services

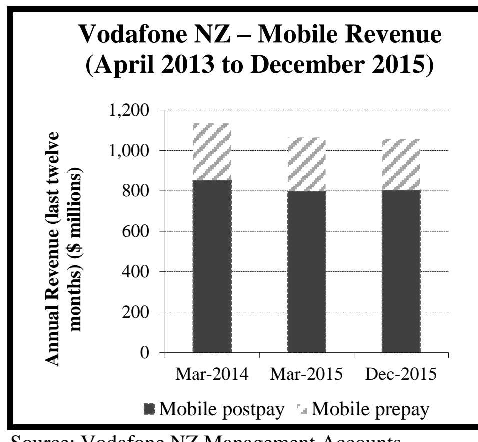
Vodafone NZ's mobile services include:

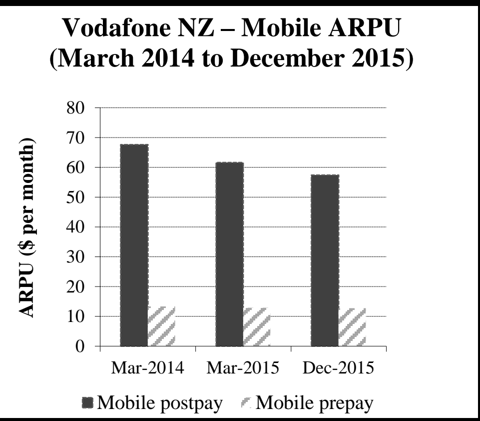
Service / Product	Description
Postpay (or On Account)	On Account contracts provide a range of bundled offerings. The On Account offerings include the base services, voice minutes in New Zealand and Australia, text messaging, and data packages. The base services can be supplemented with add-ons such as international voice minutes or data packages and other specials such as the provision of Sky TV's *NEON* service for free. Vodafone NZ's more expensive and long term On Account contracts also provide for mobile phone handset subsidies.
Prepay	Vodafone NZ offers a range of mobile services to prepay customers, with higher priced bundles providing additional services or greater value to the customer. There are no contracts and once the services have been consumed the service expires until a further prepayment is made.
Mobile Broadband	Vodafone NZ offers mobile broadband, purchased on a contract or prepaid basis. Mobile broadband can be provided via a data sim (which can be inserted into a mobile device such as a tablet) or a mobile broadband device such as a USB modem.
Mobile Devices and Accessories	Vodafone NZ sells mobile devices and accessories from a range of manufacturers including Apple and Samsung. The mobile devices are sold separately or as part of a bundle (which, depending on the contract, can be subsidised). Financing options are also available.

As an integrated communications provider the mobile services are often bundled together with other complementary services including fixed line voice, internet and television.

Vodafone NZ is the largest provider of mobile services in New Zealand and has approximately 2.4 million mobile subscribers, of whom approximately 1.4 million are prepay customers and 0.9 million are postpay. From December 2014 to December 2015, the number of mobile subscribers has remained relatively flat, with mobile competition intensifying as a consequence of aggressive marketing campaigns from Spark (including its *Skinny* offering) and 2degrees. There was a slight increase in the number of postpaid mobile subscribers and a slight decrease in the number of prepay subscribers during the period, predominatly due to the migration of subscribers from prepaid to postpaid contracts.

Despite growth in contracted subscribers, Vodafone NZ's mobile revenue has been falling steadily. Prices have been declining significantly since 2012 and in the last two years contract ARPU has fallen by 15%. Although consumer prepay ARPUs have been stable, driven by increased usage and add on purchases, prepaid revenue declined in line with falling subscriber numbers. Vodafone NZ's mobile revenue and ARPU trends since March 2014 are summarised in the table below:





Source: Vodafone NZ Management Accounts

Vodafone NZ's management believes that there are a number of strategies available to drive mobile revenue growth, including:

- progressively migrating prepay customers to postpay contracts. Transitioning consumers from prepay to contract typically increases ARPU, drives data usage and reduces churn;
- promoting Vodafone NZ's Red Share Plan, which enables family members to access data allowances of the family's main account holder for a flat monthly fee; and
- value added services such as video content.

Network

Vodafone NZ's mobile network comprises over 1,500 mobile sites, providing coverage to an estimated 98.5% of New Zealand's population. The majority of the cell sites are linked via fibre, with the remainder linked via high capacity microwave links. Vodafone NZ's management considers that the network is well equipped to handle the increasing demands of its customers (in particular the ongoing increases in data usage).

The mobile network itself has evolved from a mix of different generations of mobile technology, all of which interoperate:

- the 2G network handles mobile calls, short message service ("SMS") and Vodafone NZ's Machine to Machine services. It operates on the 900/1800MHz spectrum bands;
- the 3G ("standard 3G") network handles mobile calls, SMS, mobile internet access, wireless voice telephony, fired wireless internet access and video calls, operates on the 900/2100MHz spectrum bands;
- Dual Carrier 3G is a technology that bonds two 3G channels together to provide a faster data service. Dual Carrier 3G is available in parts of Auckland, Wellington, Christchurch and other cities and works by combining two 3G channels (or "carriers") that operate at 21 Mbps (Megabits per second) download giving a total 42 Mbps. Actual speeds will vary depending on factors such as the signal level and distance from the tower and traffic load; and
- the 4G network is a high speed mobile data connection for mobile devices such as smartphones and tablets. The 4G network provides coverage for an estimated 90% (March 2016) of the population and operates on the 700MHz, 1800MHz and 2600MHz spectrum bands.

Vodafone NZ has a strong spectrum portfolio holding spectrum positions from 700 MHz to 3,500 MHz. Vodafone NZ has deployed technology that combines bands of spectrum together to enhance its 4G performance. As additional capacity is required, spectrum that is currently being used by 2G and 3G services will be re-farmed for 4G use in line with the growth of 4G capable devices. The evolution of mobile technology will further improve the performance of the 4G network over the next four years and provide the foundation for the deployment of 5G, which is expected to be deployed early in the next decade.

7.2.3 Fixed Line Services

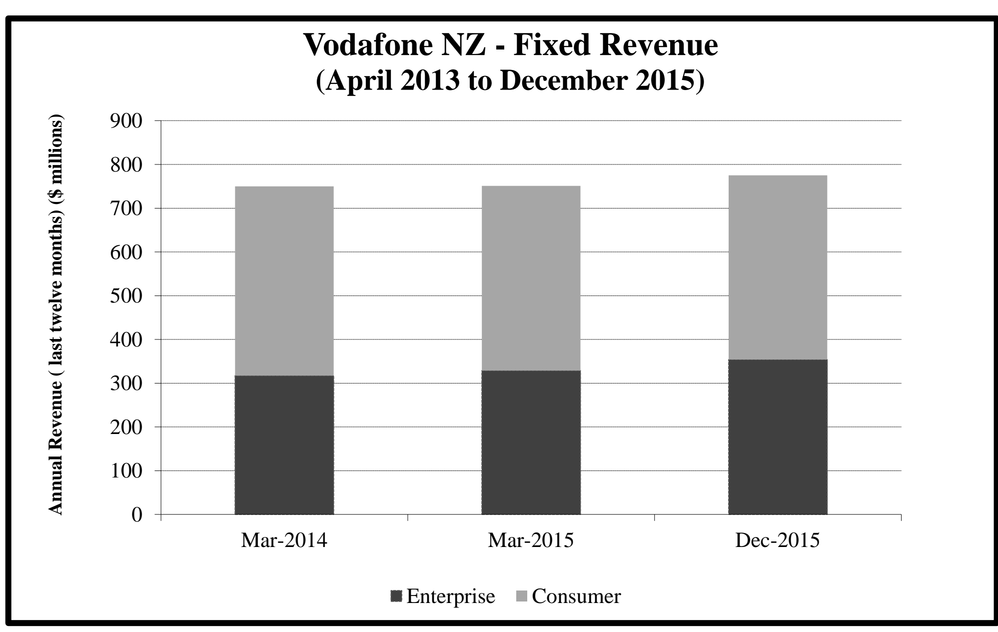
Services

Unlike mobile where it owns and operates its own network, Vodafone NZ is primarily a reseller of wholesale carriage services provided by Chorus, other LFCs and Spark Wholesale. These services utilise both the legacy copper network and the UFB. Vodafone NZ's fixed line services include:

Service / Product	Description
Consumer Broadband	Vodafone NZ offers ADSL, VDSL, HFC cable and UFB broadband bundles that can be tailored for the residential home. Bundle Options include data size, home phones, and television (through a wholesale arrangement with Sky TV). The UFB product also provides a range of speeds.
Business Broadband	Vodafone NZ offers ADSL, VDSL and UFB broadband bundles that can be tailored for businesses. Vodafone NZ offers additional features to cater for the business market including special data allowances during work hours, email and virus protection.
Fixed Voice	Vodafone NZ offers a range of fixed voice solutions using various technologies, including standard POTS though to Enterprise Grade IP telephony. Where possible, these services are bundled together with mobile services to improve the value offering and to provide integrated communication services.
Other Services	To complement the standard offerings, Vodafone NZ offers more advanced services to its business customers including call centre services, co-location, wide area networking and internet security products.

Vodafone NZ is the second largest provider of fixed line services in New Zealand. Since April 2014, its fixed line subscriber base has remained relatively constant at around 500,000 subscribers. As at 31 December 2015, Vodafone NZ had approximately 123,000 broadband customers taking Sky TV packages, some of whom were receiving television services through Vodafone NZ's own HFC cable network. These customers are primarily in the Christchurch/wider metropolitan region.

Since March 2014, Vodafone NZ's fixed revenue has fallen slightly, although ARPU has been relatively flat for the period to December 2015. While the number of enterprise customers has increased as a result of several contract wins, the number of connections has fallen because of mobile substitution for PSTN.



Source: Vodafone NZ

Vodafone NZ's management believes it can achieve fixed line revenue growth by:

- driving convergence (the effective integration of telephony, data and video entertainment services for delivery through a single network) by leveraging its mobile network and its partnership with Sky TV (even in the absence of the Proposed Transaction). Vodafone NZ will continue to actively promote convergence through cross selling and the competitive bundling of its services, with the objective of winning an increased share of the consumer's telecommunications and entertainment wallet and at the same time reducing customer churn;
- upselling customers to higher data plans on the expanding UFB in conjunction with increasing convergence penetration;
- using its existing HFC network to offer competitive On-net offerings at speeds comparable to the UFB network; and
- instituting additional service initiatives (e.g. TaaS and Unified Communications) to support a transition towards higher margins.

Network

To underpin its fixed line services, Vodafone NZ has a substantial network related infrastructure of its own:

- three independent cable routes between Auckland and Wellington;
- two independent cable routes between Wellington and Christchurch;
- connectivity to all major cities (except Gisborne);
- a local CBD fibre loop in Auckland, Wellington and Christchurch to connect businesses to the fibre backbone network;
- an HFC network in Wellington, Kapiti Coast and Christchurch. The HFC network passes approximately 200,000 homes and by the end of 2016, with the deployment of new technology, will offer performance comparable to the UFB network;
- network access to non-Vodafone NZ owned international cable on the Southern Cross network. An additional international cable will be added when the TGA cable deployment is completed;
- five international points of presence across the United States and Australia; and

- equipment in 111 Chorus exchanges.

7.2.4 Wholesale

Vodafone NZ wholesales its services primarily to New Zealand's tier two telecommunication companies, overseas telecommunication providers and IT integrators. The primary wholesale services include:

- mobile via national roaming and MVNO agreements. Vodafone NZ has had a national roaming agreement with 2degrees, which provides 2degrees customers with coverage where 2degrees does not have its own infrastructure. Vodafone NZ also has MVNO agreements with smaller New Zealand telecommunication companies. The MVNO service allows companies to resell and market mobile services under their own brands and retail packages;

- domestic and international voice and text messaging interconnect services;

- domestic bandwidth (or Domestic IP Transit), which provides customers (e.g. systems integrators) with the ability to provide local internet services to their corporate, government, SME or residential customers in New Zealand;

- international bandwidth (or International IP Transit), which provides customers with the ability to connect to the global internet;

- mobile co-location, a service that allows other network operators to put their equipment on Vodafone NZ's towers; and

- RBI services, which allow resellers to offer wireless broadband and voice services to rural New Zealand (circa 320,000 address points, equating to approximately 110,000 homes). Under the RBI, by the end of 2016, Vodafone NZ will have upgraded 387 existing cell towers and built 154 new towers in rural areas across New Zealand.

7.2.5 Sales Network

Vodafone NZ uses both internal and external sales and marketing teams. Vodafone NZ has its customer service operations located in Auckland, Wellington, Christchurch and the Philippines.

Vodafone NZ products and services can be purchased online, through the 74 branded *Vodafone* stores and kiosks and through multi-retailer outlets and supermarkets nationwide.

7.3 Financial Performance

The historical financial performance of Vodafone NZ for the five years ended 31 March 2015 is shown in the table below:

Vodafone NZ – Financial Performance ($ millions)					
	Year end 31 March				
	2011	2012	2013	2014	2015
Revenue	1,691.5	1,618.7	1,767.8	2,055.5	1,964.5
Cost of sales	(699.8)	(621.8)	(757.0)	(910.5)	(911.6)
Gross Profit	**991.7**	**996.9**	**1,010.8**	**1,145.0**	**1,052.9**
Employee benefits	(149.0)	(166.9)	(247.4)	(320.8)	(302.1)
Operating lease rentals	(57.1)	(71.8)	(81.5)	(76.3)	(81.5)
Corporate overheads and other	(246.2)	(216.3)	(186.0)	(227.2)	(202.6)
Normalised EBITDA	**539.4**	**541.9**	**495.9**	**520.7**	**466.7**
Depreciation	(145.1)	(110.7)	(159.4)	(238.8)	(244.7)
Normalised EBITA	**394.3**	**431.2**	**336.5**	**281.9**	**222.0**
Amortisation	(100.1)	(114.5)	(93.7)	(147.8)	(151.7)
Normalised EBIT	**294.2**	**316.7**	**242.8**	**134.1**	**70.3**
Internal brand charges	-	-	(23.6)	(35.9)	(34.8)
Restructuring and transaction costs	-	-	-	(4.5)	(18.3)
Related party finance costs	(89.0)	(97.4)	(116.0)	(130.6)	(137.3)
Interest revenue	19.7	20.6	17.2	10.6	11.2
Income from associates	0.3	-	(0.4)	-	(1.0)
Net profit before tax	**225.2**	**239.9**	**120.0**	**(26.3)**	**(109.9)**
Income tax expense	(73.7)	(64.9)	(64.1)	(1.6)	(10.8)
Net profit after tax	**151.5**	**175.0**	**55.9**	**(27.9)**	**(120.7)**
Statistics					
Total revenue growth	*6.1%*	*(4.3)%*	*9.2%*	*16.3%*	*(4.4)%*
Normalised EBITDA growth	*2.0%*	*0.5%*	*(8.5)%*	*5.0%*	*(10.4)%*
Normalised EBITA growth	*11.3%*	*9.4%*	*(22.0)%*	*(16.2)%*	*(21.2)%*
Normalised EBIT growth	*10.1%*	*7.6%*	*(23.3)%*	*(44.8)%*	*(47.6)%*
Gross margin	*58.6%*	*61.6%*	*57.2%*	*55.7%*	*53.6%*
Normalised EBITDA margin	*31.9%*	*33.5%*	*28.1%*	*25.3%*	*23.8%*
Normalised EBITA margin	*23.3%*	*26.6%*	*19.0%*	*13.7%*	*11.3%*
Normalised EBIT margin	*17.4%*	*19.6%*	*13.7%*	*6.5%*	*3.6%*

Source: Vodafone NZ and Grant Samuel analysis

The historical accounts have been prepared on a different basis to the one that will apply to Vodafone NZ upon acquisition by Sky TV (in particular in relation to service charges from Vodafone Group) and, accordingly, reported earnings cannot be compared directly to the forecasts set out in the Explanatory Memorandum. Nevertheless, they can provide some insight into the historical performance and trends impacting on the business.

In reviewing Vodafone NZ's financial performance, the following points should be noted:

- Vodafone NZ's historical performance is impacted by acquisitions over the past five years, most notably the acquisition of TelstraClear on 31 October 2012. The financial year ending 31 March 2013 includes five months of financial contribution from TelstraClear;
- cost of sales includes:
  - wholesale charges from Chorus and other LFCs for the use of network and infrastructure (e.g. ADSL and UFB wholesale products) and network interconnection charges. The prices charged by Chorus are largely regulated;
  - customer acquisition and retention costs, which include the costs of and revenue from the sale of handsets, installation costs and commissions. Consumer Premise Equipment

("CPE") costs such as modems and set top boxes are capitalised with the expense recognised in depreciation and amortisation; and

- direct costs which includes regulatory costs (e.g. TDL), costs related to enterprise projects and business managed services, co-location for local loop unbundling equipment and costs related to the retransmission of TV content;

- operating lease rentals relate to leased lines from Spark, mobile cell sites, corporate premises, fixed network buildings and retail stores;
- restructuring and transaction costs largely relate to the redundancy costs incurred following the acquisition of TelstraClear; and
- income from associates relates to Vodafone NZ's minority interests in Centurion GSM Limited (an entity that sells mobile communication equipment), TNAS Limited (an entity that facilitates toll free number portability) and TSM NZ Limited (an entity that specialises in mobile wallet development).

