Return on Capital Employed

2013 Review of the NZ Listed Sector and NZ Crown Entities

June 2014

Armillary Limited
Level 6, Ballinger Building, 58 Victoria Street, PO Box 3156, Wellington 6140, New Zealand
www.armillary.co.nz • Phone +64 4 974 9269 • Fax +64 4 974 9282

Contents

Disclaimer

The information contained in this report has been prepared by Armillary Private Capital ('Armillary'). While the intention is to provide accurate information based on historical performance and market information, Armillary accepts no liability for any errors or inaccuracies in this report. The reader is advised to perform their own research to confirm the accuracy of the information contained in this report before relying on it for any investment decision making. This report has been prepared as a 'class service' as defined by the Financial Advisers Act and is general in nature.

Foreword

We are delighted to bring you the third Armillary Private Capital Return on Capital Employed (ROCE) report. This year we have added several more Crown Entities to our data set of NZX, NZAX, Unlisted and selected Crown entities bringing the total number of entities reviewed to 160. In addition to these, we have also reviewed a sample of 37 non-listed companies and compared their results to the overall dataset although we have not identified the entities individually.

The ROCE methodology we have used in this report was developed by Du Pont Corporation and therefore is not proprietary to us, although we are proponents. As it is simple to apply, anyone who understands the methodology can use it. We regularly use this methodology as a tool in our client engagements and in our financial training curriculum.

A benefit of the ROCE methodology is that the performance of an entity can be broken down into its components of profitability and activity, for deeper analysis. Profitability, as measured by EBIT margin, provides an indication of operational efficiency; activity, as measured by asset turn-over, provides an indication of balance-sheet efficiency. A full explanation of ROCE is included in Appendix 2.

This year's report includes an overview of the major sectors in the economy to demonstrate the effect that differences in business models has had in the subsequent profitability, activity and overall ROCE performance. We have then explored these differences in more depth by comparing the six electricity generator-retailers by ROCE and its components.

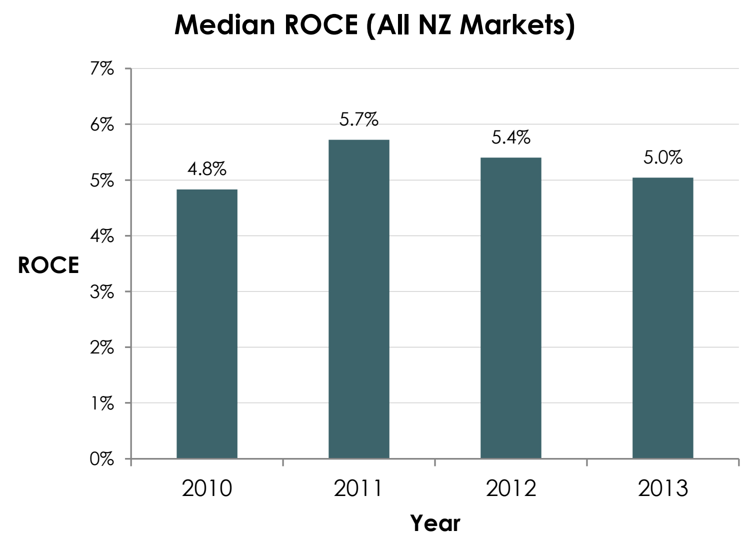
We continue to advocate the ROCE methodology in our work with businesses as a simple to use and easily understood tool for measuring business performance, identifying improvement strategies, creating incentive remuneration programs, and for testing budgets and forecasts, especially those applied in valuations. We also see the data and results in this report as providing useful benchmarks for business performance in the New Zealand market.

We trust that the insights contained in this report provide value to investors, business owners and managers alike.

David Wallace
Managing Director

Executive Summary

For this year's ROCE review of 2013 financial results we have added three additional Crown Entities to our review of companies with primary listings on the NZX, NZAX, and Unlisted. This has resulted in a 2013 sample size of 160. This number has increased slightly from 156 in 2012 and 159 in 2011, reflecting an increase in the total number of listings on the markets as well as the additional Crown Entities reviewed.



We have also compared these to a group of 37 non-listed companies that have been reviewed separately. The private company data has been considered separately from the main sample.

- The median performance in 2013 of 5.0% has continued the slide from the high seen in 2011. This result is less than common estimates of the market weighted average cost of capital for NZX listed companies of between 8% and 9%.

- Fronde was the top performer with a 2013 result of 247% reflecting high levels of operational leverage or activity.

- The 2013 top 10 performers are again dominated by service sector companies, all of which have high levels of activity (Revenue/Total Net Assets). The services sector as a whole is outperforming all other sectors with a median ROCE of 9.1%.

- The median ROCE of NZX 50 constituent companies (2013: 7.7%) lag that of companies in comparable international indices, slightly trailing that of Australia (2013: 8.5%) and Europe (2013:8.2%). Companies in the USA's S&P500 index significantly outperformed other countries reviewed with a 2013 ROCE of 14.5%.

- The 2013 median ROCE for the Crown Entities was 2.3%, with Airways Corporation recording the best performance from that group with 32.7%.

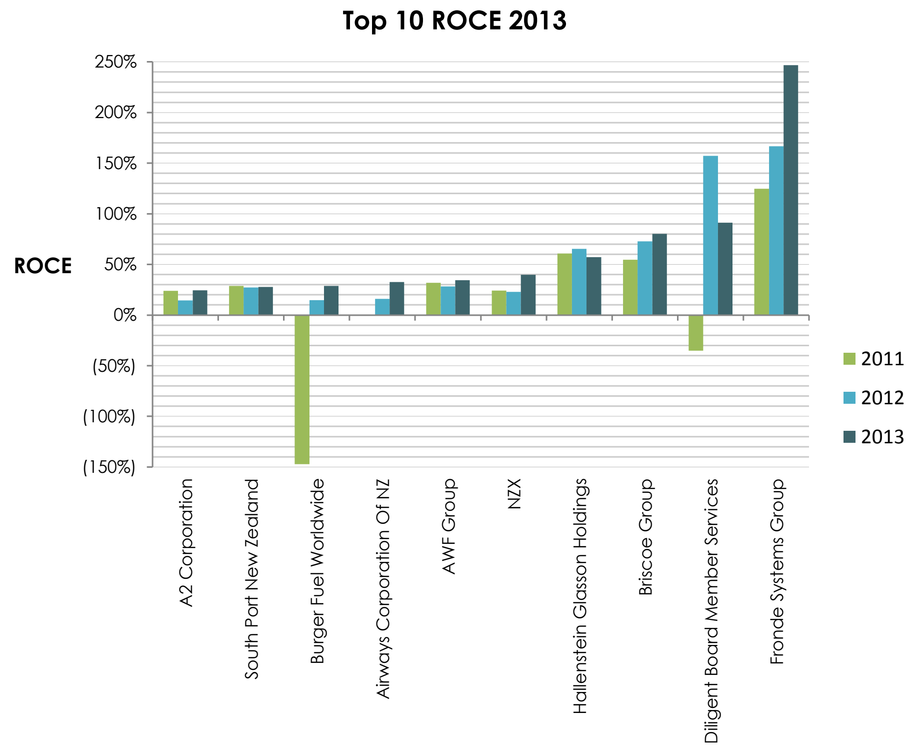
Top 10 Performers

The top 10 entities by 2013 ROCE performance are dominated by businesses that in general have high levels of activity (revenue/assets), like technology, retail and service-oriented businesses.

Fronde, as the top named performer, had a 6.4% Profitability ratio (up from 4.2% in 2012) and a 38.5x Activity Ratio in 2013 (down from 39.6x in 2012). Diligent Board Member Services ('Diligent'), last year's top performer[1], produced a 2013 Profitability Ratio of 16.0%, down from 19.5% in 2012 and its Activity Ratio of 5.7x was also down from 8.1x in 2012. After having restated its financial reports and incurred significant cost in doing so, Diligent's ROCE has slipped from 157.1% in 2012 to 91.3% in 2013.

The top three ROCE values achieved in 2013 for each of the four markets analysed were as follows;

- For the NZX market, Diligent 91.3%, Briscoe Group 80.2%, and Hallenstein Glasson 57.3%;
- For the NZAX market, Burger Fuel 28.9%, Just Water 15.0% and Livestock Improvement 10.4%;
- For the Unlisted market, the top three performers were Fronde 246.8%, Connexionz 24.0% and Skyline 13.6%; and
- Of the 9 Crown Entities sampled the top performers were Airways Corporation 32.7%, Metservice 14.8%, and Kordia 9.4%.



[1] Before restatement. Diligent has since restated its 2012 results which would place it as the second best performer for 2012. Comparative 2012 figures are as per the restatement.