The key features of the performance of the five year period include:

- flat or declining revenues (excluding the impact of TelstraClear). In large part, this is due to increased competition notably from:
  - the entry of 2degrees into the mobile market (with Spark creating its low price *Skinny* brand in response); and
  - Spark which instituted significant price cuts in mobile during 2014.

  The result has been a significant reduction in ARPU. The New Zealand Telecommunications Forum has estimated that mobile pricing decreased by 46% over the two years to 2014 and similar trends have occurred in the fixed market. Pricing in New Zealand is now considered to be broadly comparable to pricing in other OECD countries (albeit with some exceptions such as mobile data);
- a fall in gross margins as a consequence of ARPU declines, despite reductions in some input costs;
- the effects on underlying EBITDA are less clear because of the acquisitions but in general terms it has been falling as evidenced by the sharp deterioration in EBITDA margins from over 30% in FY11 and FY12 to less than 25%; and
- to counter the weaker market environment, Vodafone NZ has been reducing costs. Employment (and corporate) costs fell in FY15 as the company instituted headcount reductions to optimise structure. Since April 2014, the number of employees has declined from 3,319 to approximately 3,000.

In order to give an indication of Vodafone NZ's financial performance under Sky TV ownership, the Explanatory Memorandum sets out the pro forma financial performance of Vodafone NZ for two years restated to end at 30 June 2014 and 30 June 2015, and the forecast years ending 30 June 2016 and 30 June 2017 (to align with Sky TV's 30 June year end). These are summarised in the following table:

Vodafone NZ – Pro Forma Forecast Financial Performance ($ millions)				
	Year end 30 June			
	2014 historical	2015 historical	2016 forecast	2017 forecast
Enterprise mobile		431.8	409.3	405.5
Enterprise fixed		330.4	338.0	363.7
Total Enterprise		762.2	747.3	769.2
Consumer mobile		624.0	655.4	662.7
Consumer fixed		424.8	430.2	445.5
Total Consumer		1,048.8	1,085.6	1,108.2
Wholesale and other		148.9	165.9	146.9
Total revenue	**2,035.6**	**1,959.9**	**1,998.8**	**2,024.3**
Interconnect and access costs		(396.5)	(385.8)	(406.0)
Direct costs		(245.7)	(261.1)	(263.3)
Sales and variable costs		(294.2)	(312.1)	(306.4)
Sales fixed costs and overheads		(480.6)	(496.9)	(480.0)
Service costs from Vodafone Group		(78.8)	(87.8)	(87.7)
Other operating costs		(19.2)	(1.7)	(1.6)
Total costs	**(1,535.6)**	**(1,514.9)**	**(1,545.4)**	**(1,545.0)**
EBITDA	**500.0**	**445.0**	**453.4**	**479.3**
Depreciation		(239.1)	(210.8)	(211.7)
Amortisation of intangibles		(131.0)	(107.9)	(85.9)
EBITA		**74.8**	**134.7**	**181.7**
Amortisation of acquired intangibles and impairments		(18.8)	(15.7)	(12.7)
EBIT	**115.6**	**56.0**	**119.0**	**169.0**
Statistics				
Total revenue growth	na	(3.7%)	2.0%	1.3%
EBITDA growth	na	(11.0%)	1.9%	5.7%
EBITA growth	na	na	80.2%	34.9%
EBIT growth	na	(51.6%)	112.6%	42.0%
EBITDA margin	na	22.7%	22.7%	23.7%
EBITA margin	na	3.8%	6.7%	9.0%
EBIT Margin	na	2.9%	6.0%	8.3%

Source: Explanatory Memorandum and Grant Samuel analysis

The assumptions underpinning Vodafone NZ's earnings forecasts are set out in Appendix 2 of the Explanatory Memorandum. An important assumption is that there is continued market improvement. Vodafone NZ's experience is that, in recent months, market conditions have improved. Accordingly, the forecasts reflect an assumed slowing in the decline in ARPUs, with some price recovery possible over the longer term through strategies to deliver enhanced value to Consumer and Enterprise customers.

The other key assumptions include:

- strong fixed line revenue growth driven by leveraging the Unified Communication platform in the Enterprise Market, and, in the consumer market, leveraging the HFC network and actively cross promoting mobile, fixed and Sky TV services;
- the maintenance of Vodafone NZ's existing mobile market share, with steady growth in the contracted customer base;
- $33 million of operational savings and $24 million of direct cost savings in FY17 are achieved through Vodafone NZ's cost out programme. The cost out programme has numerous initiatives that are estimated to deliver approximately $100 million in annualised savings by FY21. The planned operational savings in FY17 are primarily focused on:
  - simplification driven by production rationalisation and investment in BSS/OSS platforms. This will reduce IT and other operational costs by removing legacy products

from Vodafone NZ's platform, reducing the complexity with key suppliers (e.g. Chorus) and simplifying key processes (e.g. provisioning);

- fixed access optimisation through improvement of commercial terms in areas such as international bandwidth, roaming interconnect and investment in the LLU network;
- customer operations efficiencies through investment in customer service tools to reduce the cost to serve customers by reducing call volumes, improving the overall customer experience and improving the provisioning of fixed lines. The investment is also focused on an increase in the use of Vodafone NZ's self-service application; and
- continued reductions in employment costs and leveraging existing shared service operations.

The net effect is that after a sharp decline in FY15 and essentially flat earnings in FY16 there is some modest growth in revenue in FY17 (1.3%) and a more significant uplift in EBITDA (5.7%).

7.4 Financial Position

The audited balance sheet of Vodafone NZ as at 31 March 2016 is not available. The forecast pro forma financial position of Vodafone NZ as at 30 June 2016 is set out in the Explanatory Memorandum and is summarised below. The pro forma balance sheet excludes borrowings, cash and shareholders equity as Vodafone NZ will be acquired on a debt free basis. The assumptions underlying the pro forma balance sheet are set out in Appendix 2 to the Explanatory Memorandum:

Vodafone NZ – Pro Forma Financial Position ($ millions)	
	As at 1 July 2016
Trade and other receivables	244.7
Programme rights inventory	0.0
Inventories	29.4
Derivative financial instruments	0.0
Trade and other payables	(405.8)
Current provisions	(4.6)
Income tax payable	0.0
Net working capital	**(136.3)**
Property, plant and equipment	1,055.6
Investments	4.6
Intangible assets	266.9
Goodwill	159.0
Non-current provisions	(30.1)
Deferred tax	22.6
Derivative financial instruments	0.0
Funds employed	**1,342.3**

Source: Explanatory Memorandum and Grant Samuel analysis

In reviewing Vodafone NZ's financial position, the following points should be noted.

- intangible assets include the value of the radio spectrum licences, internal and purchased software licences and the TelstraClear customer base that was valued when it was acquired by Vodafone NZ. The spectrum is held at cost and the carrying value is not considered reflective of market value;
- property, plant and equipment primarily relates to the communications network equipment;
- inventories relate predominantly to mobile handsets, modems, accessories and other CPE;
- net working capital is negative, as Vodafone NZ receives a significant proportion of its revenue in advance of services being provided;
- intercompany assets and liabilities have been excluded; and
- it is assumed that Vodafone NZ's tax liabilities on acquisition are zero (Vodafone Group will be responsible for tax on earnings up to completion). A pro forma adjustment has been made for deferred tax which has not previously been accounted for by Vodafone NZ.

7.5 Cash Flow

The pro forma operating cash flow of Vodafone NZ for the years ended 30 June 2014 to 30 June 2017 is summarised below:

Vodafone NZ – Summarised Cash Flow ($ millions)				
	Year end 30 June			
	2014 historical	2015 historical	2016 forecast	2017 forecast
EBIT	**115.6**	**56.0**	**119.0**	**169.0**
Depreciation, amortisation and impairment	384.4	389.0	334.3	310.3
EBITDA	**500.0**	**445.0**	**453.4**	**479.3**
Share of associates (gains)/losses	0.0	0.9	0.9	0.0
Other non- cash items	9.5	0.0	(2.3)	(1.8)
Movement in share based payment reserves	(0.4)	(0.8)	2.4	(0.6)
Change in working capital	(13.5)	19.0	(28.1)	(6.4)
Cash generated from operations	**495.6**	**464.1**	**426.3**	**470.5**
Capital expenditure	(295.5)	(315.5)	(237.6)	(206.1)
Operating cash flow	**200.1**	**148.6**	**188.7**	**264.4**

Source: Explanatory Memorandum

The historical cash flows have been adjusted on a pro forma basis to a 30 June year end (from a 31 March year end) and are set out in more detail in the Explanatory Memorandum (together with the assumptions used to prepare them).

Gross cash flow generation from operations is expected to fall from around $500 million in FY14 to less than $430 million in FY16 as a result of a decline in earnings and adverse working capital changes. Net operating cash flow has also been heavily impacted by the level of capital expenditure. Capital expenditure was high in FY14 and FY15, at around $300 million as Vodafone NZ invested heavily in its network development (as well as spectrum):

Vodafone NZ – Capital Expenditure ($ millions)		
	Year ended 31 March	
	2014	2015
Radio Access	82.1	64.2
Spectrum	-	68.0
Transmission	2.9	6.3
Core Network	23.3	12.1
Operations	9.7	7.5
Services and Intelligent Networks	17.6	15.9
Fixed Network (including CPE)	75.5	80.0
Network capital expenditure	**211.2**	**254.1**
IT Capex[50]	67.9	65.0
Property and shops	4.5	5.8
Capital expenditure	**283.5**	**324.9**

Source: Vodafone NZ

Over this period, capital expenditure represented approximately 15-16% of revenue. Going forward (including FY16) capital expenditure is planned to be reduced to around $200-240 million, equivalent to around 10-12% of revenue. As a result of this reduction and the improvement in earnings, there is a significant uplift in operating cash flow in FY16 and FY17 with FY17 considered more representative of a medium term sustainable level.

[50] IT Capex covers IT infrastructure such as server, storage, LAN, security applications, business and operating systems application deployment & functionality including productivity tools, product development (on applications) and IT licensing.

8 Valuation of Vodafone NZ

8.1 Summary

Grant Samuel has valued the business operations of Vodafone NZ in the range $3,400-3,700 million.

The valuation represents the estimated full underlying value of Vodafone NZ's business operations on a "control" basis assuming 100% of the company was available to be acquired and includes a premium for control. The value has been estimated on the basis of fair market value as a going concern defined as the maximum price that could be realised in an open market over a reasonable period of time assuming the potential buyers have full information.

The value attributed to the business operations represents an overall judgement having regard to a number of valuation methodologies and parameters, including capitalisation of earnings or cash flows (multiples of EBITDA, EBITA/EBIT and EBITDA-Capex) and discounted cash flow ("DCF") analysis. A general discussion of valuation methodologies is set out in Appendix 1. The objective is to determine values that are consistent both with the output of the DCF analysis (see Section 8.2) and fit with the market evidence as to multiples (see Section 8.3).

The valuation:

- is based on the earnings and cash flows of Vodafone NZ adjusted for the new fees that will be payable to Vodafone Group under the revised services and branding agreements (see Section 1.1 of this report); and
- reflects the particular attributes and risks of Vodafone NZ's business. These are discussed in more detail in Section 8.3.

8.2 Value of Business Operations – DCF Analysis

Model Overview

The DCF model forecasts nominal ungeared after tax cash flows from 1 April 2016 to 31 March 2021, a period of almost five years, with a terminal value calculated to represent the value of cash flows in perpetuity. Discount rates (weighted average cost of capital) in the range 8-9% have been used together with a terminal value growth rate of 2.5% per annum. The rationale for selection of the discount rate is set out in Appendix 2. The terminal value growth rate is higher than that assumed for Sky TV (1.5%). This reflects the better long term growth outlook for the telecommunications industry as a whole compared to a standalone satellite pay television broadcaster. A corporate tax rate of 28% has been assumed (applied to EBIT based on forecast depreciation for tax purposes). Grant Samuel has assumed that terminal capital expenditure is equal to 11.0% of terminal revenue, and that terminal depreciation and amortisation equates to terminal capital expenditure.

The DCF model has been constructed using output from Vodafone NZ's Long Run Plan, which has discrete assumptions for the key drivers of the business including market growth rates, market share, customer growth rates, churn, ARPU across different customer categories, network access costs, direct costs, variable costs relating primarily to customer servicing and retention, other operating costs and capital expenditure.

The DCF model incorporates almost five years of explicitly forecast data, with value beyond the forecast period captured through a terminal value. While a longer term forecast model would be preferable, Grant Samuel believes that this more limited period is still useful for analytical purposes as management has indicated that, given the maturity of the business, it does not foresee differential trends in model parameters from 2021 onward that could not be captured through a single terminal growth rate beyond the forecast period.

Core Assumptions

The DCF analysis considers a number of different scenarios. Scenario A has been developed by Grant Samuel as its initial case. It utilises management's long range plan as a starting point but incorporates certain different assumptions to reflect Grant Samuel's judgement on these issues. It assumes:

- business as usual in current economic conditions;
- the cumulative annual growth rate ("CAGR") for service revenue from FY16 to FY21 of 1.8%, with major factors contributing to the overall growth in service revenue including:
  - growth in Consumer fixed line revenue, partially associated with increased broadband connections through leveraging the fibre roll-out and the upgrade of Vodafone NZ's HFC Network and relatively constant Consumer fixed line ARPUs;
  - growth in Consumer mobile revenue, predominantly as a result of shifting consumer preferences from prepaid to postpaid, leveraged through offering interest free handsets (driving a decrease in overall consumer mobile ARPU) and lower churn for postpaid mobile;
  - strong Enterprise fixed revenue growth as a result of leveraging fibre and new technologies/capabilities; and
  - relatively constant Enterprise mobile revenue despite growing connections as a result of ARPU decline. ARPU decline is forecast to ease over the forecast period.
- growth in non-service revenue of 0.6% CAGR (FY16-FY21) as a result of growth in interest free device penetration and volumes, partially offset by increasing penetration of *Vodafone* branded devices;
- total interconnect and access costs CAGR of 1.7% (FY16-FY21), forecast to grow in line with customer data usage and increases in the regulated cost of copper and UFB access, offset partially by higher utilisation of Vodafone owned infrastructure, driven in part by Fit4Growth, a business wide cost reduction initiative aimed at reducing sales fixed costs and overheads;
- CAGR (FY16-FY21) of 1.6% for direct costs and net A&R costs. A relatively high growth rate in direct costs is driven by increasing pay television penetration and increased retransmission costs as a result of the fibre rollout allowing distribution of Sky TV's signal through Vodafone NZ's network. The result is more Sky TV product being sold by Vodafone NZ through Retransmission revenue with the associated expenses (and less collection of reseller fees). Net A&R expenses reduce over the period largely as a result of reduced spend on subsidies and reduced cost through leasing being offset by connection growth and installation costs;
- EBITDA (post new intercompany recharges introduced in FY17) growth as a result of higher margins in the fixed line segments offsetting downward margin pressure from reduced profitability in mobile segments, as well as the impact of the Fit4Growth initiative;
- service fees from Vodafone Group under the new arrangement. These are forecast to be $88 million per annum; and
- cost inflation of 3%. This is a higher rate than assumed in the Sky TV DCF analysis reflecting different cost pressures.

Scenario A produces NPVs in the range $3,551-4,182 million.

Sensitivity Analysis

Grant Samuel has analysed Scenario A to examine the sensitivity of the NPV to changes in the following variables:

- discount rate;
- terminal growth rate; and
- foreign exchange rates.

Sensitivities to discount rate and terminal growth rate can be seen in the table below:

Vodafone NZ – NPV Analysis ($ millions)			
Discount Rate	**Terminal Value Growth Rate**		
	2.0%	**2.5%**	**3.0%**
8.0%	3,896	4,182	4,525
8.5%	3,602	3,840	4,122
9.0%	3,350	3,551	3,786

The terminal EBITDA multiples implied by varying the discount and terminal value growth rates can be seen below:

Vodafone NZ – Implied Terminal EBITDA multiples (times)			
Discount Rate	**Terminal Value Growth Rate**		
	2.0%	**2.5%**	**3.0%**
8.0%	7.5	8.2	9.0
8.5%	6.9	7.5	8.2
9.0%	6.4	6.9	7.5

The NPV is reasonably insensitive to changes in foreign exchange assumptions, with a change of +/- 2% in assumed rates resulting in FY17 EBITDA and capital expenditure impacts of +/-$1.4 million and +/-$0.9 million respectively. Assuming similar exposures for the remainder of the forecast period would imply NPV impacts on Scenario A of around +/- 1%.

Alternative Scenarios

As with any long term projections, there are inherent uncertainties about future events and outcomes and small changes in certain assumptions can have disproportionate impacts on the calculated values. The DCF model is based on a large number of assumptions which are subject to significant uncertainty, many of which are outside the control of Vodafone NZ, including:

- economic conditions;
- exchange rates;
- competitor behaviour;
- technological change; and
- the regulatory environment.

As a result of these uncertainties, there is a range of potential outcomes that could occur, both positive and negative (and an even greater number of possible combinations of those outcomes). Accordingly, Grant Samuel has considered a number of scenarios that analyse the impact of possible variations in some of the factors outlined above.