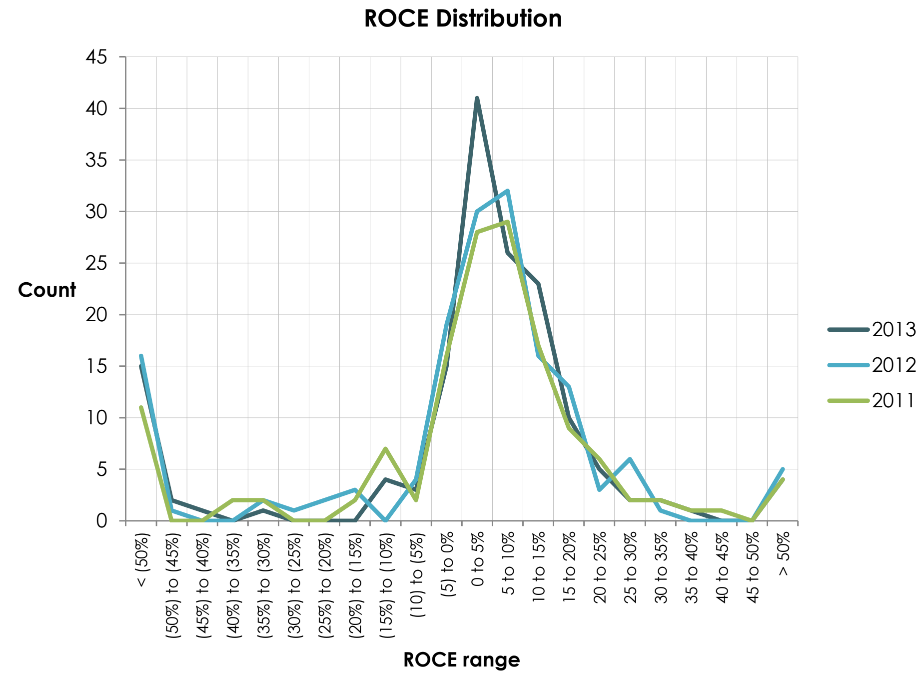
Distribution of Results

The ROCE returns for the last three years appear to follow a relatively normal distribution, with outliers at either side of a bell shaped curve.

– 76 companies (48%) achieved a 2013 ROCE greater than 5%, slightly down from 49% in 2012 and compared to 51% in 2011.

– 16 companies in 2013 achieved a ROCE of greater than 20% and 4 of those achieved a ROCE of greater than 50%.

– 41 companies had a negative ROCE in 2013 compared to 50 in 2012 and 42 in 2011. A negative ROCE result implies negative profitability, that is, a net operating loss. There is a grouping of entities with ROCE less than negative 50%, these entities typically have very low levels of revenue in relation to the net loss reported.



Markets

The median ROCE performance by market for the last three years shows:

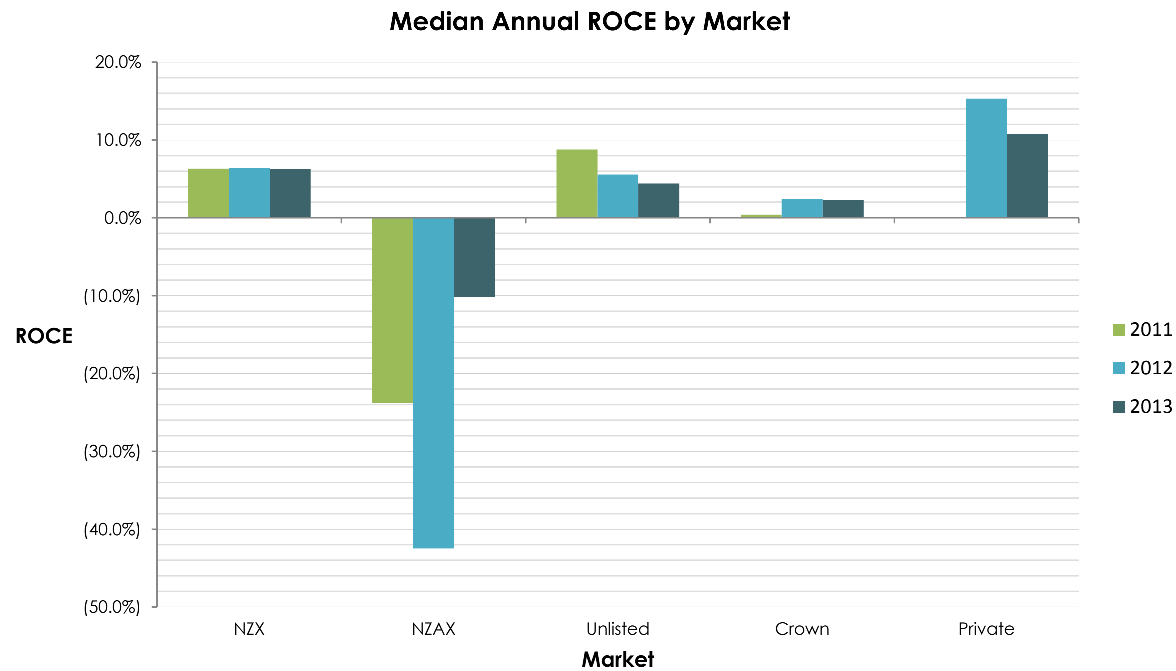
– The NZX listed entities had a consistent median performance ranging between 6.3% to 6.4%;

– Those entities listed on the NZAX market have been consistent median under-performers compared to the overall median for all entities. Note that of the 19 issuers reviewed from the NZAX, eight had either less than $1m in revenue or no revenue at all. The negative median ROCE is representative of the mix of young loss-making companies and non-operating or pre-revenue businesses present;

– Unlisted issuers median performance fell from 5.6% to 4.4% for 2013;

– The Crown Entities reviewed are not performing as well as their listed counterparts, although all produced positive ROCE in 2013; and

– Our sample of private non-listed companies had a significantly higher ROCE than their NZ listed counterparts with a median 2013 ROCE of 10.3%. However, the cost of capital for these private companies, in particular the cost of equity, will be significantly higher.



International Comparison

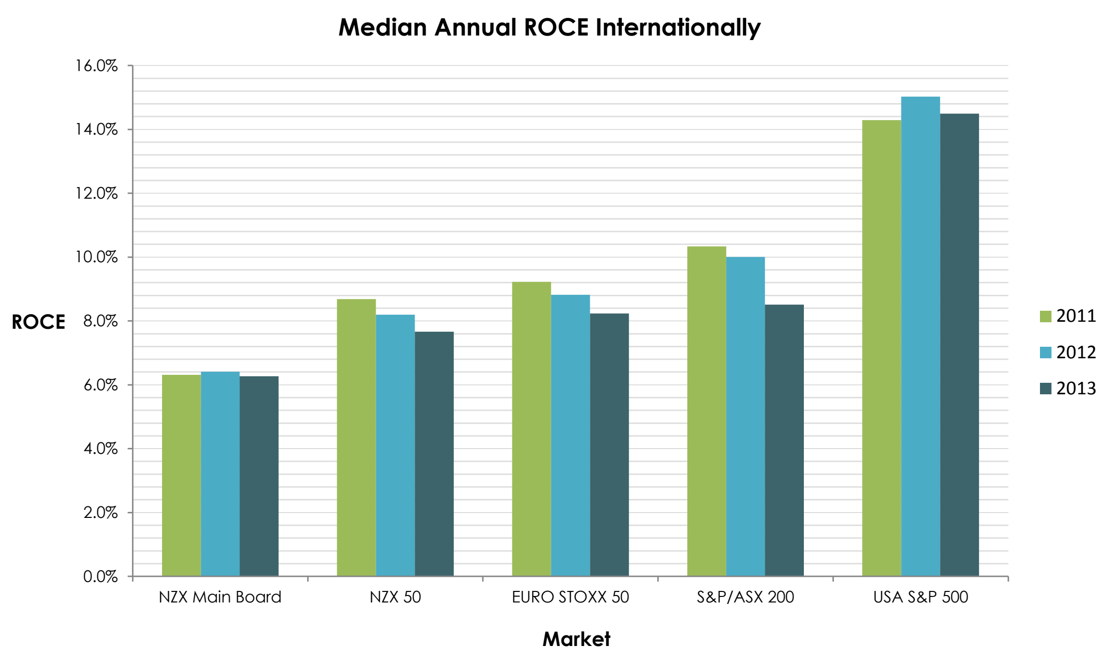
In order to benchmark New Zealand's performance, we have also reviewed the performance of companies in the European, Australian and USA markets, as selected by the EURO STOXX 50, S&P/ASX 200 and S&P 500 indices respectively. For comparability, we have isolated the performance of the NZX50 index constituents from that of the entire group of NZX listed entities.

– The NZX 50 index group of companies had a higher median performance than the overall NZX main board with ROCE ranging from 7.7% to 8.7% over the past three years compared to 6.3% - 6.4% range for the main board. The NZX 50 companies represent more than 90% of NZ listed equity market capitalisation.

– The EURO STOXX 50 index covers 50 blue-chip stocks from 12 Eurozone countries. It represents more than 50% of the entire free-float market capitalisation of all Eurozone listed equities. The median ROCE performance for this group has been only marginally higher than that of the NZX50 group over the past three years, having slipped from 9.2% in 2011 to 8.2% in 2013.

– The S&P/ASX 200 index is recognised as the institutional investable benchmark in Australia. The index covers approximately 80% of the equity market capitalisation of Australia. Median ROCE performance in 2011 (10.3%) and 2012 (10.0%) was notably higher than that of the NZ and European companies reviewed, although the 2013 median of 8.5% was much closer.