Longer term assumptions have been made by Grant Samuel with reference to Vodafone NZ's strategic plan following discussion with Vodafone NZ management. A description of each scenario is outlined in the table below:

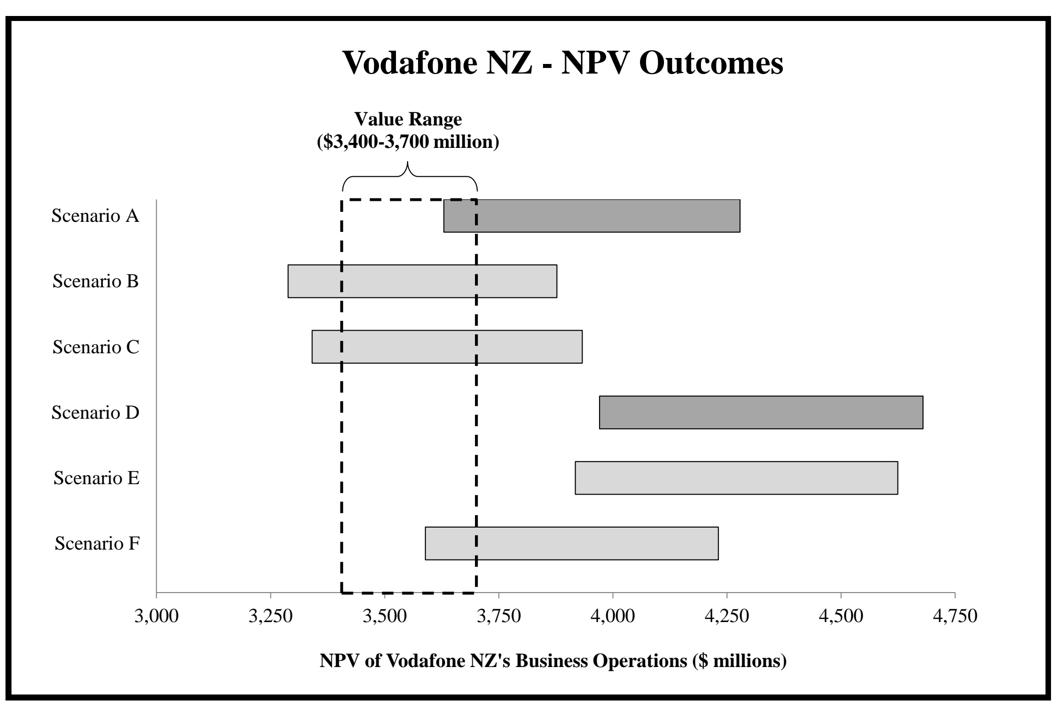
Vodafone NZ – DCF Scenarios	
Scenario	**Description**
Scenario A	Business as usual
Scenario B	As per Scenario A with a 2% decrease in forecast ARPU, equating to approx. 1.2% absolute decrease in average forecast EBITDA margin
Scenario C	As per Scenario A with a cumulative 0.25% decrease per year in forecast customer numbers, equating to approx. 0.5% absolute decrease in average forecast EBITDA margin
Scenario D	As per Scenario A with a 2% increase in absolute forecast ARPU, equating to approx. 1.2% absolute increase in average forecast EBITDA margin
Scenario E	As per Scenario A with a cumulative 0.25% increase per year in forecast customer numbers, equating to approx. 0.5% absolute increase in average forecast EBITDA margin
Scenario F	As per Scenario A with a 1% decrease in absolute interest free device penetration for enterprise mobiles and a 3% decrease in absolute interest free device penetration for consumer postpay mobiles, equating to approx. 0.1% absolute decrease in average forecast EBITDA margin

The alternative scenarios do not, and do not purport to, represent the entire range of potential value outcomes for Vodafone NZ's business operations. They are simply theoretical indicators of the changes in the NPVs derived from different sets of assumptions. In this regard, the NPV outcomes show a relatively wide range across the different scenarios, highlighting the sensitivity to relatively small changes in assumptions

Moreover, the scenario analysis does not take into account the operational flexibility that management has to react to changes in markets in which Vodafone NZ operates. For example, movements in customer numbers can be managed by changes in marketing strategy and sales channels, by offering discounts, through new promotions or enhancing product offerings. Vodafone NZ would also be able to adapt its cost structure to changing circumstances.

NPV Outcomes and Value Range Selection

Grant Samuel's selected value range of $3,400-3,700 million for Vodafone NZ's business operations reflects a subjective balancing of the scenarios. The NPV outcomes are depicted diagrammatically below:



The range of NPVs produced by the scenarios is wider than the value range Grant Samuel has placed on Vodafone NZ's business operations of $3,400-3,700 million. Grant Samuel has considered the outcome of all of the scenarios in determining its value range for Vodafone NZ's business operations but the selected range covers values produced by Scenarios A, B, C and F. Scenario A does incorporate assumptions regarding Enterprise fixed revenue growth, churn and cost savings that will be challenging for the business to achieve. Accordingly, the range covers the lower portion of this scenario.

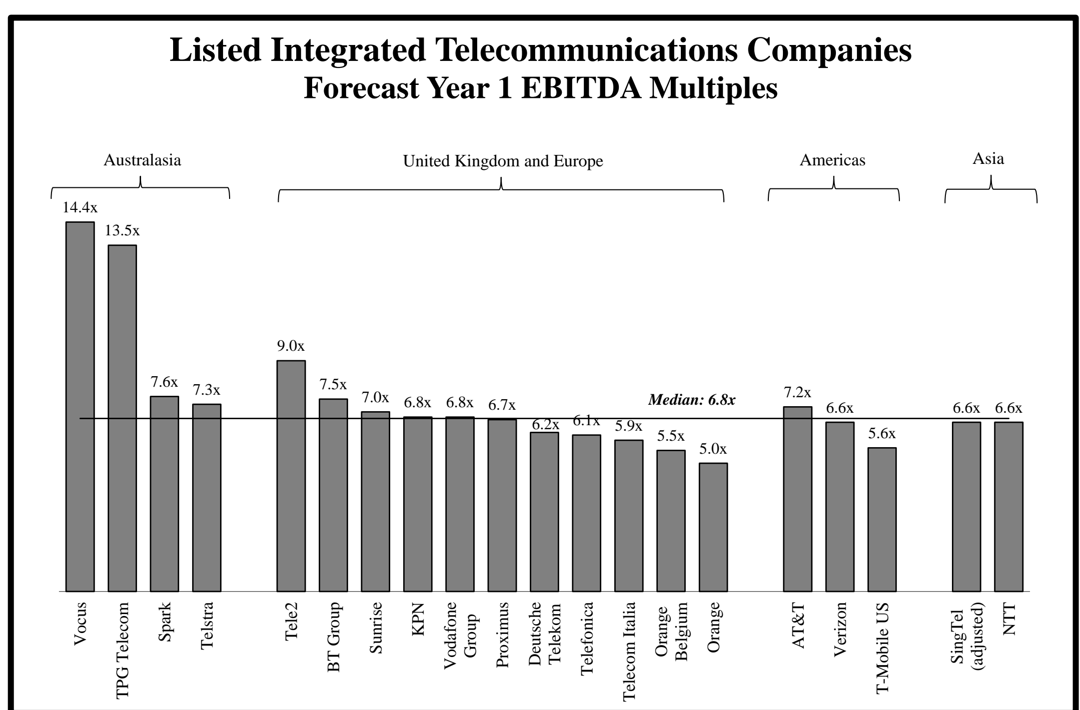
8.3 Value of Business Operations – Multiples Analysis

Grant Samuel's selected value range has been reviewed having regard to multiples of EBITDA, EBITA/EBIT and EBITDA-Capex for comparable listed companies and for transactions involving telecommunications businesses.

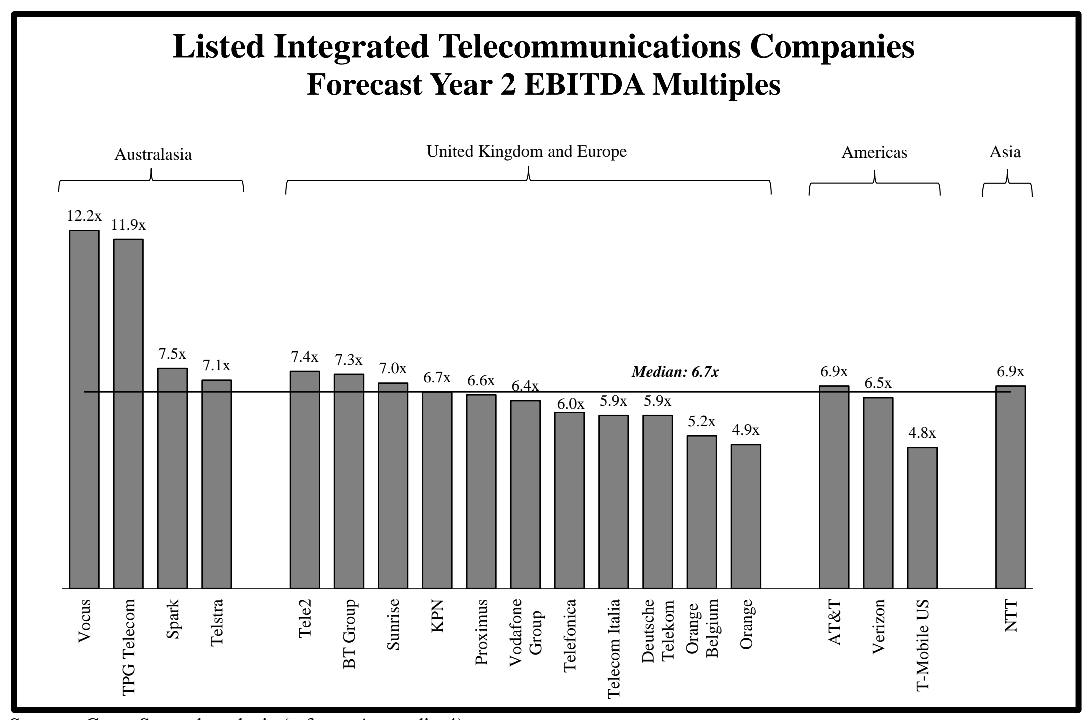
Sharemarket Evidence

Appendix 4 contains an analysis of the earnings multiples implied by the share prices as at the end of April 2016 for a selection of listed integrated telecommunications businesses.

The following charts summarise the forecast EBITDA multiples:

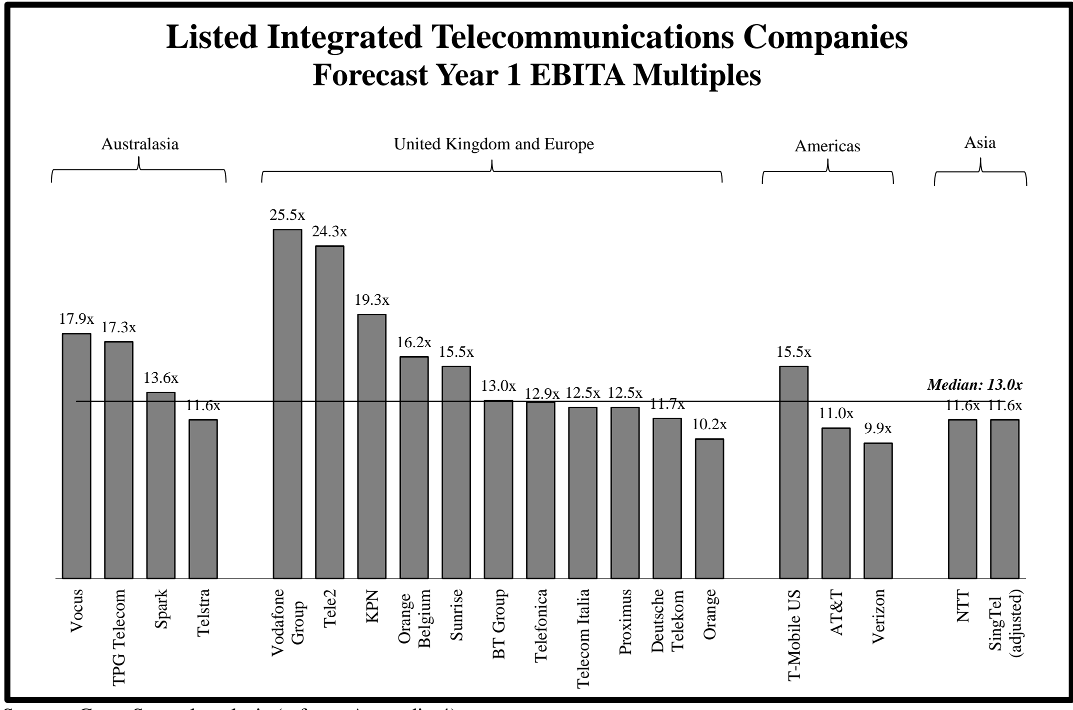


Source: Grant Samuel analysis (refer to Appendix 4)
Note: Chart excludes Australian listed company Hutchison Telecommunications (Australia) Limited ("Hutchison Australia") as forecasts are not available.

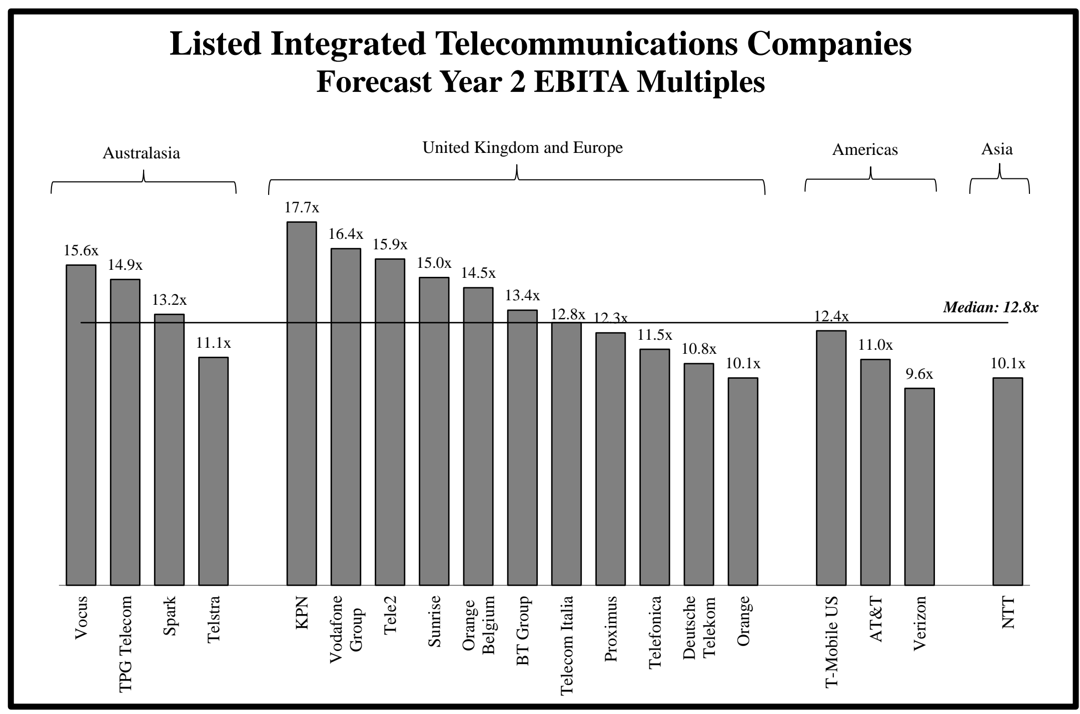


Source: Grant Samuel analysis (refer to Appendix 4)
Note: Chart excludes:
- Hutchison Australia as forecasts are not available; and
- SingTel (adjusted) as no forecasts are available for forecast year 2 on a proportionate earnings basis.

The following chart summarises the forecast EBITA multiples:



Source: Grant Samuel analysis (refer to Appendix 4)
Notes: (1) Chart excludes Hutchison Australia as forecasts are not available.
(2) Multiples for SingTel (adjusted) are calculated based on EBIT as details of amortisation of acquired intangibles are not available for SingTel's associates and joint ventures.



Source: Grant Samuel analysis (refer to Appendix 4)
Note: Chart excludes:
- Hutchison Australia as forecasts are not available; and
- SingTel (adjusted) as no forecasts are available for forecast year 2 on a proportionate earnings basis.

The following factors are relevant to consideration of the comparable company multiples:

- the multiples are based on share prices and therefore do not include a premium for control;
- the comparable companies in the data set have a variety of year ends. The multiples have been presented on a basis that best aligns the data with the proforma 30 June financial information for Vodafone NZ;
- there are many listed telecommunications companies across the globe. Grant Samuel's analysis is focussed on a selected subset that was considered relevant to the valuation of Vodafone NZ, primarily integrated carriers (often, but not always, the historical "incumbent") that provide a broad array of telecommunications services and products to consumers and businesses as these are the most directly comparable to Vodafone NZ. Apart from fixed line voice and broadband services, they may also:
  - provide mobile voice and data services;
  - own and operate mobile networks;
  - own and operate significant network assets providing, for example, intercity carriage or backhaul; and
  - own and operate the "last mile" physical network to customer premises.

  The data set includes integrated carriers in New Zealand and Australia as well as Europe, the United States and Asia and does include some entities whose business is primarily mobile telephony.

  In addition, the analysis set out in Appendix 4 covers a range of other listed companies engaged in the telecommunications industry in New Zealand and Australia including Chorus (a wholesale only network operator), resellers and businesses providing hosting and IT services;

- relative capital intensity contributes to differences in multiples. For global integrated carriers, capital expenditure generally runs at approximately:
  - 12-16% of revenue depending on the stage of the cycle (e.g. fibre network roll out, mobile platform replacement); and
  - 40-60% of EBITDA.