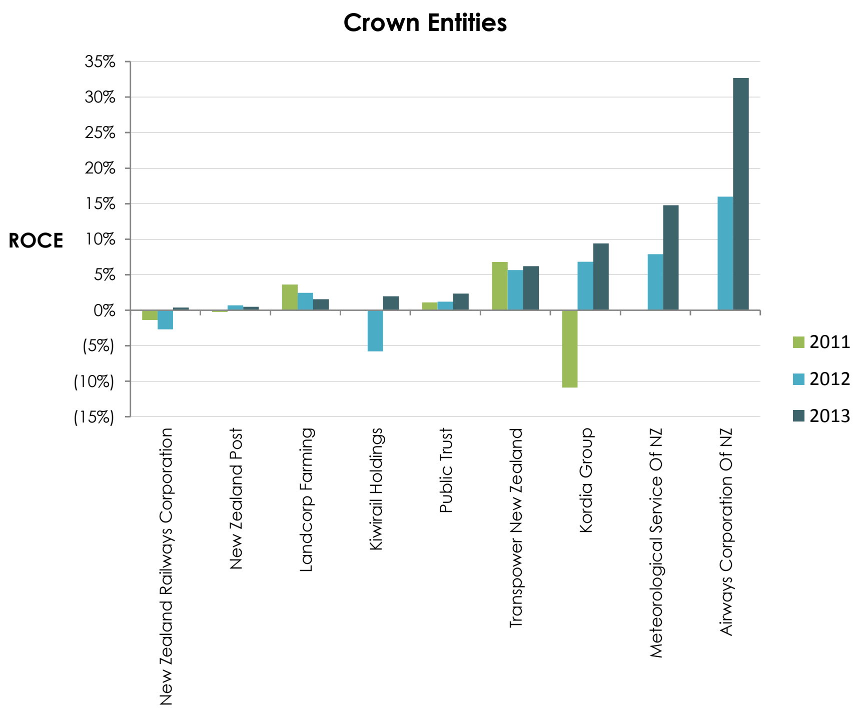
– The S&P 500 index captures approximately 80% of the total US listed equity market capitalisation. The companies in this index have been producing a significantly higher median ROCE that the other markets reviewed, ranging from 14.3% to 15.0% for the past three years.



Crown Entities

Since our 2012 review, three Crown-owned power companies were partially privatised and subsequently listed on the NZX where they have been included in our review this year. In their place we have added Airways Corporation and Metservice to the pool of entities sampled.

Last year, our review included New Zealand Railways Corporation ('OnTrack'), the owner and operator New Zealand's railway land and infrastructure as well as the rail operations, trading as Kiwirail. At the end of 2012, Kiwirail Holdings Limited ('Kiwirail'), the freight operations entity, was separated from the group with OnTrack retaining the land and infrastructure. We have included both entities in this year's review.



This sample of Crown Entities delivered performance results below the median levels of publicly listed entities in general.

- Seven of the nine Crown Entities reported improved ROCE in 2013 compared to 2012 despite a slight decrease in the overall median result from 2.5% to 2.3%.
- Airways Corporation recorded the best ROCE performance of 32.7%, up from 16.0% in 2012. The improvement was driven by an increase in EBIT margin from 9% to 18% with the activity ratio largely unchanged at 1.85x in 2013 up from 1.73x in 2012.

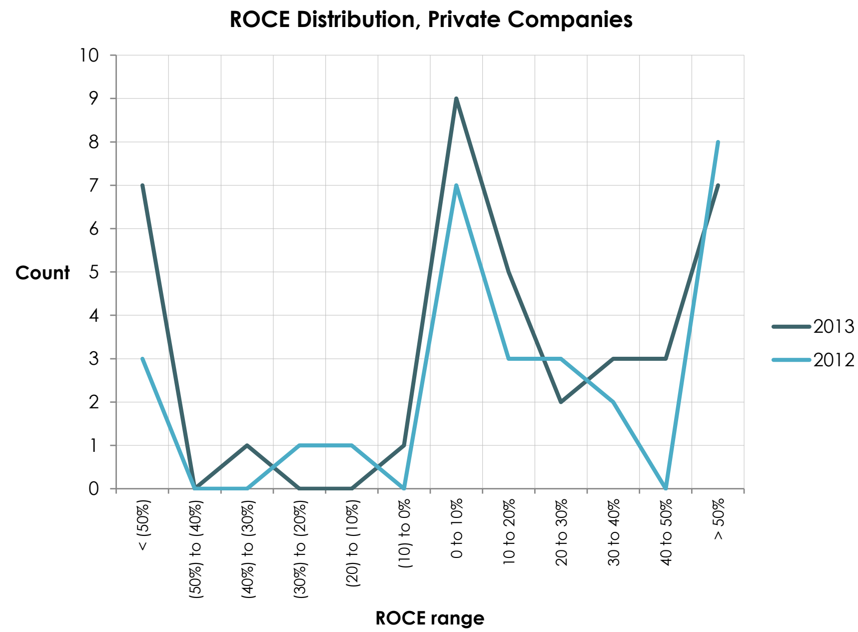
Non-Listed Companies

This year we have also reviewed a selection of 37 non-listed companies to compare how they are performing in relation to their listed peers.

This sample is not large enough to make definitive conclusions regarding the nature of private companies in New Zealand and there is a bias towards younger, growing companies in the dataset. In terms of industry representation, 23 of these companies are involved in the manufacturing or retail of goods, nine are involved in services, particularly technology, and five operate in the primary sector.

In summary:

- There was a significant grouping of performance with more than 40% of ROCE results falling between 0% and 25% for both 2012 and 2013;
- There were also a large number of outliers present with more than 35% of ROCE results with less than negative 50% or greater than 50%; and
- The median ROCE fell from 14.2% to 10.3% from 2012 to 2013.

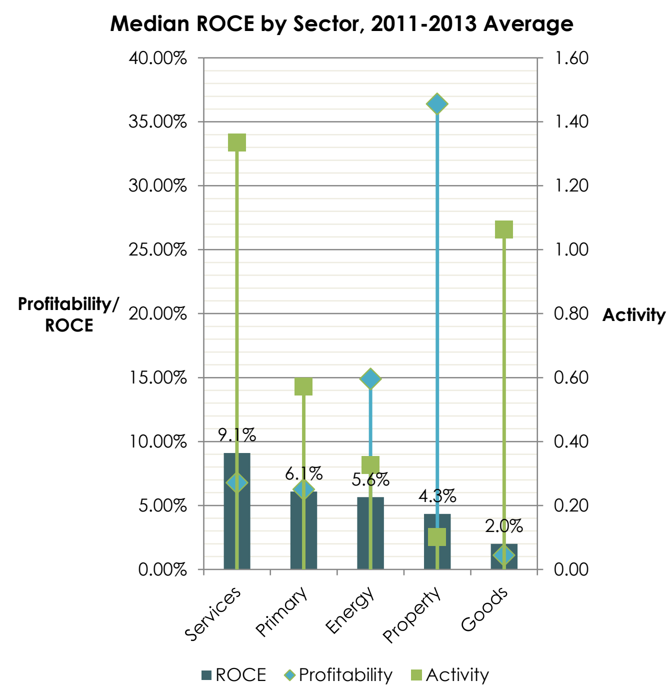


Although the median ROCE is higher than that reported for the NZ listed sector, ROCE needs to be judged against the weighted average cost of capital of the entity. In the case of these typically younger, growing companies, the capital weighting will typically be biased towards equity rather than debt. In addition to equity being more expensive than debt in general, the cost of equity for private companies is significantly higher than that of listed companies due to investors requiring a premium for higher risk. For example, higher risk relates to smaller sized, less mature firms potentially with less depth and/or quality of management, lower quality of information disclosure and lack of liquidity or marketability of the equity holding. Therefore the 2013 median ROCE of 10.3% would suggest that the majority of the private companies reviewed are not generating a return above their weighted average cost of capital, which for public companies is around 8%-9%.

Sector Performance

The outcome of different business models can be examined by comparing the median performance of companies in different sectors. For this analysis we have used the 2011 to 2013 average profitability, activity and ROCE performance for the median value per sector.

- The services sector has had the best historical ROCE at 8.4%. This sector includes transportation, retail, professional and technology services. The sector is characterised by high levels of activity due to low capital requirements and moderate profitability reflecting a reasonable level of pricing power.
- The primary sector, namely agriculture and mining, is also a strong ROCE performer. Compared to the services sector, the primary sector has lower levels of activity, likely due to many of the companies in this sector owning the land on which their activities take place.
- The energy sector contains companies involved with the generation, distribution and retail of electricity, gas and liquid fuels. With a higher level of profitability than the preceding sectors, their ROCE is dragged down by low levels of activity due to the high value of fixed assets required in the businesses.
- The property sector relates to the construction, ownership and management of real estate. This sector's ROCE components paint a more extreme version of that of the energy sector. These companies have the highest profitability with the lowest levels of activity.
- The goods sector contains predominantly companies involved in the manufacture physical goods although some are also retailers. These companies have very high levels of activity which requires efficient inventory management. Balancing this is relatively low levels of profitability indicating low pricing power.



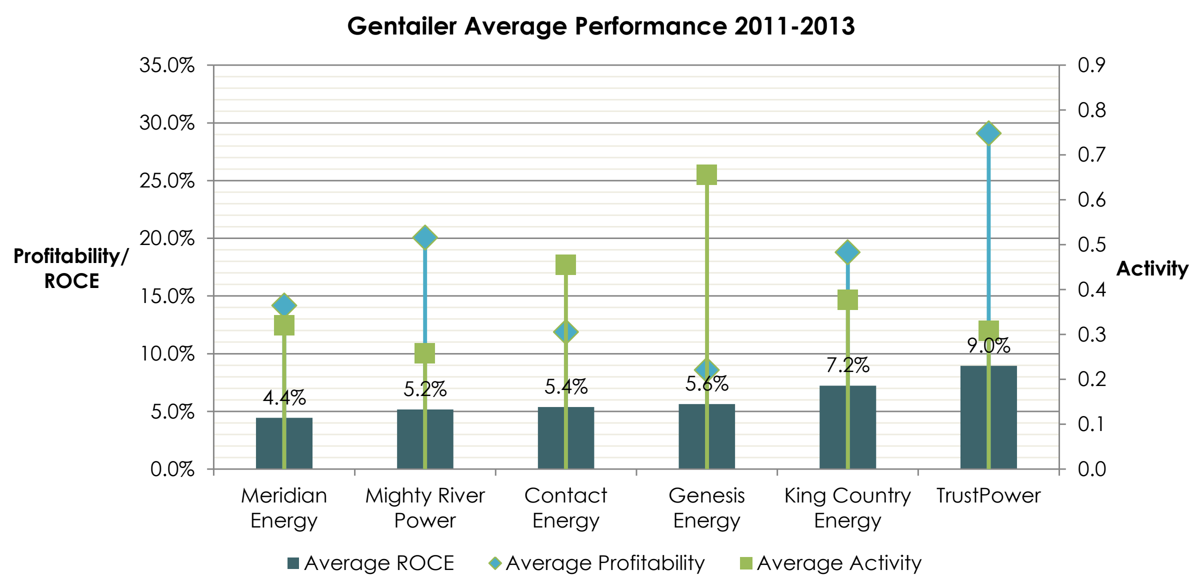
Electricity Generator-Retailer Performance

With three recent partial-privatisations and political proposals for industry reform, there has been much focus on the electricity generator-retail ('gentailer') companies in the past year. By taking the average profitability, activity and ROCE for each of the gentailers in the industry for the three years from 2011 to 2013, it is possible to examine differences in their operating models.