  However, these ratios will vary depending on individual circumstances. For example:
  - in New Zealand, following the introduction of the UFB program and structural separation of Telecom NZ into Spark and Chorus, capital expenditure requirements will be lower as carriers do not need to invest in their own "last mile" fixed line networks (or even any network assets). Instead, they will pay access charges to Chorus and the other LFCs so they should also exhibit lower margins;
  - in contrast in Australia, Telstra still owns the copper network to consumer premises but:
    - the next decade will see a transition to the NBN (currently owned by the Australian Government), an open access high speed broadband network throughout the country using a variety of technologies including fibre to the home, fibre to the node, existing HFC networks, wireless and satellite. The NBN is still in the relatively early stages of being rolled out; and
    - TPG Telecom Limited ("TPG Telecom") is building out a significant fibre network of its own including fibre direct to residential customer premises.

  Accordingly, metrics such as EBITDA-Capex are a common measure of performance across the telecommunications industry, although EBITA is a reasonable substitute as long as depreciation expense is in line with capital expenditure;
- the analysis indicates that most integrated carriers in Australasia and globally are trading at approximately:
  - 6-8 times forecast EBITDA; and
  - 12-14 times forecast EBITA.

  There are some outliers but these can be explained by factors specific to each company:
  - TPG Telecom trades at a materially higher multiple (over 12 times forecast EBITDA) reflecting its perception as a high growth business with a strong track record of expanding through acquisition. Forecast earnings do not reflect the full benefits from the recent acquisition of iiNet Limited or new arrangements with Vodafone Hutchison;
  - Vocus completed a merger with M2 Group in February 2016 to become a full service integrated trans-Tasman telecommunications company. It is trading at multiples similar to TPG Telecom reflecting the record of both Vocus and M2 Group as high growth companies (both organically and by acquisition). Furthermore, the forecast earnings do not reflect the full benefits of the merger (not expected until the end of FY18) or other recent acquisitions by the predecessor companies;
  - Tele2 AB, a European telecommunications company focussed on mobile telephony (circa 75% of net sales). Forecast earnings do not reflect the full benefits of a productivity improvement initiative (Challenger Program). In addition, forecast year earnings do not reflect a full year contribution from the February 2016 merger in Kazakhstan which has created a mobile business with 6 million subscribers and a 23% market share;
  - Orange SA ("Orange") is the lowest rated of the integrated telecommunications companies at 5 times forecast EBITDA which probably reflects the low growth outlook and the impact of the recent failed attempt to merge with Bouyges Telecoms; and
  - Orange Belgium SA/NV which is trading at similar multiples to Orange (which owns 53%). This rating probably reflects its focus on mobile telephony;

- the multiples of Spark, Vodafone NZ's direct competitor (and the largest participant in the New Zealand telecommunications market), and other "core" comparables are summarised below:

Vodafone NZ – Earnings Multiples of Core Comparables (times)		
	Forecast Multiples	
	Year 1	Year 2
EBITDA		
Spark	7.6	7.5
Telstra	7.3	7.1
SingTel (adjusted)	6.6	na
Vodafone Group	6.8	5.9
EBITA		
Spark	13.6	13.2
Telstra	11.6	11.1
SingTel (adjusted)	11.6	na
Vodafone Group	25.5	16.4
EBITDA-Capex		
Spark	12.6	12.3
Telstra	11.7	11.4
SingTel (adjusted)	na	na
Vodafone Group	26.0	12.0

Source: Grant Samuel analysis (see Appendix 4)

This group exhibits a tight range for EBITDA multiples but is more diverse at an EBITA level. Vodafone Group's high EBITA multiples reflects its high capital intensity. It is towards the top end of the industry in terms of capital expenditure as a proportion of revenue (over 20%) and EBITDA (over 70%) and towards the low end for EBITA margins. However, this situation is expected to improve materially over the next 2-3 years as capital expenditure tails off from recent peaks and earnings grow; and

- the multiples for companies other than integrated carriers fall in a wide range as a result of different growth profiles and stages of maturity as well as the impact of recent acquisitions and contract wins. A number of hosting and IT service providers are trading at multiples slightly below those of the integrated carriers. This is likely to reflect their relatively small size (most have a market capitalisation of less than A$500 million), the competitive industry in which they operate and capital expenditure requirements. The relatively high EBITDA multiples for amaysim Australia Limited (an MVNO) reflects its minimal capital expenditure requirements while MNF Group Limited ("MNF") is expected to benefit from its recent acquisition of Spark's global wholesale voice business (TNZI). Having developed a network of data centres across Australia, NextDC Limited is now focussed on increasing sales and utilisation of its portfolio. It is projecting significant growth in profitability over the next 3-4 years.

Transaction Evidence

Appendix 4 also contains an analysis of the earnings multiples implied by selected recent acquisitions of telecommunications businesses in New Zealand and Australia. The following table summarises the EBITDA and EBITA multiples implied by the transactions:

Recent Transaction Evidence – Telecommunications (New Zealand and Australia)

Date	Target	Consid-eration (millions)	EBITDA Multiple (times)		EBITA Multiple (times)	
			Historical	Forecast	Historical	Forecast
Fibre Networks						
Dec 14	Amcom Communications	A$678	14.5	13.6	19.2	18.8
Dec 14	Pacnet Limited	US$697	6.3	na	na	na
Jul 14	FX Networks Limited	NZ$115	8.5	7.4	24.1	17.6
Dec 13	AAPT (Telecom New Zealand Australia)	A$450	8.2	6.4	na	15.0
Mar 13	Telecommunications assets of Leighton Holdings	A$824	na	5.9-6.9	na	7.4-8.7
Nov 09	PIPE Networks Limited	A$425	23.0	8.0-8.3	30.2	na
Data Centres						
Dec 15	CCL Group	NZ$50	na	6.3	na	na
Feb 15	Data centre assets of Enterprise Data Corporation	A$24	na	5.0	na	na
Aug 14	Bentley data centre	A$12	na	5.9	na	na
Apr 13	Revera Limited	NZ$94	7.2	6.3	na	na
May 12	Maxnet Limited	NZ$10	na	4.8	na	na
Internet / Voice / Resellers						
Sep 15	M2 Group Ltd	A$2,033	9.8	8.7	11.9	10.2
May 15	iiNet Limited	A$1,935	9.7	9.5	13.2	12.1
Apr 15	CallPlus Group	NZ$250	6.9	5.6	na	na
Apr 15	International voice business of Spark	A$22	na	6.3	na	na
Aug 13	Adam Internet Holdings	A$59	5.9	5.1	9.4	7.6
Aug 13	Intelligent IP Communications	A$10-20	7.1-14.2	na	na	na
Mar 13	Dodo Australia Holdings	A$204	9.7	7.0	na	na
Mar 13	Eftel Limited	A$44	11.3	8.8	18.3	na
Jul 12	TelstraClear Limited	NZ$840	5.6	na	30.8	na
Apr 12	Primus Telecom Holdings	A$192	4.8	na	11.1	na
Dec 11	Internode Pty Limited	A$105	17.1	4.2	na	5.7
Nov 11	TransACT Communications	A$57	3.3	na	5.0	na
Jul 11	IntraPower Limited	A$15	9.2	na	29.1	na
Feb 11	Clear Telecoms assets	A$25	na	3.1	na	na
Jul 10	AAPT Consumer Division	A$60	na	6.0	na	na
Mar 10	Netspace	A$42	na	5.2	na	na

Source: Grant Samuel analysis (refer to Appendix 4)

Grant Samuel has also had regard to a range of recent transactions involving large scale telecommunications businesses outside of Australasia. The transactions represent a mix between mobile operators and integrated telecommunication providers:

Recent Telecommunications Transactions – International						
Date	Target	Consideration (millions)	EBITDA Multiple (times)		EBITA Multiple (times)	
			Historical	Forecast	Historical	Forecast
Apr 15	BASE Company	€1,325	8.5	8.2	na	na
Jan 15 pending	Telefónica UK	£9,250-10,250	7.2-7.9	na	18.7-20.7	na
Dec 14	EE Limited	£12,500	7.9	7.8	18.7	18.3
Nov 14	PT Portugal	€5,600	7.2	na	na	na
Sep 14	Jazztel	€3,744	20.3	17.6	46.7	na
Oct 13	Portugal Telecom	€10,440	4.6	5.2	11.9	16.2
Sep 13	Verizon Wireless	US$299,652	10.1	8.8	13.6	11.3
Jul 13	E-Plus Mobilfunk	€8,100	7.4	9.0	18.8	nmf
Jul 13	Leap Wireless	US$4,000	6.7	8.6	nmf	na

Source: Grant Samuel analysis (refer to Appendix 4)

The following factors are relevant to consideration of the transaction evidence:

- the transaction analysis is divided into two groups:
  - acquisitions across all segments of the telecommunications industry in Australasia which includes a number of transactions involving Vodafone NZ and its direct peers. All of the transactions relate to the acquisition of businesses operating primarily in either, or both, of Australia and New Zealand except for:
    - Telstra's acquisition of Pacnet, which operates in the Asia Pacific region;
    - TPG Telecom's acquisition of PIPE Networks Limited, which had a growing international business associated with ownership of the PIPE Pacific Cable 1 linking Sydney with Guam (albeit relating to telecommunications traffic to and from Australia); and
    - the international voice business acquired by MNF from Spark, the operations of which span Europe, North America, Asia and Oceania; and
  - global acquisitions of integrated telecommunications companies and mobile network operators over the past three years;
- there is often a focus on EBITDA multiples but, given the significant differences in capital intensity (specifically capital expenditure as a proportion of EBITDA), EBITA may be a more useful and meaningful metric. As long as the reported depreciation and amortisation change is reasonably close to normalised capital expenditure, EBITA is a good proxy for operating cash flow (EBITDA-Capex) measures of which are not usually available for acquisitions;
- the majority of the Australasian transactions are small or “bolt on” rather than “step change” in nature (although this categorisation is somewhat arbitrary depending on the stage of development of the acquirer’s business). For example, the acquisitions of Adam Internet, Internode and TransACT Communications were additions to iiNet’s established broadband business (increasing scale), while the acquisition by Spark of Revera and CCL Group expanded its data centre activities within New Zealand. In comparison, other transactions represent more significant expansions of geographical footprint and/or scale (e.g. Vocus’ acquisition of FX Networks and M2 Group’s acquisition of CallPlus Group).

  The multiples implied in these transactions are generally relatively low reflecting the small scale of the businesses but some were relatively high reflecting different business models (e.g. capital “light”) as well as the availability of synergies (which were very significant in some cases);
- the more significant and relevant transactions in New Zealand and Australia are discussed below:

- Vodafone NZ's acquisition of TelstraClear represented relatively high multiples of EBITA (over 30 times) but modest multiples of EBITDA (less than 6 times). However, the acquisition:
  - was strategically important to Vodafone NZ, filling significant capability (and infrastructure) gaps in fixed line services and enabling Vodafone NZ to become a full service telecommunications company. TelstraClear provided over 6,000 kilometres of fibre network (including HFC networks in Wellington, Kapiti Coast and Christchurch), a consumer and business customer base of almost 300,000 customers, business account management capability, pay television distribution infrastructure and enhanced redundancy;
  - provided opportunities for very substantial cost savings including migrating customers to On-net, backhaul and network capital expenditure; and
  - involved various agreements with Telstra relating to future traffic flows and customer servicing;
- the recent acquisitions of Amcom, iiNet and M2 Group were undertaken at multiples higher than those for other transactions in the last five years. In addition to the factors specific to those target companies and the transactions (see discussion below), this likely reflects:
  - the extent to which synergies were available to the acquirer (and the extent to which these had to be shared with the vendor);
  - the general slowing of revenue growth in the telecommunications sector and the stage of sector consolidation in which they occurred (the acquisitions of Amcom and iiNet involved competition from potential alternate acquirers and occurred with the knowledge that future transactions may face competition issues); and
  - the transactions were relatively large in scale;
- the terms of the merger between Vocus and M2 Group imply that Vocus paid multiples of 8.7 times forecast FY16 EBITDA and 10.2 times forecast FY16 EBITA for M2 Group. When considering this transaction, it should be noted that:
  - the transaction was a nil premium merger and therefore no premium for control was paid by Vocus;
  - the merger combined the complementary strengths and capabilities of the companies in the telecommunications sector. M2 Group brought a portfolio of residential and business brands and extensive sales and marketing expertise while Vocus contributed underutilised fibre network infrastructure and networking expertise. The merger created a full service integrated telecommunications company, the third largest in New Zealand and the fourth largest in Australia;
  - the implied multiples are blended reflecting M2 Group's range of activities, focussed in the residential and business customers; and
  - the merger is expected to deliver A$40 million in cost synergies with the potential for significant revenue synergies from an expanded product set and distribution capabilities. Adjusting for cost synergies on a 50/50 allocation basis, reduces the multiples to around 8.0 times EBITDA and 9.3 times EBITA;
- Vocus paid multiples of 12.1 times forecast FY16 EBITDA and 16.3 times forecast FY16 EBITA for Amcom. When considering this transaction, it should be noted that:
  - Amcom's business offering was very similar to that of Vocus (except for Amcom's IT services business) but focussed on different geographies;
  - the implied multiples are blended reflecting Amcom's range of activities, albeit focussed on corporate and government customers;
  - in November 2014, Amcom had announced a significant expansion of its business on the east coast of Australia (including the acquisition of fibre assets in

Melbourne, Sydney and Brisbane, fibre access agreements and infrastructure in exchanges in Melbourne, Sydney and Brisbane). This expansion was expected to be earnings accretive in FY16 and had the potential to contribute up to 20% of earnings in FY17; and

- the synergy benefits expected from this transaction were material. Vocus estimated that cost savings in the order of $13-15 million per annum (around 25% of Amcom's operating cost base) and flagged the potential for significant revenue synergies. Adjusting for synergies of, say, $14 million, would reduce the multiples to around 10 times FY16 EBITDA and 13 times FY16 EBITA; and

- TPG Telecom paid multiples of 9.5 times forecast FY16 EBITDA and 12.1 times forecast FY16 EBITA for iiNet. When considering this transaction, it should be noted that:
  - in terms of broadband subscribers, iiNet was the third largest internet service provider ("ISP") in Australia (behind Telstra and Optus) and second largest DSL ISP (behind Telstra). It provided over 1.9 million broadband services to over 975,000 customers. Although it had invested in and acquired its own digital subscriber line access multiplexer ("DSLAM") network, over 35% of customers were serviced on a reseller basis;
  - the acquisition increased TPG Telecom's broadband subscriber base to over 1.7 million (making it the second largest ISP) and delivered significant scale to TPG Telecom in an NBN environment; and
  - although not quantified by TPG Telecom, market commentators estimate that cost savings in the order of $70-80 million per annum could be achieved within three years of completion (9-10% of iiNet's operating cost base) from this acquisition. These estimates do not allow for the potential for revenue or other synergies. Adjusting for synergies of, say, $75 million would reduce the FY16 EBITDA multiple to 6.9 times; and

- the international transactions would suggest multiples (before synergies) of 7-9 times forecast EBITDA. The transactions outside the 7-9 times forecast EBITDA range were:
  - Orange's acquisition of Jazztel plc at 17.6 times which reflected high growth expectation following Jazztel's acceleration of investment in its fibre to the home network; and
  - Oi S.A.'s acquisition of Portugal Telecom SGPS S.A. at around five times EBITDA. However, this was effectively a (very complex) nil premium merger and the Portuguese business was subsequently sold at an EBITDA multiple of 7.2 times (before synergies).

However, synergies were a significant feature of virtually every transaction, substantially reducing the effective multiples paid. The following table shows the effective multiple for those transactions where information on synergies was disclosed:

Recent International Telecommunications Transactions – Synergy Adjusted Multiples[45]

Target	Forecast EBITDA Multiple (times)	
	Unadjusted	Adjusted
BASE Company NV	8.2	4.3
EE Limited	7.8	6.4
Jazztel plc	17.6	10.1
E-Plus Mobilfunk GmbH	9.0	4.8

Source: Grant Samuel analysis (refer Appendix 4)

Analysis and Conclusion

Based on the adjusted earnings forecasts set out in Section 6, Grant Samuel's value range of $3,400-3,700 million implies the following multiples:

Vodafone NZ – Implied Valuation Parameters			
	Variable ($ millions)	Range of Parameters	
		Low	High
Value range ($ millions)		**3,400**	**3,700**
Multiple of underlying EBITDA (times)			
Year ended 30 June 2016 (forecast)	453.4	7.5	8.2
Year ending 30 June 2017 (forecast)	480.9[51]	7.1	7.7
Multiple of underlying EBITA (times)			
Year ended 30 June 2016 (forecast)	134.7	25.2	27.5
Year ending 30 June 2017 (forecast)	183.3[51]	18.5	20.2
Multiple of EBITDA-Capex (times)			
Year ended 30 June 2016 (forecast)	215.8	15.8	17.1
Year ending 30 June 2017 (forecast)	274.8[51]	12.4	13.5

In Grant Samuel's opinion, the EBITA multiples should be disregarded. The EBITA forecast for FY16 and FY17 incorporates depreciation and amortisation changes of around $300 million per annum (even excluding amortisation of the TelstraClear customer base). This compares to forecast capital expenditure of a little over $200 million. The high depreciation expense in part reflects higher levels of capital expenditure in prior years (including FY14 and FY15) but the forecast expenditure in FY16 and FY17 is more representative of the level of expenditure anticipated over the medium term. In this respect, the multiple of EBITDA-Capex is a more meaningful metric to consider (and, arguably, a better measure of "normalised" EBITA).