– Trustpower and King Country Energy had the highest average ROCE with 9.0% and 7.2% respectively, with the other four gentailers producing and average ROCE of between 4.4% and 5.6%.

– Trustpower, King Country Energy and Mighty River power had the highest level of profitability with average EBIT margins of 29.1%, 18.8% and 20.0% respectively. Trustpower and King Country Energy's profit margin advantage relates to their focus on higher-margin provincial customers whilst Mighty River Power benefits from strong low cost hydro-electric generation (North Island rainfall) during the peak demand period of winter when prices are highest.

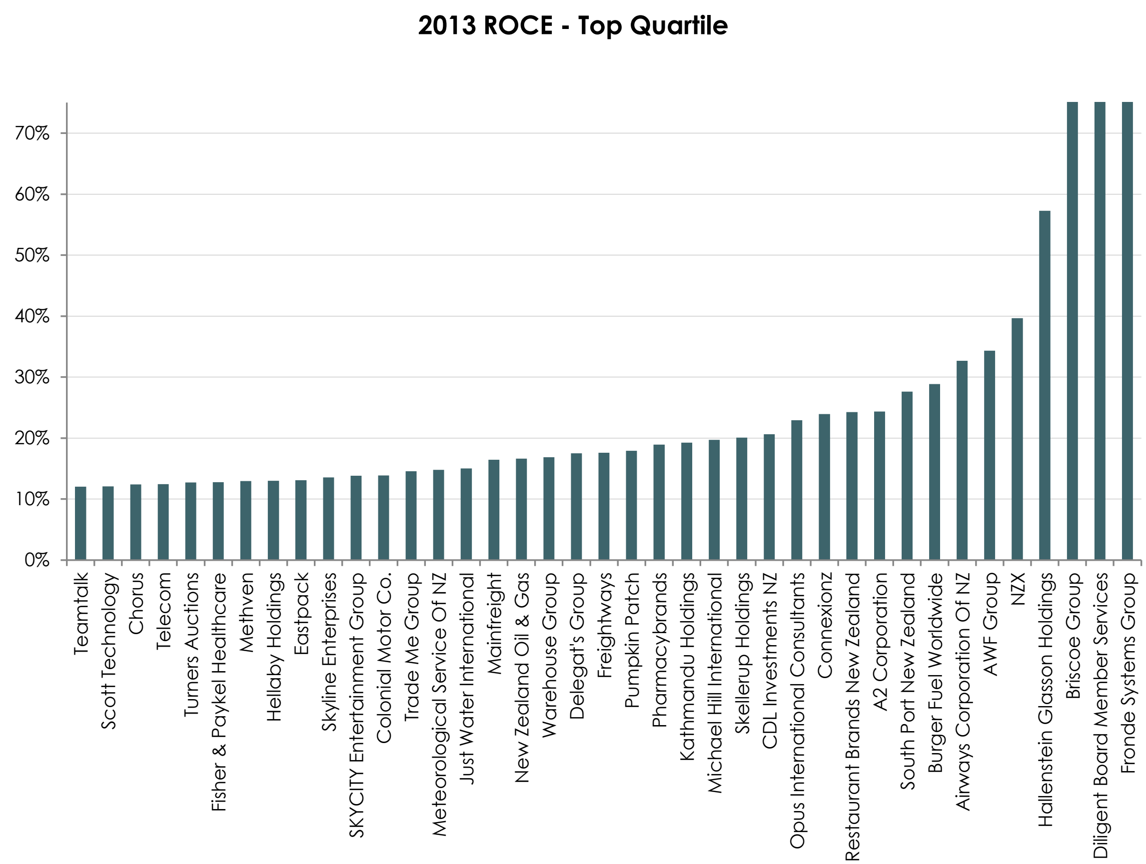
– Genesis Energy and Contact Energy led the industry with respect to activity ratios with ratios of 0.7x and 0.5x respectively. Due to the heavy reliance on expensive plant and equipment assets, the industry has relatively low activity. However, these two companies generate a relatively large proportion of their electricity with coal and gas plants, a strategy that requires lower levels of fixed assets (higher activity) balanced against a higher marginal cost (lower profitability).



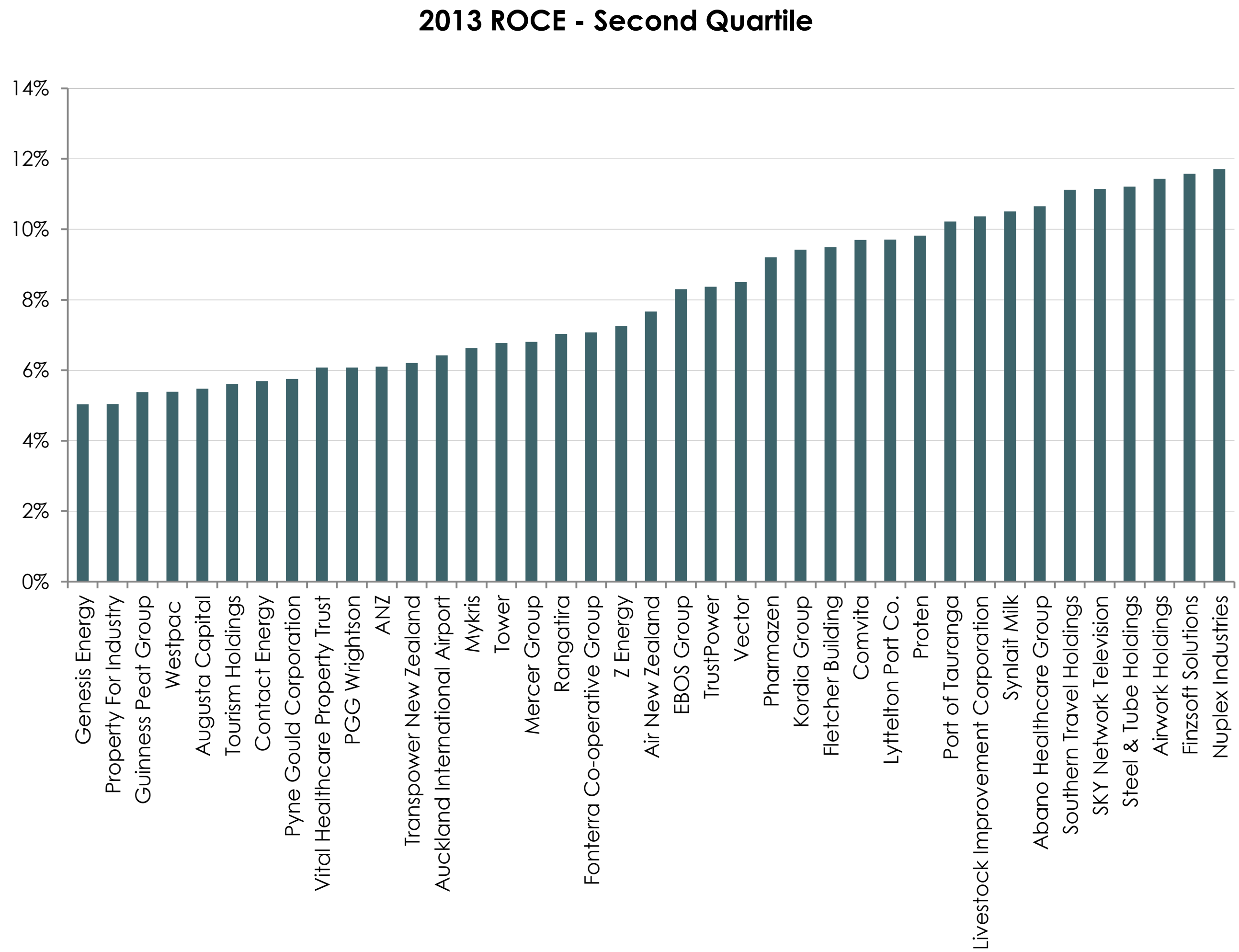
Individual Entities

The following four charts show the individual ROCE performance for each of the 160 listed and Crown entities reviewed in 2013. Note for the purposes of presenting this chart, entities with ROCE greater than 75% have been capped at 75% as they are relative outliers.