The market evidence from acquisition transactions in New Zealand and Australia provides limited guidance because none of the target companies is directly comparable to Vodafone NZ in terms of breadth or scale and the implied multiples fall in a relatively wide range. In summary:

- most transactions in Australasia were bolt on acquisitions of smaller businesses at relatively modest EBITDA multiples (typically less than 7 times). However, that is the nature of such acquisitions and a large, broadly based business with market leadership in key sectors such as Vodafone NZ would warrant higher multiples. Small transactions with high multiples reflected different business models;
- the larger Australasian transactions such as iiNet, Amcom and M2 Group were at higher multiples (around 10-15 times) but there were significant synergies involved that reduced the effective multiples; and
- international transactions over the last three years generally fall in the range 7-9 times forecast EBITDA but were significantly lower allowing for synergies.

The market evidence from listed companies provides a clearer pattern (around 6-8 times forecast EBITDA in most cases) and involves companies that could reasonably be compared to Vodafone NZ. Spark, Vodafone NZ's direct competitor, trades at 7.5 times FY17 EBITDA while Vodafone Group, Vodafone NZ's parent company, trades at 5.9 times FY17 EBITDA. However, these multiples are based on share prices and do not include a premium for control.

[51] Before one off costs of $1.6 million.

Vodafone NZ has a number of characteristics that would contribute to a higher multiple:

- while New Zealand is a small market, the underlying economic conditions and outlook are relatively strong, certainly compared to Europe or the United States. Despite continuing low prices for agricultural commodities, GDP is expected to grow at approximately 2.5% (real) over the next 2-3 years. New Zealand's population grew by 1.9% in the year to 30 June 2015 and the growth rate is forecast to remain relatively high (between 1.0 and 1.5% per annum) over the medium term;
- Vodafone NZ started off as a mobile telephony operator but it now has a very strong market position across the full gamut of the New Zealand telecommunications industry. In terms of the total telecommunications market, it is a strong #2 to Spark. It enjoys leadership in some important sectors of the market, particularly mobile where it has a share of approximately 40% of connections and higher in terms of revenue. As a result of the acquisition of TelstraClear, it also has a significant share of fixed line connections (approximately 29%). Vodafone NZ has demonstrated an ability to operate effectively in a very competitive environment and to successfully position its business at the premium end of the market;
- the *Vodafone* brand, albeit available under licence rather than "owned", is a very powerful and widely recognised brand globally as well as in New Zealand;
- Vodafone NZ's access to Vodafone Group technology, product development, marketing expertise and other "know how" ensures that it should be able to be a leader in the continued development of the telecommunications industry in New Zealand (from both a product and service point of view);
- Vodafone NZ has a very strong product offering in the market for consumers, in part because of its existing partnership with Sky TV giving it the ability to bundle a premium pay television service;
- Vodafone NZ has a high quality physical network (mobile towers, fibre backbone, and HFC residential networks) with significant latent capacity. Notwithstanding some recent consumer perception problems, the Vodafone NZ mobile network has a very strong spectrum portfolio and independent testing has confirmed its superiority in terms of performance measures such as download speed, voice call quality and call drop frequency;
- as a result of the capacity within Vodafone NZ's mobile network, it is expected to be able to absorb the forecast continued rapid growth in data usage over the next 3-5 years without significant further capital expenditure. The next generation mobile standard (5G) is expected to commence being rolled out around 2020 and is likely to be a heterogeneous network using spectrum across all bands (and requiring at least 100MHz of new contiguous spectrum to support the functionality). However, Vodafone NZ's capital expenditure requirements for 5G are expected to be relatively modest, in part through recycling of its existing spectrum;
- Vodafone NZ has invested heavily in its network infrastructure over the past 2-3 years and future capital expenditure requirements over the medium term are expected to be more moderate at around 10-12% of revenue which is:
  - similar to the levels incurred by Spark; and
  - reasonable compared to other integrated carriers (global benchmarks are around 12-16%) taking into account the role of Chorus and other LFCs in the New Zealand market which avoids the need for investment in "last mile" networks (or even any network infrastructure);

  Beyond 2020, there will be specific projects (such as 5G) but it is believed these will be able to be largely absorbed within this overall envelope; and
- EBITDA margins for Vodafone NZ and Spark are both under 30% (following a decline in the last 2-3 years as a result of aggressive pricing). These are below those of international comparables. While this differential may be partly structural (as a result of the role of Chorus and other LFCs) there is no suggestion that there is an unsustainable peak in the profitability of the telecommunications industry in New Zealand; and

- an important part of Vodafone NZ's medium term strategy is a continuing "cost out" program. A number of Vodafone NZ's key operating costs are relatively high relative to other members of the Vodafone Group and to global benchmarks which should underpin the ability to achieve these cost savings.

On the other hand, there are a number of factors suggesting some degree of caution is warranted:

- the New Zealand telecommunications market is mature and competitive. Penetration levels for mobile services are already high by world standards. The completion of the UFB does offer opportunities for developing enhanced and/or new premium services but with the open access networks provided by Chorus and other LFCs, the barriers to entry for competing providers of fixed line services are lower;
- the *Vodafone* brand is only available to Vodafone NZ under licence. The licence agreement has an initial term of 10 years. Similarly, the other service agreements have an initial term of only five years (unless Vodafone Group reduces its shareholding in the Combined Group). While it is reasonable to assume that, if Vodafone Group retains its shareholding, these agreements will be extended on similar terms, there is no certainty that this will occur (and they are unlikely to be extended if Vodafone sold its interest). In addition there are risks as to the cost on renewal;
- Vodafone NZ's earnings track record over the past few years has been patchy, with EBITDA declining in FY15 and remaining flat in FY16. The fall is primarily due to reductions in ARPU as a result of intensive price based competition from Spark and 2degrees (mobile only). The effect was greatest in Enterprise Mobile as price reductions in Consumer Mobile were partly offset by the ongoing shift of customers from prepaid to postpaid.

  The forecasts for FY17 (and management projections beyond that) are premised on these price reductions abating. While there are plausible reasons why this should occur (not least because it is value destructive for all operators) there can be no certainty this will happen. *2degrees* is a challenger brand and is still below the market share that challengers in other markets have obtained and it may see further potential to benefit from aggressive pricing (even if at the expense of short term profitability). Competition in the Enterprise segment can be expected to remain intense;
- notwithstanding the actual performance of its mobile network, Vodafone NZ has experienced some perception issues amongst consumers in terms of network reliability and service levels. However, remedial actions have been taken; and
- the FY17 forecast includes significant cost savings from the Fit4Growth program. Not all of these identified savings have detailed plans.

Other factors to take into account include:

- the earnings outlook beyond FY17. In broad terms, the expectations for earnings across the telecommunications industry are for modest growth that, for individual operators, will be "hard won". There are real upside opportunities:
  - there are well founded expectations of improved market conditions over the next few years;
  - the UFB and continued technological developments will drive increasing demand for premium services and the potential to develop new services and products;
  - demand from enterprises and government for complete communications service solutions (rather than just carriage) continues to increase which should improve revenues and/or margins in this segment of the market;
  - increased penetration levels combined with population growth should lead to subscriber growth;

- the consumer shift to post paid mobile plans should improve ARPU (although not necessarily immediately); and
- there is significant potential for Vodafone NZ to reshape its cost base.

However, at the same time:

- price growth will be challenging in an environment where customers (consumer and enterprise) are conditioned to expect "more for less". Enhanced services with stronger pricing typically also carry additional costs (e.g. video content cost);
- competitive pressures will only intensify over time and price based competition will not disappear from the industry; and
- input cost rises are inexorable, particularly labour; and

- the limited universe of potential acquirers of Vodafone NZ and the scope for synergies:
  - there are no "in market" acquirers of Vodafone NZ. Spark would almost certainly be prevented on competition grounds and there are no other entities (in, or associated with, the telecommunications industry) that would have the financial capacity. Accordingly, potential acquirers of Vodafone NZ would need to be based overseas. In this context, it is most likely to be most attractive to an operator with an existing footprint in the most adjacent markets (Australia or Asia); and
  - in these circumstances the opportunities for direct cost synergies for a buyer is limited as Vodafone NZ would effectively remain a standalone business. Vodafone NZ has already put in place arrangements to exploit the potential for shared services, knowledge, and product development with Vodafone Group and it is reasonable to assume that these are at least as effective as they would be under another owner.

  Accordingly, Grant Samuel has not factored any synergies into its valuation of Vodafone NZ.

The multiples implied by the value range represent a balancing between the different metrics and the relativities to comparable companies and to Sky TV. While the EBITDA multiples are relatively low (7.1-7.7 times FY17 EBITDA) and are lower than that implied by the valuation of Sky TV (7.5-8.2 times), Vodafone NZ has a higher level of capital intensity and lower free cash ratio. The multiple of EBITDA-Capex at 12.4-13.5 for FY17 is relatively high and higher than Sky TV (11.6-12.6 times). However, this is appropriate given the better overall outlook for Vodafone NZ relative to Sky TV.

Taking all of these factors into account Grant Samuel considers the multiples implied by the valuation of Vodafone NZ to be reasonable.

9 Profile of the Combined Group

9.1 Overview

If the Proposed Transaction proceeds, the Combined Group will become an integrated telecommunications, media and entertainment company. The Combined Group will have the leading market position in pay television and mobile and will be the second largest participant in fixed broadband and voice. The transaction will allow the Combined Group to provide fully integrated bundled quad play and multi-play services (fixed line, broadband, mobile and pay television and/or other digital services such as OTT offerings) and to exploit more effectively the potential of Sky TV's content assets through the use of Vodafone NZ's infrastructure and access to its subscriber base and through the deployment of emerging technologies and applications as they arise.

9.2 Synergies

The combination of Sky TV and Vodafone NZ is expected to allow the two companies to generate significant benefits in terms of quality of offering and service to customers, as well as quantifiable revenue and cost synergies.

Revenue synergies are expected to be achieved through:

- cross selling services. In particular, a relatively low proportion of Sky TV subscribers are also Vodafone NZ customers and vice versa;
- increasing penetration of pay television and consumer data usage;
- pursuing new products and services that better cater to changing consumer preferences; and
- allowing improved understanding of customers and their needs through more sophisticated customer engagement.

Cost synergies are expected to include:

- headcount reductions;
- rationalisation of common functions;
- use of Vodafone NZ's network for Sky TV's broadcasting; and
- a variety of other efficiency and cost saving initiatives.

Management of Sky TV and Vodafone NZ have conducted a detailed review and quantification of the potential benefits. The total NPV of the synergies has been estimated at around $850 million, of which approximately $415 million relates to operating and capital cost synergies and the balance are revenue synergies. Pre-tax integration costs are expected to be around $80 million upfront, to be spent over the next two to three years. It is expected that the synergy benefits will only commence to be realised after FY17, with the bulk of the benefits only arising after some years.

9.3 Earnings

The Combined Group will report its earnings in two divisions: Media & Entertainment and Telecommunications. The pro forma forecast earnings of the Combined Group for FY16 (assuming that the Proposed Transaction occurred on 1 July 2015) and for FY17 (assuming that the transaction occurred on 1 July 2016) are set out in the Explanatory Memorandum and are summarised in the table below:

Combined Group – Pro Forma Financial Performance ($ millions)		
	Year end 30 June	
	2016	**2017**
Media & Entertainment revenue	926.6	920.4
Telecommunications revenue	1,998.8	2,024.3
Eliminations	(22.1)	(30.3)
Total Revenue	**2,903.3**	**2,914.3**
Media & Entertainment costs	(601.4)	(624.4)
Telecommunications costs	(1,545.4)	(1,545.0)
Eliminations	22.1	28.6
Total Operating Expenses	**(2,124.7)**	**(2,140.8)**
EBITDA	**778.6**	**773.5**
Depreciation and amortisation	(418.2)	(398.9)
EBITA	**360.4**	**374.6**
Amortisation of acquired intangible assets	(15.7)	(96.9)
EBIT	**344.7**	**277.7**
Net finance costs		(71.2)
Net profit before tax		**206.5**
Income tax expense		(61.5)
Net profit		**145.0**
Adjustments for once off items included above ($ millions)	*10.6*	*12.8*
Adjusted EBITDA ($ millions)	*789.2*	*786.3*
Adjusted EBITA ($ millions)	*371.0*	*387.4*
Adjusted EBIT ($ millions)	*355.3*	*290.5*
Statistics		
EPS (cents)	*NM*	*18.3*

Source: Explanatory Memorandum and Grant Samuel analysis

The Combined Group financial performance for the line items before EBIT represents the addition of the financial forecasts of Sky TV and Vodafone NZ (see Sections 6 and 8) with the following adjustments:

- revenue eliminations relating to intercompany sales (mainly relating to the marketing and retransmitting of Sky TV products by Vodafone NZ);
- cost eliminations relating to the provision of intercompany sales (mainly relating to the marketing and retransmitting of Sky TV products by Vodafone NZ);
- additional amortisation of $84.2 million in FY17. As a consequence of the fair value adjustments arising from the accounting for the Proposed Transaction[52], $421 million will be allocated to Sky TV brands and customer relations. These intangibles will need to be amortised for accounting purposes;
- inclusion of $10.6 million in FY16 and $12.8 million in FY17 for one-off items such as the Sky TV transaction fees, integration fees and restructuring charges;
- incremental interest expense on the additional borrowings to fund the purchase price payable to Vodafone Group ($1,250 million) at a rate of 4.2%; and
- the only adjustments in relation to synergies are to assume in FY17:
  - $1.2 million of net integration costs; and
  - $37.5 million of integration related capital expenditure.

[52] Because Vodafone Group will hold a controlling 51% shareholding in the Combined Group, the accounting for the Proposed Transaction is on the basis that Vodafone Group is acquiring Sky TV. The accounting for fair value adjustments includes $421million for Sky TV brands and customer relations and additional Sky TV goodwill of $447 million.

Overall revenue and costs are relatively flat over the period FY16 to FY17 (with the reduction in EBIT due to the amortisation of acquired brands and customers). Movements contributing to these trends in revenue and costs are related to each business unit and are discussed in Sections 5 and 7 of this report as well as in the Explanatory Memorandum.

9.4 Dividends

Sky TV has historically paid an annual dividend of around 29 to 30 cents per share (with a policy to pay at least 50% of earnings). The current intention is that the Combined Group will have a policy of paying out 85-100% of free cash flow subject to the Board's assessment of the current and future needs of the business and maintenance of an appropriate and prudent balance sheet.

9.5 Financial Position

The pro forma financial position of the Combined Group as at 1 July 2016 and 30 June 2017 (assuming that the Proposed Transaction occurred on 1 July 2016) are set out in the Explanatory Memorandum and are summarised in the table below:

Combined Group – Pro Forma Financial Position ($ millions)		
	As at	
	1 July 2016	**30 June 2017**
Trade and other receivables	305.3	315.8
Programme rights inventory	78.7	74.8
Inventories	29.4	30.9
Derivative financial instruments (net)	8.8	3.8
Trade and other payables	(595.5)	(609.8)
Current provisions	(4.6)	(6.4)
Income tax payable	(14.3)	(13.7)
Net working capital	**(192.2)**	**(204.6)**
Property, plant and equipment	1,358.1	1,342.2
Investments	9.4	9.4
Intangible assets	720.4	573.3
Goodwill	2,031.5	2,031.9
Non-current provisions	(30.1)	(20.1)
Deferred tax (net)	(139.4)	(102.8)
Derivatives (net)	13.1	13.2
Funds employed	**3,770.8**	**3,642.5**
Borrowings	(1,296.6)	(1,520.2)
Bonds	(298.6)	(98.3)
Cash and cash equivalents	20.0	74.1
Net borrowings	**(1,575.2)**	**(1,544.4)**
Outside equity interests	(1.9)	(2.2)
Net assets	**2,193.7**	**2,095.9**

Source: Explanatory Memorandum

The Combined Group pro forma financial position represents the addition of the forecast pro forma financial statements of Sky TV and Vodafone NZ with the following adjustments:

- intercompany receivables and payables of $9.2 million have been eliminated;
- it is assumed that, for accounting purposes, the Proposed Transaction will give rise to:
  - additional goodwill of $447 million, which together with existing Vodafone NZ goodwill of $159 million), will increase the Combined Group's pro-forma goodwill to $2,031 million as at 30 June 2016;

- value attributed to brands and customer relations of $421 million. This balance reduces in FY17 as a result of amortisation ($84.2 million); and
- deferred tax adjustments of $117.9 million; and

- debt includes $1,250 million in new borrowings to fund the payment to Vodafone Group.

9.6 Cash Flow

The pro forma forecast cash flow of the Combined Group for FY16 (assuming that the Proposed Transaction occurred on 1 July 2015) and for FY17 (assuming that the transaction occurred on 1 July 2016) are set out in the Explanatory Memorandum and are summarised in the table below:

Combined Group – Pro Forma Forecast Operating Cash Flow ($ millions)		
	Year end 30 June	
	2016	**2017**
EBITDA	**778.6**	**773.5**
Change in working capital and other adjustments	(20.6)	(4.8)
	758.0	768.7
One off items (add back)	10.6	12.8
	768.6	781.5
Capital expenditure (adjusted and excluding integration)	(342.8)	(314.2)
Adjusted operating cash flow	**425.8**	**467.3**
Net interest paid		(71.7)
Tax paid		(97.4)
Adjusted free cash flow		**298.2**
Statistics		
Adjusted free cash flow per share (cents)		*37.5*

Source: Explanatory Memorandum

The Combined Group cash flows represents the addition of the pro forma forecast cash flows for Sky TV and Vodafone NZ with the following adjustments:

- one-off items in FY16 and FY17 have been added back;
- capital expenditure relating to *MY SKY* decoders has been moved from FY16 to FY17 as the purchases had been accelerated into FY16 which would not have occurred in normal circumstances;
- capital expenditure relating to integration of Sky TV and Vodafone NZ has been excluded as it is not part of ongoing capital expenditure for the businesses; and
- interest expense and taxation expense incorporate the impact of the transaction (i.e. additional interest expense and associated tax effects).

10 Evaluation of the Proposed Transaction (Takeovers Code)

10.1 Summary

The growing popularity of OTT services delivering video on demand via high speed broadband internet has fundamentally changed the competitive position of pay television operators around the world. The effect for Sky TV has been increasing rates of subscriber churn and a flattening of revenue growth. At the same time, heightened global competition for content has driven up programming costs, resulting in a projected fall in Sky TV's earnings across the FY16 and FY17 financial years. The Proposed Transaction is expressly designed to address the deterioration in Sky TV's strategic position. It will be transformational for Sky TV, creating a business unique in the New Zealand market place. The Combined Group will have market leading positions in mobile telephony and pay television, a strong fixed line telephony and broadband internet business, extensive infrastructure and the leading content offering in the New Zealand market.

The combination of the Sky TV and Vodafone NZ businesses is expected to generate meaningful cost synergies over time, although in the short term the cost synergies will be modest. More importantly, it will materially improve the Combined Group's competitive position and, over time, should allow the capture of significant revenue synergies. The Combined Group will be able to cross-sell a much broader range of services across the Sky TV and Vodafone NZ subscriber bases, reduce subscriber churn through bundled service offerings, and deliver incremental revenue through new offerings. Sky TV has estimated that the NPV of the cost and revenue synergies is approximately $850 million, although the bulk of these synergies will only be captured in the medium to longer term.

The Proposed Transaction will result in other, less easily quantifiable benefits. In particular, as part of the Vodafone Group, the Combined Group will have the benefit of management support and expertise based on the Vodafone Group's international operations, and access to the Vodafone Group's global technology base. Given its size and diversification, the business should have the capacity to respond effectively to changes in technology and consumer preferences over the medium to longer term. It should be able to access capital (at least debt capital) on attractive terms.

The Combined Group will have much higher debt levels than Sky TV on a standalone basis, with aggregate debt of around $1.6 billion immediately following the Proposed Transaction. However, the level of gearing will be within acceptable limits and will arguably represent a more efficient capital structure than Sky TV's current capital structure.

Overall, the Proposed Transaction will result in the creation of a robust, strongly capitalised business with a far stronger strategic position than that enjoyed by Sky TV in its current form. The improvement in Sky TV's strategic positioning will have some direct short term benefits. More importantly, however, it will materially address the longer term risks associated with Sky TV's standalone business model as a "pure play" provider of video entertainment.

A threshold issue for Sky TV shareholders is whether shares in the Combined Group can be expected to trade at prices higher than shares in a standalone Sky TV. Grant Samuel has considered factors including:

- the potential for a market re-rating to reflect the stronger strategic position and business characteristics of the Combined Group;
- the nature, quantum and timing of the synergies expected to be generated by the combination of the Sky TV and Vodafone NZ businesses;
- the expected increase in underlying free cash flow and dividends per share following the Proposed Transaction;
- the expected substantial fall in earnings per share (reflecting the significant non-cash depreciation and amortisation charges associated with Vodafone NZ's asset base and the effect of merger accounting);

- the earnings multiples on which broadly comparable businesses are trading in New Zealand and in other markets; and
- the impact on investor sentiment of Vodafone Group's controlling stake (given that it is likely to reduce the prospect of a takeover offer from any party other than Vodafone Group).

Having regard to these factors, Grant Samuel believes that it is reasonable to expect that, over time, shares in the Combined Group will trade at meaningfully higher prices than shares in a standalone Sky TV. In the shorter term, the positive effect may be more modest, reflecting the longer dated timing of many of the synergies and likely investor caution regarding the recognition of revenue synergies before they have been delivered.

As a result of the Share Issue, Vodafone Group will hold 51% of the shares in the Combined Group. While the Proposed Transaction is structured as an acquisition of Vodafone NZ, it is effectively an acquisition of Sky TV by Vodafone Group. In this context, Sky TV shareholders are potentially giving up the opportunity to receive a takeover premium (through an actual takeover offer for Sky TV by Vodafone Group or by some third party). By way of compensation, Sky TV shareholders will benefit to the extent that shares in the Combined Group trade at higher prices than shares in a standalone Sky TV. Comparison of the opportunity cost of approving the Proposed Transaction (i.e. foregoing the possibility of receiving a fully priced takeover offer) with the potential benefit in terms of improved share prices is essentially judgemental:

- there are likely to be very few parties interested in an outright acquisition of Sky TV, at least in the short term. In this context any estimate of the value potentially realisable through a takeover offer may be little more than theoretical; and
- there is nothing to prevent any third party that is interested in an acquisition of Sky TV from submitting an alternative proposal before completion of the Proposed Transaction.

There is at least a risk that Sky TV shareholders are receiving only partial compensation for the passing of control to Vodafone Group. On the other hand, in Grant Samuel's view, Sky TV shareholders will clearly be better off if the Proposed Transaction proceeds than if Sky TV continues as a standalone entity.

Grant Samuel has valued Vodafone NZ in the range $3,400-3,700 million. The Consideration for the acquisition is $1,250 million in cash and 405.0 million shares in Sky TV. Given that the shares to be issued to Vodafone Group will confer control over Sky TV, it is appropriate to value the share component of the Consideration on the basis of Sky TV's estimated full underlying value ($4.95-5.46 per share). On this basis, the Consideration has an aggregate value of $3,255-3,463 million, slightly less than the estimated value of Vodafone NZ. This acquisition analysis suggests that the Proposed Transaction is on attractive terms for Sky TV.

The merits of the Proposed Transaction may also be assessed by merger analysis, by comparing the proportionate contribution of value by Sky TV to the Combined Group with the shareholdings in the Combined Group. Sky TV shareholders will hold in aggregate 49% of the shares in the Combined Group. On the basis of Grant Samuel's estimates of value, Sky TV will be contributing approximately 46-47% of the value of the Combined Group. Sky TV shareholders' aggregate shareholding will be marginally greater than their proportionate contribution of value, suggesting that the Proposed Transaction terms are favourable to Sky TV shareholders.

There are various risks and disadvantages associated with the Proposed Transaction, including ongoing risks associated with the Vodafone NZ business and the achievement of its projected earnings growth, business integration risks, the Combined Group's on-going reliance on the Vodafone Group, transaction costs and other matters. However, in Grant Samuel's view, these risks and disadvantages are outweighed by the benefits of the Proposed Transaction.

The effective price at which shares are to be issued to Vodafone Group under the Share Issue is equal to or greater than the estimated underlying value of Sky TV on a per share basis.

Accordingly, Grant Samuel has concluded for the purpose of the NZX Listing Rules that the terms of the Share Issue are fair.

10.2 Rationale for the Proposed Transaction

As the leader in the provision of video entertainment in New Zealand, Sky TV has been able to generate continued growth in revenue and earnings over many years. However, the increasing availability of high speed broadband internet and the entry into the New Zealand market of Netflix in March 2015 has resulted in a fundamental deterioration in Sky TV's strategic position. The competition from Netflix and other OTT video providers has seen an increase in Sky TV's subscriber churn rates, an absolute decline in subscriber numbers and pressure on subscriber pricing.

On 6 May 2016, Sky TV advised the market that for the first time it is forecasting a fall in subscriber numbers. It announced a predicted 20,000 net drop in subscriber numbers for FY16, comprising a reduction of 45,000 core residential customers offset by a 25,000 increase in other subscribers, including *NEON* and *FAN PASS* subscribers. At the same time, growing competition for content continues to drive up programming costs. The effect of the loss of subscribers, the resulting flat revenue and increased programming costs is a forecast decline in earnings in FY16 and FY17. The Sky TV share price fell by more than 25% in the days following the 6 May 2016 announcement, reflecting market recognition of the more challenging competitive environment that Sky TV now faces.

The Proposed Transaction is a direct response to the deterioration in Sky TV's strategic position and will, in a single step, transform Sky TV's competitive position in the New Zealand market. It will become the only participant with meaningful positions across all relevant market sectors. The Combined Group will have market leading positions in the mobile telephony and video entertainment sectors and strong fixed line broadband and telephony businesses. As well as holding the leading portfolio of video content (including rights to all the most popular New Zealand sports), the Combined Group will own an extensive infrastructure suite, including mobile spectrum, local fixed line networks in Wellington, Kapiti Coast and Christchurch, an inter-city fibre backbone, access to international data cables and satellite transmission rights. It will be well equipped to take advantage of the opportunities afforded by the roll-out of the UFB network across New Zealand.

The Combined Group will be a fully integrated telecommunications, media and entertainment company in New Zealand, with almost $3 billion in annual revenue, and will be one of the larger companies listed on the NZX.

10.3 Synergies

The combination of the Sky TV and Vodafone businesses is expected to yield meaningful synergies. The existing arrangements between Sky TV and Vodafone NZ whereby the two companies have marketed each other's products have already generated certain benefits. However, the much deeper integration and the complete alignment of interests that will result from the Proposed Transaction are expected to deliver significantly greater synergies.

Sky TV and Vodafone NZ management have completed a detailed review and quantification of the likely synergies, including an assessment of both cost and revenue synergies. The Explanatory Memorandum discloses an estimate of the total value of the synergies (on an NPV basis) of $850 million, consisting of $415 million for operating and capital cost synergies and $435 million for revenue synergies.

The expected cost savings in the short term are relatively modest, amounting to around $18 million per annum within the first three years following the Proposed Transaction. One-off implementation costs of approximately $80 million are expected to be incurred, with $37.5 million of integration capital expenditure and $1.8 million of integration costs incurred in the first year following the Proposed Transaction. Cost savings are expected to include both corporate costs and

operational efficiencies reflecting the increased scale of the Combined Group and the rationalisation of duplicated operational functions, especially in back office and support functions. Examples of duplicated operational functions where cost savings should be available include branch services, advertising, direct marketing, payments/billings and collections, and IT. The cost savings are expected to increase in the medium term, largely through opportunities to rationalise Sky TV's distribution costs by accessing the Vodafone NZ broadband network and through utilising Vodafone NZ's hardware.

The Proposed Transaction will provide opportunities to optimise network infrastructure for the combined business. The Proposed Transaction will allow for a unified approach to network configuration, providing capital expenditure and operating expenditure synergies and allowing for content delivery across a range of platforms. In particular, there should be opportunities to realise significant capital expenditure synergies through rolling out less costly and more capable set top boxes, based on Vodafone Group technology and purchasing power. These synergies are only expected to be realised to any material extent over the medium term, once the fibre and other broadband take-up by consumers allows the installation of next generation set top box and delivery platforms.

Sky TV expects that, over time, the Proposed Transaction will generate material revenue synergies. These are expected to include:

- opportunities to cross-sell the full range of products of the Combined Group across the Sky TV and Vodafone NZ customer bases. In particular, there should be opportunities to cross-sell broadband and mobile services into the Sky TV customer base and pay television to the Vodafone NZ customer base. In the medium term, as more subscribers watch Sky TV content over the Vodafone NZ network, the Combined Group will be able to capture user data to assist in better targeting promotions, marketing new services and improving the customer experience;
- the creation and delivery of differentiated bundled products including content offerings to the Vodafone NZ customer base, providing a competitive advantage relative to other "pure play" telecommunications providers;
- the development of new products, particularly based on the delivery of video to mobile devices; and
- a reduction in churn rates through the development and sale of attractively priced bundled triple-play and quad play products. In particular, the ability to offer mobile is an important benefit for Sky TV. On the other hand, bundling is also expected to result in some revenue losses as existing customers who currently use the full suite of services on an unbundled basis transition to bundled pricing.

The development of a broader range of bundled offerings and new products will allow the Combined Group to target not only the existing customer bases of Sky TV and Vodafone NZ, but also a new audience of consumers that are currently not customers of either company.

Vodafone NZ has had experience in integrating business acquisitions, including the acquisition of TelstraClear and, more recently, WorldxChange. In both cases, Vodafone NZ advises, total synergies have exceeded initial expectations. However, the achievement of synergies is inherently uncertain. There is a risk that synergies may not be realised to their full extent or at all, or that they take longer to realise than anticipated. The competitive response of other industry participants to the Proposed Transaction cannot be predicted and may result in the erosion of some or all of the synergy benefits expected to be realised. Even if the synergies are realised, there is a risk that competitive conditions could result in the benefits being passed on to consumers rather than delivering enhanced returns for shareholders of the Combined Group.

10.4 Strategic and Other Benefits

The Proposed Transaction should deliver further strategic benefits in addition to the quantifiable cost and revenue synergies that Sky TV expects to realise. The key strategic issue for Sky TV is that it is a "pure play" pay television operator in a world in which convergence is increasingly

demanding of participants the ability to deliver comprehensive and integrated telecommunications and entertainment solutions.

The relatively small size of the New Zealand market and Sky TV's strong market positioning (primarily based on its highly attractive programming) may mean that Sky TV is less vulnerable to industry structural change than are (for example) pay television operators in the United States markets. However, over time Sky TV will continue to be exposed to a variety of competitive threats, some of which may reflect technological development or industry dynamics not yet apparent. At worst, these might ultimately result in a material degradation of a standalone Sky TV's ability to compete with other content providers and a significant fall in profitability. The Proposed Transaction should give the Combined Group the capacity, flexibility and resilience to respond to changing industry dynamics over the medium to longer term. In the shorter term, whereas the roll-out of the UFB is arguably a threat to Sky TV on a standalone basis (because it will accelerate consumer access to OTT and other internet-based content), for the Combined Group the UFB roll-out will also be an opportunity. The Combined Group should be able to use the UFB to deliver both Sky TV's traditional programming and new content on commercial terms not available to Sky TV on a standalone basis.

At an operational level, the Combined Group will have the management capability, breadth of infrastructure and other resources to allow it to respond optimally to changing competitive dynamics, technological developments or regulatory change. The Combined Group will have access to the management expertise and global experience of the broader Vodafone Group, and in particular its experience of the challenges and opportunities associated with telco/pay television convergence in the United Kingdom, multiple markets across Europe, South Africa and India. The Combined Group will have the benefit of the management systems and intellectual property developed over time within the Vodafone Group, and opportunities to leverage Vodafone Group technological developments (e.g. in the development of set top boxes) to deliver new products at lower costs.

At a financial level, the Combined Group will be a substantially larger business than Sky TV on a standalone basis, with projected EBITDA for FY17 of approximately $775 million. Given its size, profitability and diversified range of activities, it should be able to access debt capital on favourable terms. When and if necessary, it should have the capacity to fund capital investment programmes, respond to price based competition or take whatever other actions are necessary to respond to changes in the future market environment.

10.5 Impact on Capital Structure

Sky TV will fund the $1.25 billion cash component of the consideration by drawing down additional debt. As a result, the pro forma net debt of the Combined Group as at 1 July 2016 will be approximately $1.6 billion. The following table shows the impact of the additional debt on the key credit metrics for the Combined Group:

Impact on Key Credit Metrics (times)		
	Sky TV	**Combined Group**
Interest Cover (FY17) (Adjusted EBITDA/net interest)	17.3	11.0
Interest Cover (FY17) (Adjusted EBIT/net interest)	11.5	4.1
Leverage Ratio (FY17) (net debt[53]/Adjusted EBITDA)	1.1	2.0
EBITA Leverage Ratio (FY17) (net debt[53]/Adjusted EBITA)	1.1	4.1
EBIT Leverage Ratio (FY17) (net debt[53]/Adjusted EBIT)	1.6	5.4
Gearing (net debt[53]/enterprise value)[54]	15.4%	27.4%

The Combined Group will be significantly more highly geared than Sky TV on a standalone basis. The Combined Group's leverage ratio (pro forma net debt/FY17 pro forma Adjusted EBITDA) of 2.0x is more than twice the leverage ratio for Sky TV on a standalone basis (1.1x). The increase in leverage ratios calculated as net debt/Adjusted EBIT is even more significant, although this measure is less meaningful, given the material non-cash depreciation and amortisation deductions from projected EBIT for the Combined Group. Overall, there will be a clear increase in the financial risk inherent in Sky TV's capital structure.

However, the Combined Group's credit metrics (on completion of the Proposed Transaction) will remain within reasonable levels. In particular, on the basis of its projected interest cover and leverage ratios, the Combined Group should have the credit characteristics of an investment grade credit. Arguably, Sky TV's existing low level of gearing is sub-optimal (Sky TV has previously explored capital management initiatives) and the Proposed Transaction will result in the establishment of a more efficient capital structure. The Combined Group expects to generate sufficient free cash flow to be able to progressively amortise its debt, should that be the best use of available free cash flow at the time.