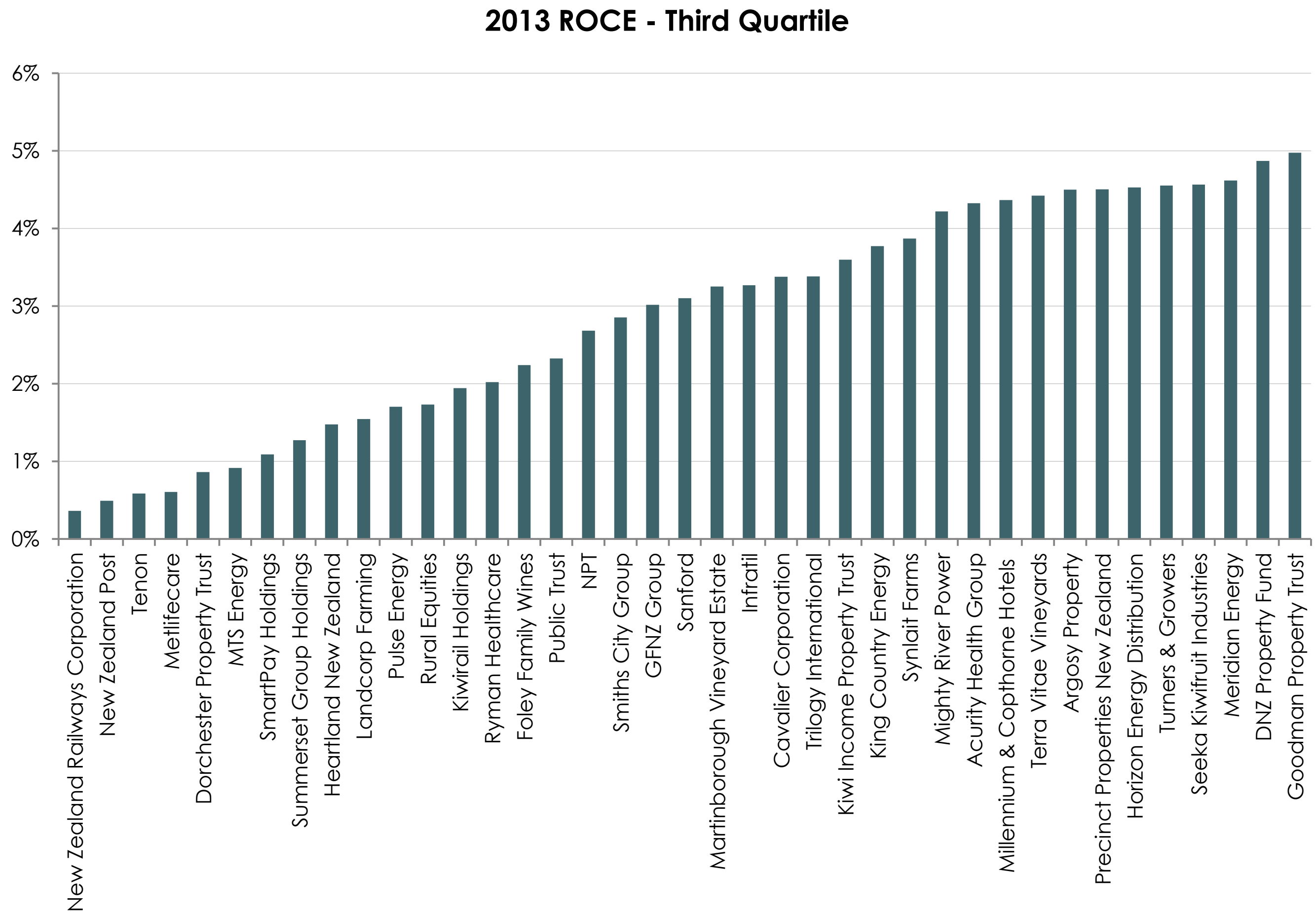
The 40 entities in the top quartile are dominated by technology, retail and service related companies, and top quartile ROCE performance ranges from 12.1% to 246.8%.



The entities in the second quartile had 2013 ROCE's ranging between 5.0% and 12.0%. At this level we estimate that most are trading at or above their individual weighted average cost of capital, if only marginally.

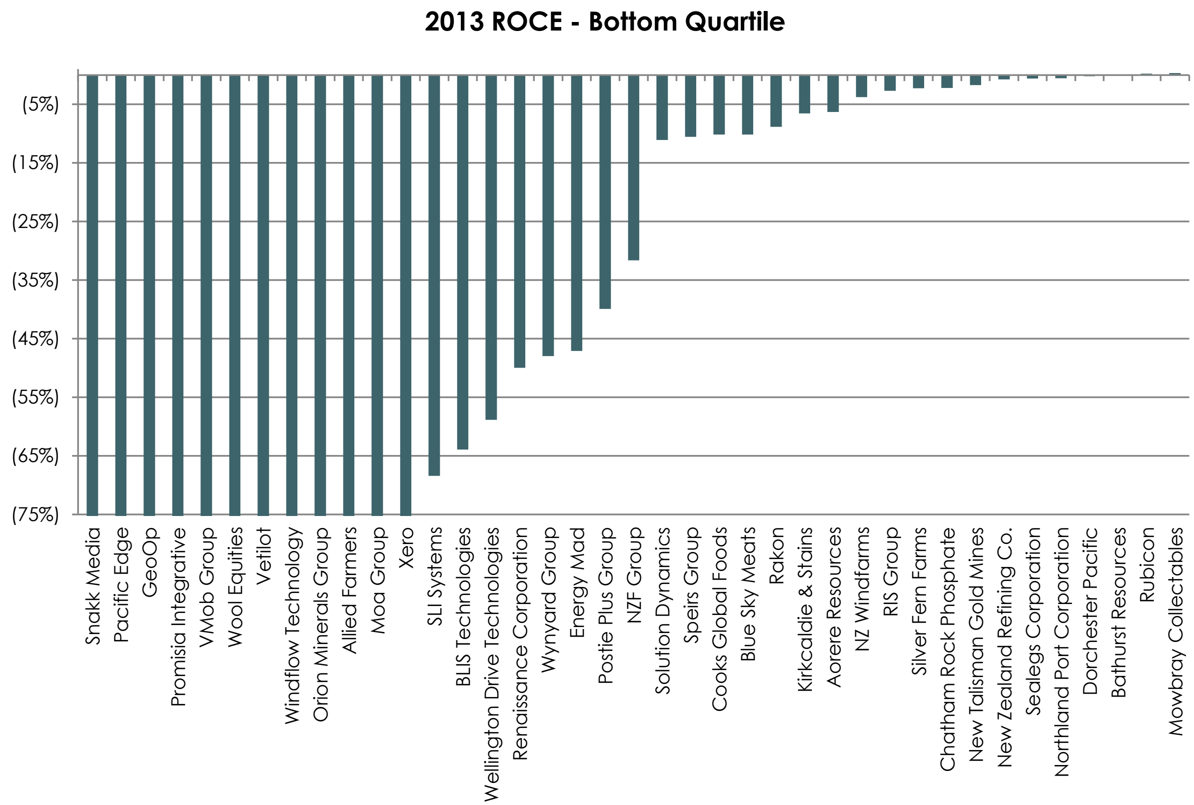


The third quartile ranges from 0.4% to 5.0% and contains the majority of the property sector companies. At this level we estimate that most are trading at or below their individual weighted average cost of capital.



The fourth quartile of entities are those entities with a ROCE of 0.3% or less. Note that for the purposes of this chart those entities with a ROCE of less than negative 75% have been constrained to negative 75%. Those entities with negative ROCE reported negative EBIT margins.

We note that some of the entities at the bottom of this quartile are focused on a significant growth strategy at the expense of profitability. Xero and Moa are examples of this strategy. Those mature businesses in this quartile need to reconsidering the viability of their business models.



Appendix 1 contains a table of individual entity results including 2012 and 2013 Profitability (EBIT margin) and Activity Ratios in addition to the 2011, 2012 and 2013 and three-year average ROCE.

About Armillary Private Capital

Armillary Private Capital is a specialist investment banking, asset and markets management, financial training and advisory firm focused on the NZ capital markets. Our purpose is enabling success for businesses, business owners and investors.

Our approach is based on a combination of influences grounded in our purpose, methodology and experiences. We have worked with a range of New Zealand businesses through all stages of the business lifecycle from start-up to maturity. Be they private, listed or government-related we have seen and experienced the roller-coaster rides business owners and managers endure. These experiences allow us to quickly identify a client's needs and find the right solution.

An important part of our approach is the use of proven financial tools and methodologies to provide a concise but comprehensive view of business performance. A key methodology that underpins our work is the DuPont method as used in this report. This powerful but highly practical method of analysis allows us to develop a rapid understanding of the underlying performance of a business and to identify key business drivers. This disciplined approach helps us with quality decision-making in our work.

Sources of Data

The data for this analysis and report has been compiled by Armillary Private Capital from annual reports and data obtained through FactSet Research Systems.