10.6 Impact on Share Price

A key consideration for Sky TV shareholders is whether the Proposed Transaction is likely to result in shares in the Combined Group trading at prices higher than shares in a standalone Sky TV. Judgements regarding the price at which shares in the Combined Group might trade are not straightforward. Grant Samuel has considered the following:

- the Proposed Transaction will materially improve Sky TV's strategic position and should lead to a re-rating of shares in the Combined Group;
- Sky TV has disclosed that the estimated NPV of the expected cost and revenue synergies is approximately $850 million, of which around $435 million is contributed by revenue synergies. This represents a significant potential value uplift in the context of the aggregate standalone values of Sky TV and Vodafone NZ – approximately 15% relative to the aggregate enterprise values of $6.0 billion (based on the transaction values agreed by Sky TV and Vodafone NZ) and approximately 21% relative to the equity values of $4.4 billion);
- on the other hand, investors are likely to significantly discount much of this potential value uplift, particularly as it relates to revenue synergies, until the Combined Group is able to demonstrate the achievement of the projected synergies;

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[53] Based on the pro forma debt less cash at 1 July 2016 for Sky TV (stand-alone) and Combined Group respectively.

[54] Based on Sky TV's closing share price of NZ$4.47 as at 7 June 2016 for Sky TV, and Sky TV's post announcement closing share price of NZ$5.25 on 9 June 2016 for the Combined Group.

- the short term benefits of the Proposed Transaction (in terms of direct earnings improvements) will be limited. Aggregate cost savings (on an annualised basis) are projected at approximately $18 million by the third year after the Proposed Transaction. This is not significant in the context of projected EBITDA for the Combined Group for FY17 of approximately $775 million;
- underlying free cash flow per share for the Combined Group is expected to be slightly higher than for Sky TV on a standalone basis (increasing by 8% from 34.7 cents per share to 37.5 cents per share). However, this uplift is largely attributable to the effect of the additional gearing in the capital structure of the Combined Group. Sky TV could deliver a comparable uplift through some form of debt funded capital management;
- the Explanatory Memorandum states that it is "the Board's expectation that the Combined Group may be able to pay a higher dividend per share than would have been paid by Sky TV as a standalone company". The Board's current intention is to pay an annual dividend of 85-100% of free cash flow, subject to the Board's assessment of the current and future capital needs of the business and maintenance of an appropriate and prudent balance sheet. For FY17, this would equate to dividends of 31.9 to 37.5 cents per share;
- projected FY17 EPS is for the Combined Group is 18.3 cents per share, significantly less than the projected EPS for a standalone Sky TV of 32.1 cents per share. The reduction reflects both the significant non-cash depreciation and amortisation charges associated with the Vodafone NZ asset base (substantially in excess of projected capital expenditure levels) and further non-cash amortisation charges as a result of the merger accounting for the Proposed Transaction. Removing the non-cash charges resulting from the accounting for the Proposed Transaction and adjusting for one-off transaction and related costs results in projected underlying FY17 EPS for the Combined Group of 28.2 cents per share. Projected underlying FY17 EPS for Sky TV on a standalone basis (after adjusting for transaction costs) is 33.8 cents per share;
- while Sky TV's free float will not increase as a result of the Proposed Transaction, there may nevertheless be an increase in market liquidity. Sky TV is already a large company with a market capitalisation of approximately $1.6 billion and it is followed by most research brokers in New Zealand and Australia. It is in a number of indices, including the NZSX10 and ASX100 and has a broad base of institutional shareholders amongst its 8,000+ shareholders. Accordingly, it is a well traded stock. The Combined Group is likely to be more than twice the size of the standalone Sky TV, with a market capitalisation in excess of $3 billion (before any re-rating). At that size it will be around the 10th largest listed company in New Zealand and as such may attract an even greater level of investor, analyst and institutional interest (including those wishing to diversify their telecommunications exposures). These factors should contribute to increased share liquidity (even without any increase in the free float), which in turn could result in a positive market re-rating;
- Vodafone Group's 51% shareholding in the Combined Group, because it will materially reduce the likelihood of any fully priced change of control transaction for the Combined Group, may be seen by some investors as a negative. Other investors may take a favourable view of the role of Vodafone Group as a substantial cornerstone shareholder. Vodafone Group is one of the world's largest telecommunication companies, with a market capitalisation of approximately £58 billion. Unlike an investment or private equity shareholder that might reasonably be expected to reduce its shareholding over time, Vodafone Group is likely to be a committed long term shareholder and can bring a range of benefits (including in terms of access to management skills, systems and technology) to the Combined Group.

There are further factors that complicate judgements regarding the price at which shares in the Combined Group might trade in the short term following the Proposed Transaction. There have been material movements in the Sky TV share price in recent months. In the weeks ahead of Sky TV's half yearly profit announcement on 26 February 2016, Sky TV shares generally traded at around $4.50. Following the announcement, which disclosed slowing revenue growth, increasing costs and a 6% fall in EBITDA, Sky TV shares traded as low as $4.14 (on 1 March 2016).

Thereafter, notwithstanding that Sky TV released no further information regarding the trading outlook for the company, the share price rose to a recent high of $5.55 on 5 May 2016. On 6 May 2016, Sky TV announced that subscriber numbers were expected to fall significantly by the end of FY16 and commented that the loss of subscribers would adversely impact FY17 earnings compared to analyst consensus estimates. Following this announcement, the Sky TV share price fell to as low as $3.98 on 13 May 2016. Although Sky TV released no new information prior to the announcement of the Proposed Transaction, the Sky TV share price then increased steadily. Sky TV shares closed at $4.47 on 7 June 2016 (the last trading day before the announcement of the Proposed Transaction). Following the announcement of the Proposed Transaction on 9 June 2016, the Sky TV share price increased by 17.4%, with a closing price of $5.25.

The volatility of recent trading in Sky TV shares means that any forecast of future share prices is highly uncertain. Nonetheless, Grant Samuel believes that it is appropriate to expect that shares in the Combined Group will trade at higher prices than shares in a standalone Sky TV, although the share price uplift may be muted in the short term and may only become more significant as the Combined Group demonstrates the achievement of the projected synergies.

The following table sets out the earnings multiples implied by share prices for the Combined Group in the range $4.50-5.00[55]:

Implied Earnings Multiples – Combined Group

	Share Price Range ($)					
	4.50	**4.60**	**4.70**	**4.80**	**4.90**	**5.00**
Multiple of Adjusted EBITDA (times)						
FY16 (pro forma forecast)	6.5	6.6	6.7	6.8	6.9	7.0
FY17 (pro forma forecast)	6.5	6.6	6.8	6.9	7.0	7.1
Multiple of Adjusted EBITA (times)						
FY16 (pro forma forecast)	13.9	14.1	14.3	14.5	14.7	14.9
FY17 (pro forma forecast)	13.3	13.5	13.7	13.9	14.1	14.3
Multiple of EBITDA – Capex[56] (times)						
FY16 (pro forma forecast)	11.5	11.7	11.9	12.1	12.2	12.4
FY17 (pro forma forecast)	10.9	11.1	11.2	11.4	11.6	11.7

A trading range for shares in the Combined Group of $4.50-5.00 implies multiples of earnings that appear broadly consistent with the multiples on which peer group companies (including Spark) are trading (although Grant Samuel makes no forecast and gives no assurance as to this share price range or any other future share price for the Combined Group).

10.7 Control Issues

The Proposed Transaction will result in Vodafone Group owning 51% of the shares in the Combined Group. This is a controlling shareholding. The implications of the shareholding, combined with the terms of the SPA for the acquisition of Vodafone NZ, are as follows:

- Vodafone Group will be able to control the outcome of any ordinary resolution of Sky TV. Ordinary resolutions often relate to governance matters such as the approval of financial statements, appointment of auditors, election of directors and the consideration of material transactions. Vodafone Group will also be able to block any special resolution (requiring a 75% vote), although it will not be able to pass special resolutions without the support of other shareholders;

[55] Assumes pro forma net borrowings of $1,575 million.

[56] Adjusted EBITDA less Adjusted Capital Expenditure, where the adjustments relate to the once-off adjustments relating to the Proposed Transaction.

- five of the current directors of Sky TV will continue as directors of the Combined Group. Mr Peter Macourt, current chairman of Sky TV, will be initial chairman of the Combined Group and Mr John Fellett, Sky TV CEO, will be appointed CEO of Media and Content for the Combined Group. Vodafone Group will nominate the remaining four directors, including Mr Russell Stanners, who will be CEO of the Combined Group. In the future, given its 51% majority shareholding, Vodafone Group will have absolute control over the composition of the Board, subject to the need to comply with the NZX Listing Rule requirements in relation to independent directors;
- the prospects for shareholders in the Combined Group (and therefore for current Sky TV shareholders) of receiving a fully priced takeover offer will be materially reduced. At present Sky TV shares are widely held with the single largest shareholder owning 13.2%. There are no significant trade or strategic shareholders and no impediments to a takeover by a potential acquirer. Following the Proposed Transaction, any takeover offer from a third party could only proceed with the effective approval of Vodafone Group;
- Vodafone Group has agreed not to acquire any additional shares in the Combined Group (except in limited circumstances). However, this restriction does not apply if Vodafone Group makes a full or partial takeover offer for the Combined Group, to share acquisitions approved by the shareholders or to an acquisition by way of a scheme of arrangement; and
- the new Sky TV shares issued to Vodafone Group will be escrowed (i.e. are unable to be sold) until the date on which the Combined Group announces to NZX and ASX its preliminary FY17 financial results, except if there is a takeover offer to acquire 100% of the Combined Group.

The interests of Vodafone Group and minority shareholders should generally be aligned, and the interests of minority shareholders will in any event be protected by the independent directors on the Board of the Combined Group. However, it should be recognised that Vodafone Group will have, at least in a management and strategic sense, close to absolute control of the Combined Group (although there will be limits on its ability to effect changes that require the passing of a special resolution, requiring a 75% vote).

Sky TV shareholders will not receive a traditional "premium for control". Given the structure of the Proposed Transaction, Sky TV shareholders will not receive any direct consideration for the passing of control of Sky TV to Vodafone Group. Following the Proposed Transaction, there will be limited prospects of a takeover bid from any third party (although the possibility of a future mop up bid from Vodafone Group cannot be completely discounted). Accordingly, in approving the Proposed Transaction, Sky TV shareholders may be foregoing the opportunity to realise a full control premium for Sky TV at some time in the future.

Sky TV shareholders would be justified in foregoing a control premium if the commercial benefits of the Proposed Transaction and the market re-rating of Sky TV shares were such that Sky TV shares could be expected to trade at levels comparable to their control value prior to the Proposed Transaction (i.e. at a price corresponding to a value that included a control premium).

Grant Samuel has valued Sky TV on a standalone basis in the range $4.95-5.46 per share. This valuation range represents Sky TV's estimated full underlying value, including a premium for control. For Sky TV shareholders to be fully compensated for the loss of control that will result from the Proposed Transaction, shares in the Combined Group would need to trade in the short term at least at levels around $4.95.

A share price for the Combined Group of $4.95 would imply multiples of 7.1 times forecast FY17 Adjusted EBITDA, 14.7 times forecast FY17 Adjusted EBITA and 11.7 times forecast EBITDA-Capex[57]. On this basis a share price of around $4.95 is not inconceivable: Spark, New Zealand's largest telecommunications company, is trading at higher EBITDA multiples (7.5 times) and EBTIDA-Capex (12.3 times) but lower EBITA multiples (13.2 times). On balance, however,

[57] Adjusted EBITDA less Adjusted Capital Expenditure, where the adjustments relate to the once-off adjustments relating to the Proposed Transaction.

Grant Samuel believes that there is at least some risk that shares in the Combined Group would trade below $4.95 (at least initially). In turn, this suggests that Sky TV shareholders could be no more than partially compensated for the passing of control of the Company to Vodafone Group.

On the other hand:

- judgements regarding the impact of the Proposed Transaction on the Sky TV share price are by their nature subjective and subject to considerable uncertainty;
- there are at most a limited number of potential acquirers of Sky TV. It is possible that at the current time there are no parties interested in (and with the financial capacity to complete) an acquisition of 100% of Sky TV (when News Corporation sold down its 43.7% shareholding in Sky TV in March 2013, it did so by way of a sell down to institutional shareholders, presumably because it could find no party interested in acquiring the stake and bidding for 100% of Sky TV). In the absence of actual alternative acquirers of Sky TV, the notion of an opportunity foregone to realise full underlying value is little more than theoretical; and
- to the extent that there are alternative potential acquirers of Sky TV, they will have an opportunity to respond with competing proposals prior to the shareholder's meeting to approve the Proposed Transaction.

10.8 Acquisition Analysis

While the effect of the Proposed Transaction at the operational level will be a merger between Sky TV and Vodafone NZ, from a legal perspective the Proposed Transaction involves the acquisition of 100% of Vodafone NZ.

The Consideration for the acquisition is $1.25 billion in cash and 405.0 million new Sky TV shares. On the basis of an estimated underlying value of Sky TV in the range $4.95-5.46 per share, the Consideration has aggregate value of $3,255-3,463 million:

Value of the Consideration		
	Low	**High**
No. of shares to be issued (millions)	405.0	405.0
Underlying value per share($ per share)	$4.95	$5.46
Aggregate value of shares ($ millions)	**2,005**	**2,213**
Cash consideration ($ millions)	1,250	1,250
Consideration value ($ millions)	**3,255**	**3,463**

Grant Samuel has valued Vodafone NZ in the range $3,400-3,700 million. On the basis of these valuations, Sky TV is paying a price that is slightly lower than the value of Vodafone NZ. Accordingly, the terms of the Proposed Transaction are favourable to Sky TV (while recognising that this analysis does not take into account the change of control consequences of the Proposed Transaction).

10.9 Merger Analysis

The Proposed Transaction can also be assessed on the basis of merger analysis. The following table shows the contributions of estimated underlying value to be made by shareholders of Sky TV and Vodafone NZ to the Combined Group. The underlying value to be contributed by Vodafone NZ has been reduced by the $1,250 million of cash that is to be paid to Vodafone Group:

Relative Contributions – Underlying Value Analysis ($ millions)			
	Report Section	Grant Samuel Estimates of Value	
		Low	High
Underlying Value – Sky TV	6.1	**1,926**	**2,126**
Underlying Value – Vodafone NZ	8.1	**2,150**	**2,450**
Relative Value Contributions – Sky TV		47.3%	46.5%
Relative Value Contributions – Vodafone NZ		52.7%	53.5%

Based on Grant Samuel's valuations, Sky TV shareholders are contributing approximately 46-47% of the aggregate underlying value of the Combined Group. Sky TV shareholders will collectively hold 49% of the shares in the Combined Group.

Estimates of underlying value are to some extent subjective. Nevertheless, on the basis of Grant Samuel's analysis, the collective interest to be held by Sky TV shareholders in the Combined Group is consistent with, and arguably greater than, their proportionate contribution of value to the Combined Group. On this basis, the terms of the Proposed Transaction are arguably attractive to Sky TV shareholders.

10.10 Terms of the Share Issue

Under the terms of the Proposed Transaction, Sky TV will issue 405.0 million new shares to Vodafone Group. Based on Grant Samuel's valuation of Vodafone NZ in the range $3,400-3,700 million, the effective issue price is in the range $5.31-6.05 per share:

Effective Share Issue Price		
	Low	High
Valuation of Vodafone NZ ($millions)	3,400	3,700
Less: Cash portion of the Consideration ($millions)	1,250	1,250
Value for share issue ($millions)	**2,150**	**2,450**
No. of shares issued (millions)	405	405
Effective issue price ($ per share)	**$5.31**	**$6.05**

The effective share issue price of $5.31-6.05 is at a premium to Grant Samuel's estimate of the underlying value of Sky TV which is in the range $4.95-5.46 per share. In effect, Vodafone Group is paying a price for its 51% shareholding at or above full underlying value, although any premium to underlying value does not accrue for the benefit of Sky TV shareholders directly, but is rather shared by all shareholders of the Combined Group (including Vodafone Group). The effective share issue price of $5.31-6.05 represents a substantial premium to recent Sky TV share prices, as follows:

Premiums Relative to Share Price Pre Announcement			
		Implied Premium	
	Price/VWAP	Low	High
Effective issue price ($ per share)		**$5.31**	**$6.05**
Last Price (7 June 2016)	$4.47	18.8%	35.3%
One week VWAP (to 7 June 2016)	$4.59	15.6%	31.7%
One month VWAP (to 7 June 2016)	$4.25	24.8%	42.2%
Three month VWAP (to 7 June 2016)	$4.78	11.1%	26.5%

10.11 Alternatives

Sky TV shareholders could choose to vote against the Proposed Transaction, either on the basis that they preferred to be shareholders in a standalone Sky TV or in the expectation that they might realise superior value through some alternative change of control transaction in the future.