Appendix 1 – Detailed Results

Issuer	Market	2012 EBIT Margin	2013 EBIT Margin	2012 Activity Ratio	2013 Activity Ratio	ROCE 2011	ROCE 2012	ROCE 2013	Average ROCE
A2 Corporation	NZX	6.2%	9.7%	2.3	2.5	23.8%	14.3%	24.3%	20.8%
Abano Healthcare Group	NZX	8.4%	9.1%	1.3	1.2	9.5%	11.1%	10.7%	10.4%
Acurity Health Group	NZX	12.0%	8.8%	0.6	0.5	7.2%	6.9%	4.3%	6.2%
Air New Zealand	NZX	5.4%	6.2%	1.2	1.2	11.6%	6.7%	7.7%	8.7%
Airways Corporation	Crown	9.3%	17.7%	1.7	1.9	NA	16.0%	32.7%	24.3%
Airwork Holdings	NZX	13.9%	14.9%	NA	0.8	NA	NA	11.4%	11.4%
Allied Farmers	NZX	(70.3%)	(42.6%)	0.8	2.3	(12.7%)	(57.8%)	(98.7%)	(56.4%)
Aorere Resources	NZX	NA	(77.0%)	0.0	0.1	NA	NA	(6.3%)	(6.3%)
Argosy Property	NZX	28.2%	45.7%	0.1	0.1	3.7%	3.2%	4.5%	3.8%
Auckland International	NZX	57.6%	57.8%	0.1	0.1	6.3%	6.1%	6.4%	6.3%
Augusta Capital	NZX	35.4%	43.8%	0.1	0.1	0.5%	3.5%	5.5%	3.2%
ANZ	NZX	19.8%	25.4%	0.3	0.2	5.7%	5.9%	6.1%	5.9%
AWF Group	NZX	5.1%	5.8%	5.5	5.9	31.8%	28.2%	34.3%	31.4%
Bathurst Resources	NZX	(52.3%)	NA	0.1	0.0	(3.1%)	(4.2%)	(0.0%)	(2.4%)
BLIS Technologies	NZX	(87.3%)	(156.5%)	0.6	0.4	(57.7%)	(49.4%)	(63.9%)	(57.0%)
Blue Sky Meats	Unlisted	(0.3%)	(4.8%)	2.3	2.1	16.3%	(0.6%)	(10.1%)	1.8%
Briscoe Group	NZX	8.4%	9.0%	8.7	8.9	54.7%	72.9%	80.2%	69.3%
Burger Fuel Worldwide	NZAX	3.1%	6.0%	4.8	4.8	(147.2%)	14.7%	28.9%	(34.6%)
Cavalier Corporation	NZX	2.5%	2.7%	1.3	1.2	15.6%	3.2%	3.4%	7.4%
CDL Investments NZ	NZX	46.5%	45.4%	0.3	0.5	5.6%	14.4%	20.6%	13.6%
Chatham Rock Phosphate	NZAX	NA	NA	NA	0.0	NA	NA	(2.2%)	(2.2%)
Chorus	NZX	34.3%	32.5%	0.2	0.4	NA	8.4%	12.4%	10.4%
Colonial Motor Co.	NZX	3.3%	3.6%	3.6	3.8	5.7%	11.8%	13.9%	10.5%
Comvita	NZX	11.5%	9.9%	1.0	1.0	7.0%	11.3%	9.7%	9.3%
Connexionz	Unlisted	(8.1%)	7.0%	4.2	3.4	(1.4%)	(33.7%)	24.0%	(3.7%)

Issuer	Market	2012 EBIT Margin	2013 EBIT Margin	2012 Activity Ratio	2013 Activity Ratio	ROCE 2011	ROCE 2012	ROCE 2013	Average ROCE
Contact Energy	NZX	11.0%	12.9%	0.5	0.4	5.1%	5.4%	5.7%	5.4%
Cooks Global Foods	NZAX	NA	NA	NA	0.0	(7250.0%)	NA	(10.2%)	(3630.1%)
Delegat's Group	NZX	18.1%	26.9%	0.7	0.7	13.5%	12.8%	17.5%	14.6%
Diligent Board Member	NZX	19.5%	16.0%	8.1	5.7	(35.1%)	157.1%	91.3%	71.1%
DNZ Property Fund	NZX	48.6%	52.6%	0.1	0.1	3.3%	4.6%	4.9%	4.3%
Dorchester Pacific	NZX	(17.0%)	(0.6%)	0.2	0.3	23.6%	(3.2%)	(0.2%)	6.7%
Dorchester Property Trust	Unlisted	8.1%	5.9%	0.2	0.1	1.7%	1.3%	0.9%	1.3%
Eastpack	Unlisted	17.3%	7.0%	1.7	1.9	37.7%	29.3%	13.1%	26.7%
EBOS Group	NZX	2.8%	3.1%	5.9	2.7	19.0%	16.7%	8.3%	14.7%
Energy Mad	NZX	(25.6%)	(28.6%)	0.9	1.6	NA	(22.1%)	(47.1%)	(34.6%)
Finzsoft Solutions	NZX	(6.8%)	4.7%	2.4	2.5	17.6%	(16.6%)	11.6%	4.2%
Fisher & Paykel Healthcare	NZX	8.7%	12.1%	1.1	1.1	14.9%	9.2%	12.8%	12.3%
Fletcher Building	NZX	5.8%	6.4%	1.5	1.5	10.3%	8.9%	9.5%	9.6%
Foley Family Wines	NZAX	(7.7%)	7.2%	0.2	0.3	NA	(1.2%)	2.2%	0.5%
Fonterra Co-operative	NZX	4.3%	4.2%	1.8	1.7	8.7%	8.0%	7.1%	7.9%
Freightways	NZX	16.2%	15.9%	1.1	1.1	17.2%	17.5%	17.6%	17.4%
Fronde Systems Group	Unlisted	4.2%	6.4%	39.6	38.5	124.7%	166.8%	246.8%	179.4%
Genesis Energy	NZX	9.9%	8.3%	0.7	0.6	5.1%	6.7%	5.0%	5.6%
GeoOp	NZAX	(37.5%)	(307.5%)	7.7	1.7	NA	(288.9%)	(518.1%)	(403.5%)
GFNZ Group	NZAX	(0.0%)	13.6%	0.2	0.2	(7.4%)	(0.0%)	3.0%	(1.5%)
Goodman Property Trust	NZX	52.9%	56.2%	0.1	0.1	5.0%	5.1%	5.0%	5.0%
Guinness Peat Group	NZX	1.9%	3.4%	1.0	1.6	3.3%	1.9%	5.4%	3.5%
Hallenstein Glasson	NZX	12.2%	11.5%	5.3	5.0	60.8%	65.3%	57.3%	61.1%
Heartland New Zealand	NZX	12.2%	15.3%	0.1	0.1	1.4%	1.4%	1.5%	1.4%
Hellaby Holdings	NZX	5.2%	5.2%	3.1	2.5	14.0%	16.1%	13.0%	14.4%
Horizon Energy Distribution	NZX	30.4%	7.7%	0.3	0.6	9.6%	10.6%	4.5%	8.2%
Infratil	NZX	7.8%	6.0%	0.5	0.5	3.0%	4.1%	3.3%	3.4%
Just Water International	NZAX	14.0%	12.8%	1.1	1.2	10.2%	15.2%	15.0%	13.5%
Kathmandu Holdings	NZX	16.7%	16.5%	1.1	1.2	22.0%	18.3%	19.2%	19.9%

Issuer	Market	2012 EBIT Margin	2013 EBIT Margin	2012 Activity Ratio	2013 Activity Ratio	ROCE 2011	ROCE 2012	ROCE 2013	Average ROCE
King Country Energy	Unlisted	23.3%	11.3%	0.4	0.3	9.0%	8.9%	3.8%	7.2%
Kirkcaldie & Stains	NZX	(5.6%)	(8.3%)	1.1	0.8	(3.8%)	(6.0%)	(6.5%)	(5.5%)
Kiwi Income Property Trust	NZX	38.9%	34.6%	0.1	0.1	4.4%	4.4%	3.6%	4.1%
Kiwirail Holdings	Crown	(32.4%)	6.4%	0.2	0.3	NA	(5.8%)	1.9%	(1.9%)
Kordia Group	Crown	3.5%	4.6%	1.9	2.0	(10.9%)	6.8%	9.4%	1.8%
Landcorp Farming	Crown	17.3%	11.7%	0.1	0.1	3.6%	2.5%	1.5%	2.5%
Livestock Improvement	NZAX	10.9%	11.2%	0.9	0.9	14.5%	10.0%	10.4%	11.6%
Lyttelton Port Co.	NZX	21.8%	22.4%	0.4	0.4	9.6%	9.5%	9.7%	9.6%
Mainfreight	NZX	5.8%	5.6%	3.6	2.9	19.6%	20.8%	16.5%	18.9%
Martinborough Vineyard	Unlisted	23.5%	9.7%	0.4	0.3	0.9%	9.5%	3.3%	4.5%
Mercer Group	NZX	(1.4%)	3.9%	1.4	1.7	(13.0%)	(2.0%)	6.8%	(2.7%)
Meridian Energy	NZX	9.2%	12.9%	0.3	0.4	5.7%	3.0%	4.6%	4.4%
Meteorological Service	Crown	5.8%	10.9%	1.4	1.4	NA	7.9%	14.8%	11.3%
Methven	NZX	9.8%	8.2%	1.6	1.6	12.6%	15.8%	13.0%	13.8%
Metlifecare	NZX	4.3%	10.5%	0.1	0.1	0.5%	0.2%	0.6%	0.4%
Michael Hill International	NZX	8.8%	9.1%	2.2	2.2	20.8%	19.0%	19.7%	19.8%
Mighty River Power	NZX	18.1%	17.5%	0.3	0.2	6.3%	5.0%	4.2%	5.2%
Millennium & Copthorne	NZX	19.8%	21.6%	0.2	0.2	1.9%	3.6%	4.4%	3.3%
Moa Group	NZX	(118.1%)	(85.4%)	1.6	1.0	NA	(191.0%)	(85.9%)	(138.5%)
Mowbray Collectables	NZX	0.7%	0.5%	0.6	0.6	6.3%	0.4%	0.3%	2.3%
MTS Energy	Unlisted	5.4%	1.3%	0.2	0.7	NA	1.1%	0.9%	1.0%
Mykris	NZAX	(78.0%)	11.7%	NA	0.6	NA	NA	6.6%	6.6%
New Talisman Gold Mines	NZX	NA	NA	0.0	0.0	(1.3%)	(1.5%)	(1.7%)	(1.5%)
New Zealand Oil & Gas	NZX	46.1%	45.4%	0.4	0.4	11.6%	18.6%	16.6%	15.6%
New Zealand Post	Crown	6.6%	3.9%	0.1	0.1	(0.3%)	0.7%	0.5%	0.3%
New Zealand Railways	Crown	(32.4%)	14.8%	0.1	0.0	(1.4%)	(2.7%)	0.4%	(1.2%)
New Zealand Refining Co.	NZX	18.4%	(2.9%)	0.4	0.3	6.6%	6.5%	(0.7%)	4.1%
Northland Port Corporation	NZX	(34.5%)	(38.6%)	0.0	0.0	(0.5%)	(0.4%)	(0.5%)	(0.5%)
NPT	NZX	38.0%	23.3%	0.2	0.1	4.6%	6.7%	2.7%	4.7%