The immediate consequence of a decision to reject the Proposed Transaction and to pursue a standalone strategy would be the reversal of any share price appreciation that followed the announcement of the Proposed Transaction. Sky TV shares traded 17.4% higher on the day that the Proposed Transaction was announced to close at $5.25 (although there is a risk that this higher share price will not be maintained). Given the additional information regarding Sky TV's standalone trading prospects set out in the Explanatory Memorandum (Sky TV's earnings forecasts for FY16 and FY17 show a significant decline relative to earnings for FY15), it is conceivable that, in the absence of the Proposed Transaction or some similar transaction, Sky TV shares could trade in the short term at significantly lower levels. Following Sky TV's announcement of 6 May 2016 regarding falling subscriber numbers and the consequent impact on FY17 earnings, Sky TV shares traded down to levels around $4.00.

The longer term consequences of a decision to reject the Proposed Transaction are less clear. Sky TV has delivered strong shareholder returns over a number of years. However, as reflected in the recent sharp falls in its share price, Sky TV's outlook is now more subdued. It faces a challenging subscriber growth environment (due in part to competition from OTT providers), higher content costs (particularly for live sport) and capital investment requirements associated with upgrading the functionality of its set top boxes. Its share price is exposed to the dual impacts of lower short-term earnings and lower valuation multiples for dedicated "pure play" pay television businesses. Nevertheless, Sky TV is a very successful and privileged business. It remains the leading source of premium television content in New Zealand with key sports properties in New Zealand secured for a number of years. There is little doubt that Sky TV could continue to operate profitably on a standalone basis over the medium term, although there is likely to be continued pressure on its profitability and, potentially, its share price.

Judgements regarding the longer term prospects for a standalone Sky TV are problematic. It is conceivable that the recent subscriber losses could represent the worst of the impact of OTT services (i.e. that Netflix and other OTT providers have already reached close to their maximum market share) and that Sky TV could recommence subscriber and revenue growth, in part supported by its own growing OTT products. However, this would be a best case outcome. An equally plausible outcome would involve a continued loss of market share as the UFB rollout gave consumers improved access to OTT, combined with continued pressure on programming costs. Content could become increasingly difficult to secure, as growing market share gave OTT providers increased negotiating power, and there would be some risk of additional OTT entrants to the New Zealand market place. Without access to an integrated bundled product suite, Sky TV would become increasingly vulnerable to competition from telecommunications companies and other competitors. In a worst case, Sky TV could run the risk over the longer term of losing some of its key sports programming. The net effect could be a material drop in earnings and market value, as seen in other media sectors such as newspapers, other print media and free-to-air television.

It is possible to construct a variety of hypothetical but plausible outcomes for the long term future of a standalone Sky TV. The range of outcomes is potentially very wide. Shareholders in a standalone Sky TV would be exposed to numerous risks, some of which over time could potentially threaten the viability of the business. In Grant Samuel's view the strategic benefits of the Proposed Transaction are such that Sky TV shareholders will clearly be better off if the Proposed Transaction is implemented than if they continue as shareholders in a standalone Sky TV.

It is also possible that Sky TV shareholders may be able to realise superior value through some alternative change of control transaction in the future. However, there could be no assurance that any alternative proposal would be put to Sky TV shareholders, either in the immediate future or

over the longer term. There are very few potential acquirers of Sky TV with the strategic motivation and financial capacity to pay a full price for the company. In any event, there is nothing to prevent any potential alternative acquirer from announcing its interest in an acquisition of Sky TV at some time between the first announcement of the Proposed Transaction and the Sky TV shareholders' meeting at which shareholders will vote on the Proposed Transaction. While there are various deal protection mechanisms, including a termination fee and matching rights in favour of Vodafone Group, these would not be meaningful disincentives to a committed counter-bidder. In the absence of such a counter-offer, Sky TV shareholders could have some confidence that there are no superior alternative transactions involving some third party currently available.

10.12 Disadvantages and Risks

The Proposed Transaction does involve a number of disadvantages and risks in addition to its implications for control of Sky TV:

- the single largest risk for Sky TV shareholders is that the Vodafone NZ business may not deliver the level of earnings expected. The earnings of Vodafone NZ over recent years have been flat to marginally down (at the EBITDA level). Vodafone NZ is forecasting a growth in EBITDA in the short term, essentially premised on an improvement in the competitive environment and ongoing cost reduction initiatives. The improvement in profitability is credible, but will ultimately depend at least in part on the competitive behaviour of other participants in the New Zealand telecommunications sector. Aggressive price based competition from other participants, whether in response to the Proposed Transaction or otherwise, will not only threaten the achievement of the expected revenue synergies but also have the potential to reduce the underlying profitability of the Vodafone NZ business. Accordingly, while Sky TV has conducted extensive due diligence on the Vodafone NZ business, it should be recognised that the future profitability of the Vodafone NZ will be to some extent outside the control of the Combined Group, and could vary significantly from expectations;

- the fundamental rationale for the Proposed Transaction is that it will improve the strategic positioning of the Sky TV and Vodafone NZ businesses and consequently over time will result in improved earnings through the delivery of cost and revenue synergies. A significant proportion of the expected synergies are expected to result from the integration of back-office functions, combined sales and marketing initiatives and, over time, the optimisation of network infrastructure. Vodafone NZ has recent acquisition integration experience (e.g. TelstraClear and WorldxChange). However, the integration of the Sky TV and Vodafone NZ businesses will involve challenges of a substantially different scale, given the size and disparate nature of the businesses. There is at least some risk that the quantum of synergies finally realised will be less than current estimates, or that the synergies will take longer to realise than expected;

- while the proposed Board and management of the Combined Group are well credentialed, they have still to demonstrate their ability to work together as a new team;

- some Sky TV shareholders may prefer an investment in a "pure play" pay television operator, although the reality is that, even absent the Proposed Transaction, Sky TV would move towards a more converged model through its alliance with Vodafone NZ;

- the Proposed Transaction will result in the forfeiture of the imputation credit balances of both Sky TV and Vodafone NZ. Despite this, it is expected that the Combined Group will be able to pay fully imputed dividends (although there is some risk that, immediately following the Proposed Transaction, available imputation credits will not be sufficient to fully impute initial dividend payments);

- as part of the Proposed Transaction, the Combined Group will enter into a number of service and other agreements with the Vodafone Group. These include agreements under which the Vodafone Group will provide services relating to procurement, roaming and access to commercial functions, product sets and technology, information systems, shared services (such as finance and human resources) and other services. The Combined Group will be

reliant on Vodafone Group for the provision of these services. The agreements have an initial five year term (subject to certain exceptions). While they may be extended beyond their initial term, such extension may be on less favourable terms;

- the Combined Group (via a Branding Agreement and Branding Sub-Licence) will be entitled to use the *Vodafone* brand name and associated trade marks for a minimum period of ten years, for which the Combined Group will pay a brand royalty of $31.4 million per year. The brand royalty arrangement will be subject to renegotiation at the end of the ten year period and there is no guarantee that an agreement on comparable terms will be able to be reached;

- Sky TV expects that its total transaction costs for the Proposed Transaction will be $20 million, of which approximately $13 million will have been committed by the time shareholders vote on the Proposed Transaction; and

- under the SPA by which the Proposed Transaction will be effected, Sky TV will provide certain warranties and indemnities to Vodafone Group, including as to tax matters, and subject to customary time, monetary and other limitations. While such warranties and indemnities are arguably unusual for a public company transaction, the SPA provides for reciprocal warranties and indemnities from Vodafone Group in favour of Sky TV.

10.13 Other Matters

In assessing the Proposed Transaction, shareholders should also consider the following:

- the outcome of the shareholder vote on the Proposed Transaction is binary. If Sky TV shareholders vote in favour of the Proposed Transaction and the other conditions are satisfied, the Proposed Transaction will be implemented. If Sky TV shareholders did not pass the resolutions required to effect the Proposed Transaction, the Proposed Transaction would not proceed. Sky TV would continue to be a substantial independent company listed on the NZX and ASX, and no shares in the company would be allocated to Vodafone Group. The existing partnership programmes between Sky TV and Vodafone NZ would continue unaffected. There are no partial outcomes, such as an acquisition by Sky TV of less than 100% of Vodafone NZ, or potential variations to the cash and share components of the Proposed Transactions. The terms of the Proposed Transaction are set, and must be either rejected or accepted in their entirety by Sky TV shareholders;

- the Proposed Transaction is subject to conditions that are outside the control of Sky TV shareholders. These include the receipt of OIO and Commerce Commission approvals and no material adverse change or prescribed breach event occurring. The sequencing of the conditions is therefore of interest to Sky TV shareholders. The vote by Sky TV shareholders is likely to occur before the receipt of OIO or Commerce Commission approval and the conditions relating to prescribed breach events or material adverse changes will survive until completion. There is therefore no certainty that the Proposed Transaction will proceed until such time as those conditions have been satisfied;

- the top 20 registered shareholders of Sky TV own approximately 84% of the issued shares in the company. The support or otherwise of these shareholders will be instrumental in determining whether the Proposed Transaction is approved;

- if the Proposed Transaction is rejected by Sky TV shareholders or the other transaction conditions are not satisfied, the parties to the Proposed Transaction could theoretically elect to renegotiate the transaction terms. In that circumstance the process could start again and a new set of resolutions could to be put to Sky TV shareholders. However, such an outcome would appear unlikely given the complexity of the Proposed Transaction and the time and costs incurred to date. If the Proposed Transaction does not proceed, it would appear more likely that there will be no follow up transaction (at least for some time); and

- a consequence of the issuance of a substantial number of new shares in Sky TV is that the proportional ownership of existing Sky TV shareholders in the Combined Group will approximately halve. A shareholder owning say 5% of the issued shares in Sky TV will own approximately 2.5% of the issued shares in the Combined Group. This dilution effect should

have limited impact on minority shareholders of Sky TV when considered as individual shareholders.

10.14 Investment Decision

Grant Samuel has not been engaged to provide a recommendation to shareholders in relation to the Proposed Transaction, the responsibility for which lies with the directors of Sky TV. In any event, the decision whether to vote for or against the Proposed Transaction is a matter for individual shareholders, based on their own views as to value, their expectations about future market conditions and their particular circumstances including risk profile, liquidity preference, investment strategy, portfolio structure and tax position. Shareholders who are in doubt as to the action they should take in relation to the Proposed Transaction should consult their own professional adviser.

Similarly, it is a matter for individual shareholders as to whether to buy, hold or sell securities in Sky TV or the Combined Group. These are investment decisions upon which Grant Samuel does not offer an opinion and are independent of a decision on whether to vote for the Proposed Transaction. Shareholders should consult their own professional adviser in this regard.

11 Evaluation of the Issue Price and Terms (NZX)

Grant Samuel has been requested to provide an opinion in accordance with Listing Rule 1.7.2 of the NZX Listing Rules as to whether the price and the terms of the Share Issue to Vodafone Group are "fair" to Sky TV shareholders (other than those associated with Vodafone Group).

Pursuant to the Share Issue, Sky TV will issue 405.0 million new shares to Vodafone Group. The Share Issue will result in Vodafone Group holding a controlling shareholding in the Combined Group. Accordingly, in Grant Samuel's view, in this context assessment of "fairness" requires a comparison of the effective price at which shares will be issued under the Share Issue with the estimated underlying value (i.e. control value) of Sky TV.

Grant Samuel's estimate of the effective price at which shares will be issued under the Share Issue is set out below:

Effective Share Issue Price		
	Low	**High**
Valuation of Vodafone NZ ($millions)	3,400	3,700
Less: Cash portion of the Consideration ($millions)	1,250	1,250
Value for share issue ($millions)	**2,150**	**2,450**
Number of shares issued (millions)	405	405
Effective issue price ($ per share)	**$5.31**	**$6.05**

Grant Samuel has estimated that the underlying value of Sky TV is in the range $4.95-5.46 per share (see Section 6 of this report). Vodafone Group will pay an effective price for its 51% shareholding of $5.31-6.05 per share. The price to be paid by Vodafone is at least equal to and is arguably greater than Sky TV's full underlying value. On this basis, the consideration for the Share Issue is fair.

Under the SPA, Vodafone Group has entered into commitments that it will not:

- increase its shareholding in the Combined Group beyond the initial 51% level, except by way of a takeover offer to all shareholders, by way of a transaction approved by shareholders, or by way of an acquisition by way of a scheme of arrangement; and

- until the announcement of the preliminary Combined Group results for FY17, reduce its shareholding below 51% (except through acceptance of a takeover offer made to all shareholders).

These undertakings are for the benefit of Sky TV shareholders. They are neither onerous nor commercially disadvantageous given the context.

Accordingly, in Grant Samuel's opinion, for the purposes of Listing Rule 1.7.2 of the NZX Listing Rules the price and the terms of the Share Issue to Vodafone Group are "fair" to Sky TV shareholders (other than those associated with Vodafone Group). This opinion expressed is only for the benefit of the shareholders of Sky TV not associated with Vodafone Group.

In Grant Samuel's opinion the information to be provided by Sky TV to its shareholders is sufficient to enable holders of those shares to understand all the relevant factors, and make an informed decision as to the Share Issue. The grounds for Grant Samuel's opinion are set out in this Report.

Grant Samuel has obtained all information which it believes desirable for the purposes of preparing the report, including all relevant information which is or should have been known by any director of Sky TV and made available to the directors. The material assumptions on which Grant Samuel's opinion are based are set out in Sections 5, 6, 7 and 8 of this report.

12 Qualifications, Declarations and Consents

12.1 Qualifications

The Grant Samuel group of companies provide corporate advisory services in relation to mergers and acquisitions, capital raisings, debt raisings, corporate restructurings and financial matters generally in Australia and New Zealand and provides marketing and distribution services to fund managers in Australia. Grant Samuel & Associates Limited is the New Zealand arm of the corporate advisory business. One of its key activities is the provision of corporate and business valuations and the preparation of public expert and appraisal reports. Since inception in 1988, Grant Samuel and its related companies have prepared more than 500 public independent expert and appraisal reports.

The persons responsible for preparing this report on behalf of Grant Samuel are Stephen Cooper BCom (Hons) ACA CA(SA) ACMA, Stephen Wilson BCom, MCom (Hons) CA SF Fin, Simon Cotter BCom MAppFin F Fin, Peter Jackson BCom CA and Michael Lorimer BCA.

Each has a significant number of years of experience in relevant corporate advisory matters. Mr Wilson and Mr Cooper are representatives of Grant Samuel & Associates Pty Limited, an affiliated Australian company, under its Australian Financial Services Licence under Part 7.6 of the Australian Corporations Act. Christopher Smith BCom PGDipFin MAppFin, Jake Sheehan BCom(Hons) and Sophie Whitlam BCom BSc assisted in the preparation of the report.

12.2 Disclaimers

It is not intended that this report should be used or relied upon for any purpose other than as an expression of Grant Samuel's opinion as to the merits of the Proposed Transaction and the fairness of the pricing and terms of the issue of new shares to Vodafone Group. Grant Samuel expressly disclaims any liability to any Sky TV shareholder who relies or purports to rely on the report for any other purpose and to any other party who relies or purports to rely on the report for any purpose whatsoever.

Grant Samuel has had no involvement in the preparation of the Explanatory Memorandum issued by Sky TV and has not verified or approved any of the contents of the Explanatory Memorandum. Grant Samuel does not accept any responsibility for the contents of the Explanatory Memorandum (except for this report).

12.3 Independence

Grant Samuel and its related entities do not have at the date of this report, and have not had within the previous two years, any business or professional relationship with Sky TV or Vodafone NZ or any financial or other interest that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Proposed Transaction. For the purposes of rule 18(4)(b) of the Takeovers Code, Grant Samuel confirms that it has no conflict of interest that could affect its ability to provide an unbiased report.

Grant Samuel commenced analysis for the purposes of this report prior to the announcement of the Proposed Transaction. This work did not involve Grant Samuel participating in setting the terms of, or any negotiations leading to, the Proposed Transaction.

Grant Samuel had no part in the formulation of the Proposed Transaction. Its only role has been the preparation of this report.

Grant Samuel will receive a fixed fee for the preparation of this report. This fee is not contingent on the conclusions reached or the outcome of the Proposed Transaction. Grant Samuel's out of pocket expenses in relation to the preparation of the report will be reimbursed. Grant Samuel will receive no other benefit for the preparation of this report.

12.4 Declarations

Sky TV has agreed that it will indemnify Grant Samuel and its employees and officers in respect of any liability suffered or incurred as a result of or in connection with the preparation of the report. This indemnity will not apply in respect of the proportion of any liability found by a court to be primarily caused by any conduct involving gross negligence or wilful misconduct by Grant Samuel. Sky TV has also agreed to indemnify Grant Samuel and its employees and officers for time spent and reasonable legal costs and expenses incurred in relation to any inquiry or proceeding initiated by any person. Any claims by Sky TV are limited to an amount equal to the fees paid to Grant Samuel. Where Grant Samuel or its employees and officers are found to have been grossly negligent or engaged in wilful misconduct Grant Samuel shall bear the proportion of such costs caused by its action.

Advance drafts of this report were provided to Sky TV and its advisers. Advance drafts of Sections 3 and 7 of this report were also provided to Vodafone NZ. Certain changes were made to the drafting of the report as a result of the circulation of the draft report. There was no alteration to the methodology, evaluation or conclusions as a result of issuing the drafts.

12.5 Consents

Grant Samuel consents to the issuing of this report in the form and context in which it is to be included in the Explanatory Memorandum to be sent to shareholders of Sky TV. Neither the whole nor any part of this report nor any reference thereto may be included in any other document without the prior written consent of Grant Samuel as to the form and context in which it appears.

GRANT SAMUEL & ASSOCIATES LIMITED
10 June 2016