Issuer	Market	2012 EBIT Margin	2013 EBIT Margin	2012 Activity Ratio	2013 Activity Ratio	ROCE 2011	ROCE 2012	ROCE 2013	Average ROCE
Nuplex Industries	NZX	6.2%	5.7%	2.2	2.0	16.9%	13.4%	11.7%	14.0%
NZ Windfarms	NZX	(46.0%)	(40.5%)	0.1	0.1	(4.5%)	(4.2%)	(3.8%)	(4.2%)
NZF Group	NZX	(131.0%)	(23.2%)	0.0	1.4	(1.9%)	(6.5%)	(31.6%)	(13.3%)
NZX	NZX	27.3%	30.8%	0.8	1.3	24.2%	23.0%	39.7%	28.9%
Oceanagold Corporation	NZX	13.8%	NA	0.5	NA	10.9%	7.2%	NA	9.1%
Opus International	NZX	7.2%	7.3%	4.8	3.2	42.3%	34.4%	22.9%	33.2%
Orion Minerals Group	NZAX	NA	NA	0.0	0.0	(191.5%)	(136.7%)	(121.3%)	(149.8%)
Pacific Edge	NZX	(48059.5%)	(48743.9%)	0.0	0.0	(757.9%)	(982.6%)	(911.7%)	(884.1%)
PGG Wrightson	NZX	3.1%	3.1%	1.7	2.0	3.4%	5.4%	6.1%	5.0%
Pharmacybrands	NZX	7.6%	11.4%	2.4	1.7	(18.9%)	17.9%	18.9%	6.0%
Pharmazen	Unlisted	8.5%	11.4%	1.0	0.8	8.6%	8.4%	9.2%	8.7%
Port of Tauranga	NZX	42.7%	42.8%	0.2	0.2	8.2%	9.9%	10.2%	9.4%
Postie Plus Group	NZX	1.2%	(11.6%)	3.5	3.4	7.5%	4.3%	(39.9%)	(9.4%)
Precinct Properties	NZX	45.9%	42.7%	0.1	0.1	6.3%	4.9%	4.5%	5.2%
Promisia Integrative	NZX	(882.4%)	(326.3%)	0.2	1.6	(15.3%)	(165.3%)	(514.3%)	(231.6%)
Property For Industry	NZX	67.3%	63.6%	0.1	0.1	6.3%	5.6%	5.0%	5.7%
Proten	Unlisted	41.9%	43.4%	0.2	0.2	10.7%	9.8%	9.8%	10.1%
Public Trust	Crown	17.5%	25.5%	0.1	0.1	1.1%	1.2%	2.3%	1.5%
Pulse Energy	NZAX	(10.8%)	0.1%	13.5	15.7	(168.1%)	(146.8%)	1.7%	(104.4%)
Pumpkin Patch	NZX	5.9%	6.0%	2.8	3.0	20.3%	16.7%	17.9%	18.3%
Pyne Gould Corporation	NZX	(33.1%)	49.2%	0.2	0.1	(2.8%)	(5.9%)	5.8%	(1.0%)
Rakon	NZX	(3.9%)	(10.3%)	0.8	0.9	4.9%	(3.3%)	(8.8%)	(2.4%)
Rangatira	Unlisted	36.1%	26.3%	0.2	0.3	7.6%	8.9%	7.0%	7.9%
Renaissance Corporation	NZX	(4.3%)	(13.7%)	4.5	3.7	(29.9%)	(19.3%)	(50.0%)	(33.1%)
Restaurant Brands	NZX	8.6%	8.1%	3.0	3.0	35.3%	25.5%	24.3%	28.4%
RIS Group	NZAX	(215.2%)	NA	0.3	0.0	(13.6%)	(73.9%)	(2.7%)	(30.1%)
Rubicon	NZX	(2.1%)	0.2%	1.4	1.4	(0.8%)	(2.9%)	0.2%	(1.2%)
Rural Equities	Unlisted	40.0%	33.2%	0.1	0.1	3.4%	2.2%	1.7%	2.4%
Ryman Healthcare	NZX	22.3%	22.1%	0.1	0.1	2.1%	2.0%	2.0%	2.0%

Issuer	Market	2012 EBIT Margin	2013 EBIT Margin	2012 Activity Ratio	2013 Activity Ratio	ROCE 2011	ROCE 2012	ROCE 2013	Average ROCE
Sanford	NZX	6.7%	4.8%	0.6	0.6	3.7%	4.2%	3.1%	3.7%
Scott Technology	NZX	7.6%	8.1%	1.9	1.5	6.1%	14.3%	12.1%	10.9%
SeaDragon	NZX	NA	(2.7%)	NA	NA	NA	NA	NA	NA
Sealegs Corporation	NZX	(11.7%)	(0.2%)	2.3	3.0	(68.6%)	(26.6%)	(0.6%)	(31.9%)
Seeka Kiwifruit Industries	NZX	9.4%	3.8%	1.3	1.2	13.4%	12.0%	4.6%	10.0%
Silver Fern Farms	Unlisted	(0.8%)	(0.8%)	3.6	3.0	11.1%	(3.0%)	(2.3%)	1.9%
Skellerup Holdings	NZX	16.7%	13.7%	1.7	1.5	24.0%	27.6%	20.1%	23.9%
SKY Network Television	NZX	22.2%	23.1%	0.5	0.5	9.9%	10.1%	11.2%	10.4%
SKYCITY Entertainment	NZX	26.4%	25.3%	0.5	0.5	14.8%	14.5%	13.8%	14.3%
Skyline Enterprises	Unlisted	34.6%	30.3%	0.5	0.4	14.7%	16.4%	13.6%	14.9%
SLI Systems	NZX	0.6%	(52.4%)	20.3	1.3	NA	12.9%	(68.4%)	(27.8%)
SmartPay Holdings	NZX	(31.3%)	2.2%	0.7	0.5	3.8%	(23.1%)	1.1%	(6.1%)
Smiths City Group	NZX	0.0%	1.7%	1.5	1.7	(5.2%)	0.0%	2.9%	(0.8%)
Snakk Media	NZAX	(31.5%)	(33.1%)	329.2	297.5	NA	(10367.9%)	(9844.5%)	(10106.2%)
Solution Dynamics	NZAX	(7.7%)	(2.0%)	4.3	5.6	0.0%	(32.9%)	(11.1%)	(14.7%)
South Port New Zealand	NZX	32.1%	31.6%	0.8	0.9	28.7%	27.3%	27.6%	27.9%
Southern Travel Holdings	Unlisted	0.3%	2.5%	4.4	4.5	(10.7%)	1.5%	11.1%	0.6%
Speirs Group	NZAX	(7.0%)	(3.0%)	2.8	3.5	(13.9%)	(19.5%)	(10.5%)	(14.6%)
Steel & Tube Holdings	NZX	4.7%	5.3%	2.1	2.1	13.8%	10.0%	11.2%	11.6%
Summerset Group Holdings	NZX	11.0%	14.7%	0.1	0.1	0.7%	0.7%	1.3%	0.9%
Synlait Farms	Unlisted	31.3%	24.4%	0.2	0.2	12.4%	5.6%	3.9%	7.3%
Synlait Milk	NZX	4.1%	6.4%	1.9	1.7	(0.2%)	7.7%	10.5%	6.0%
Teamtalk	NZX	24.2%	17.5%	0.6	0.7	14.2%	15.0%	12.0%	13.7%
Telecom	NZX	6.0%	8.3%	1.1	1.5	10.3%	6.6%	12.4%	9.8%
Tenon	NZX	(1.5%)	0.3%	2.1	2.1	(0.0%)	(3.1%)	0.6%	(0.9%)
Terra Vitae Vineyards	Unlisted	31.8%	35.5%	0.1	0.1	3.3%	3.3%	4.4%	3.7%
Tourism Holdings	NZX	8.3%	6.8%	0.8	0.8	2.5%	6.4%	5.6%	4.8%
Tower	NZX	20.6%	7.2%	1.1	0.9	18.1%	22.6%	6.8%	15.8%
Trade Me Group	NZX	71.3%	69.4%	0.4	0.2	103.9%	25.6%	14.6%	48.0%

Issuer	Market	2012 EBIT Margin	2013 EBIT Margin	2012 Activity Ratio	2013 Activity Ratio	ROCE 2011	ROCE 2012	ROCE 2013	Average ROCE
Transpower New Zealand	Crown	27.6%	29.3%	0.2	0.2	6.8%	5.7%	6.2%	6.2%
Trilogy International	NZX	2.1%	3.4%	1.0	1.0	(35.8%)	2.1%	3.4%	(10.1%)
TRS Investments	NZX	(966.7%)	(900.0%)	0.5	NA	(1033.3%)	(483.3%)	NA	(758.3%)
TrustPower	NZX	30.3%	28.2%	0.3	0.3	8.9%	9.5%	8.4%	9.0%
Turners & Growers	NZX	1.3%	2.2%	1.8	2.1	2.8%	2.2%	4.6%	3.2%
Turners Auctions	NZX	4.1%	4.3%	2.9	3.0	11.5%	12.0%	12.7%	12.1%
Vector	NZX	36.8%	36.0%	0.2	0.2	8.1%	8.7%	8.5%	8.4%
Veritas Investments	NZX	16.3%	19.5%	3.9	NA	1.5%	64.2%	NA	32.9%
Vetilot	NZAX	(44.1%)	(366.2%)	1.2	0.5	(33.7%)	(52.0%)	(184.0%)	(89.9%)
Vital Healthcare Property	NZX	44.0%	50.2%	0.1	0.1	5.0%	4.9%	6.1%	5.3%
VMob Group	NZAX	NA	(2989.1%)	0.0	0.2	(13.5%)	(2.3%)	(461.4%)	(159.1%)
Warehouse Group	NZX	5.3%	4.7%	3.5	3.6	26.0%	18.5%	16.9%	20.5%
Wellington Drive	NZX	(16.2%)	(14.2%)	4.2	4.2	(111.9%)	(68.0%)	(58.9%)	(79.6%)
Westpac Banking	NZX	20.9%	25.3%	0.2	0.2	4.3%	4.6%	5.4%	4.8%
Windflow Technology	NZAX	(157.3%)	(811.7%)	0.7	0.2	(142.2%)	(116.6%)	(127.9%)	(128.9%)
Wool Equities	NZAX	(499.1%)	(85.9%)	0.6	2.2	(622.4%)	(293.2%)	(187.6%)	(367.7%)
Wynyard Group	NZX	(46.6%)	(64.1%)	3.1	0.7	NA	(146.6%)	(48.0%)	(97.3%)
Xero	NZX	(46.0%)	(42.3%)	1.8	1.9	NA	(82.2%)	(78.4%)	(80.3%)
Z Energy	NZX	4.2%	2.2%	4.7	3.3	NA	19.9%	7.3%	13.6%

Appendix 2 – ROCE explained

What is Return on Capital Employed and what does it show?

Return on Capital Employed ("ROCE") is a measure of business effectiveness and capital efficiency. ROCE is a function of profitability, how much profit a business generates before interest on debt and tax (EBIT) and activity, how much a business has invested in operating assets to generate that level of profitability.

In the 1920's Du Pont Corporation developed what is commonly known as Du Pont accounting and ROCE as a measure of business performance to enable it to compare the performance of its many different business units. The Du Pont accounting method is a powerful and relatively simple approach to determine the impact of management decisions on financial performance. The advantage of this method is that it provides a consistent form of evaluation for a business to use when measuring performance.

At an individual business level ROCE:

– allows comparison between business units of different size over time;
– shows where to invest further and where to cut back;
– shows whether it is worth borrowing further to invest;
– shows if expectations of shareholders are being met;
– indicates the maximum sustainable growth of a business; and
– is used to track whether or not a project is performing according to plan.

ROCE can be used to test operational efficiency, balance sheet management efficiency and the adequacy of return on total capital employed to make an assessment of a business's performance.

ROCE can be used to help management improve both the profitability (EBIT) and balance sheet management. Improvements in these areas will lead to improvements in the Return on Capital employed.

Calculating ROCE

It is important to note that some changes need to be made to traditional thinking to gain the benefits of this dynamic approach. To achieve this there are two concepts that need to be considered:

Concepts

(i) The separation of funding from operating decisions

Consider the traditional formula for presenting financial statements.

EQUITY = (Current Assets + Cash - Current Liabilities) + Non-current Assets - Debt

In order to calculate ROCE, all forms of funding need to be removed from the right hand side of the equation. Total net assets should be void of any external funding or debt thereby representing the true value of scarce resources employed in the business.

The financial analysis format can now be structured as follows.

DEBT - CASH + EQUITY = (Current Assets - Current Liabilities) + Non-Current Assets

TOTAL CAPITAL EMPLOYED (TCE) = TOTAL NET OPERATING ASSETS (TNA)

The movement in TNA reflects operating changes made to the employment of scarce resources, whilst net Debt (debt – cash) and Equity reflects how these changes are funded. It should be noted that where the directors of a business elect to retain minimum levels of cash this cash should be included in TNA.

(ii) Balance sheet efficiency – ACTIVITY RATIO.

Definition: A measurement of how well the business manages its scarce resources

Formula: $$\frac{\text{Revenue}}{\text{Total Net Assets}}$$

The Activity Ratio is a measure of how many times a business turns over its TNA in a financial year.

By way of example, an Activity ratio of 2.5 means that for every $1 invested in TNA the business produces $2.50 in sales. It answers the question of whether or not the net operating assets are being utilised efficiently in the production of income.

The activity drivers are:

- Stock, Work in Progress, Inventory: the value of raw materials, work in progress and finished goods the business holds;
- Trade Debtors: how much the business has locked up in sales revenues receivable;
- Trade Creditors: how much the business owes to its suppliers for goods and services provided; and
- Non-Current Assets: how much is invested in plant and equipment and intangible assets is required to operate the business and produce the goods sold.

Other current assets and liabilities such as prepayments and accruals are included in trade debtors and creditors.

Adjusting one or more of the activity drivers will increase or decrease the activity ratio and therefore improve or worsen ROCE.

(iii) Operational Efficiency – PROFITABILITY MARGIN.

Definition: A measurement of the Return on Sales purely from an operating perspective.

Formula:

$$\frac{\text{Earnings before interest \& tax}}{\text{Revenue}}$$

The above formula ignores the impact of funding and concentrates on the entity's ability to produce a return from revenue.

The four key profitability drivers are:

- Price: how much a business receives for the goods it sells;

- Volume: how many goods the business sells;
- Cost of Goods Sold: how much it costs the business to produce the goods it sells; and
- Expenses: the overhead expenses of the business.

Adjusting one or more of the profitability drivers will increase or decrease the profitability ratio and therefore improve or worsen ROCE.

(iv) Return on Capital Employed – ROCE

The link between the Balance Sheet and Profit & Loss is dynamically reflected in ROCE.

Definition: The percentage return yielded from the employment of scarce resources in the form of profit before interest and tax

Formula:

$$\frac{\text{EBIT}}{\text{TNA}}$$

OR

Profitability x Activity

The interactive nature of this ratio is seen in the alternative formula as the product of Profitability and Activity. Operational and Balance Sheet efficiency are brought to life in one single ratio. This should be the first area of review in the process of corporate performance assessment, and it should be determined as to whether or not ROCE is adequate and which of its components contribute to both the strengths and weaknesses of the financial strategy.

Irrespective of the type of industry ROCE should at least be equal to or greater than the weighted average cost of capital (WACC) in order for a business to create shareholder value.

Example:

Revenue	100,000
EBIT	10,000
Profitability Ratio	10%
TNA	50,000
Activity Ratio	2x
ROCE	10% x 2 = 20%

It is worth noting that average TNA for the period over which Revenue and EBIT are derived will give a better result that just considering TNA and the end of the period being measured.

It should also be remembered that ROCE does not change when EQUITY is substituted for DEBT. This highlights the impact of a true operational performance measurement.

(v) Interfacing Profit and Loss/(Cash) with the Balance Sheet

The Balance Sheet is just a snapshot of the assets and liabilities of a business at a point in time. However its interaction with profit and loss, through Earnings before Interest and Tax (EBIT), provides the platform for developing a totally dynamic analytical structure.

Two businesses, producing the same sales and return on sales can be viewed from an operational point of view as being identical even if one were funded by debt and the other by equity. This is because the cost of borrowing is purely a financial issue.

ROCE Uses

ROCE can be used in many ways by organisations and management teams as a performance measure and as a tool when preparing budgets and valuations.

One of these ways is that the management team may set ROCE goals for either the entire organisation or its sub-units and decision making in respect of investing in new projects to ensure that the business is performing at a level that is greater than WACC.

ROCE is also able to be used to set up a performance remuneration plan for management and employees. As it is simple to calculate, ROCE provides a transparent model for such programs.

Budgeting and Valuation

Businesses and analysts can often make an underlying error in budgeting or forecasting business performance which impacts a business valuation. When undertaking a valuation the biggest error usually arises from utilising overly optimistic forecasts. Discount rates are generally less susceptible to such errors.

Consider the following 4 charts which simplistically compare Profitability, Activity, Capex to Revenue and ROCE ratios for a mature business and a growth business. The underlying issue is that most budgets for mature businesses more than often assume expanding profitability, increasing activity, reducing levels of capital expenditure for every dollar of sales and therefore increasing ROCE. More often than not a mature business is unlikely to see these improvements on an ongoing basis. While some improvement is always possible continuous expansion is unlikely to be experienced on an ongoing basis and the art of getting the forecasts correct is challenging such ongoing expansion assumptions.

Forecasts for growth businesses often have the opposite issues. It is rare to find a business in NZ that can achieve EBIT margins in excess of 20% on an ongoing basis. At those levels competitors are likely to enter a market and customers generally start looking elsewhere or in-housing the supply. Revenue growth will also demand additional lock up in working capital and additional fixed assets to support the growth. Therefore to create robust forecasts for a growth business at some juncture these charts are likely to level out and this levelling is usually earlier than anticipated generally because the business becomes loose with expenditure.

Taking into account the ratios in the chart helps to reduce the risk of making a budget or forecast error and therefore improves the quality of the budget or forecast and by extension the quality of any valuation based off the same.

What is a "Good" ROCE

ROCE is a measure of a company's profitability and its activity. Quite simply, a good ROCE is a level that exceeds the weighted average cost of capital for the business. Where this is the case the business will be creating value for its shareholders.