The Treasury

SOE Economic Profit Analysis

25 November 2011

Reliance Restricted

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25 November 2011

Mr Andrew Turner
Deputy Secretary
Crown Ownership Monitoring Unit
PO Box 3724
WELLINGTON

Dear Andrew

We are pleased to attach our report showing our calculation of economic profits for selected State Owned Enterprises, Television New Zealand Limited, Public Trust and Air New Zealand Limited for a period of ten years from 2002 to 2011 (inclusive) as per the terms of our engagement letter dated 14 September 2011.

Yours sincerely
Ernst & Young Transaction Advisory Services Limited

Duncan Wylie
Senior Consultant

Abbreviations

Air NZ	Air New Zealand Limited
Airways	Airways Corporation of New Zealand Limited
Animal Control Products	Animal Control Products Limited
AsureQuality	AsureQuality Limited
BCL	Broadcast Communications Limited
DRC	Depreciated replacement cost
EBIT	Earnings before interest and tax
FYxx	Financial year ended xx
Genesis	Genesis Energy Limited
GFC	Global financial crisis
IC	Invested capital
KiwiRail	KiwiRail Limited
Kordia	Kordia Group Limited
Landcorp	Landcorp Farming Limited
Learning Media	Learning Media
Meridian	Meridian Energy Limited
MetService	Meteorological Service of New Zealand Limited
MRP	Mighty River Power Limited
NOPAT	Net operating profit after tax
NZ Post	New Zealand Post Limited
Kiwibank	Kiwibank Limited
PP&E	Property Plant & Equipment
PropertyIQ	PropertyIQ Limited
QV	Quotable Value Limited

Abbreviations

QVRP	QVRP Information Services Limited
ROIC	Return on invested capital
Solid Energy	Solid Energy New Zealand Limited
SOEs	State owned enterprises and selected Crown entities
TSR	Total shareholder return
TVNZ	Television New Zealand Limited
Transpower	Transpower Limited
WACC	Weighted average cost of capital

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Introduction

Background and objectives

- The Treasury has appointed Ernst & Young Transaction Advisory Services Limited (EYTAS) to provide it with a calculation of economic profits for selected state owned enterprises (SOEs), Television New Zealand Limited (TVNZ), Public Trust and Air New Zealand Limited (Air NZ) for a period of ten years from 2002 to 2011 (inclusive) (henceforth the term SOE is used to refer to the entire group). New Zealand Post Limited (NZ Post) and its subsidiary, Kiwibank Limited (Kiwibank), have been treated as separate entities for the purpose of this calculation.
- The Treasury intends to use this report as an input into its consideration of whether, and to what extent, the SOEs are creating value and to benchmark their performance against peers.
- The Treasury would also like an interpretative report having considered feedback from the SOEs and from the Treasury itself.

Methodology adopted

In light of the number of entities (the subject SOEs and their peers) across ten years, the calculations are based on publicly available data, primarily accounting data. Accordingly, the calculations for each firm are for the entity as a whole and not performed at a divisional level. While we have presented results both including and excluding revaluation adjustments (in order to provide return estimates that are closer to a sense of opportunity cost for the shareholder, versus returns based purely on historical cost), accounting carrying values of assets (even where revalued) will inevitably differ from market values. Hence, the return data should not be regarded as definitive, or a proxy for market based assessments such as total shareholder return (TSR). We understand that Treasury undertakes parallel TSR and market value based assessments and this (accounting based) analysis should be regarded as just one "lens" into the complex, multi-factor question of return on investment.

Economic profit for each year is calculated using the following formula:

Economic profit = Opening invested capital x (Return on invested capital or (ROIC) – Weighted average cost of capital (WACC)

Where:

- Opening invested capital equals the sum of
  - Shareholders' equity;
  - Net interest bearing debt, and
  - Revaluation gains on fixed assets.

- *Less:*
  Capital work in progress;
  Financial assets held for sale;
  Minority interests, and
  Investments not deemed as integral to the operations of the firm.

- Return on invested capital is calculated by dividing net operating profit after tax (NOPAT) by the opening invested capital. NOPAT is calculated as follows:
  - Operating profits are defined as earnings before interest and taxes (EBIT) adjusted for revaluation gains or losses. In keeping with the calculation of invested capital, we also exclude the impact of earnings on financial assets held for sale, earnings attributable to minority interests and earnings attributable to investments not deemed to be integral to the operations of the firm. We have excluded the impact of gains or losses on the sale of fixed assets on the basis that reported gains or losses do not reflect the core operations of the business. An alternative approach may be to consider such gains or losses as reflecting over or under-recovery of depreciation if assets are used to the end of their economic lives. If the alternative approach were to be adopted, the correct approach would require that the gains or losses are spread over their useful lives and not fully accounted in the period in which these are disposed.
  - For this exercise, tax is calculated as the product of the company tax and operating earnings before tax calculated as above. Thus, for example, we calculate tax on revaluation gains (excluding land, where sufficient information is available to separate revaluation gains or losses on land).[1] If, in any period, earnings are negative, no tax is calculated. Whilst tax losses will generally be available to reduce future taxes, for the purpose of this exercise we do not adjust future taxes for the impact of past losses. This gives a better representation of the economic income generated in each period.
  - Where the firm does not revalue its fixed assets annually, reported gains or losses are smoothed over the period between revaluations. This is done by estimating the annual average percentage increase in the carrying value from the start of the period and applying that rate evenly over the period.
  - We do not make any adjustments to historical earnings for changes in the financial reporting standards over the ten year period. Based on our experience, we do not anticipate material changes in reported earnings. We note however that fair value adjustments for financial instruments are now required to be included in the financial statements and, where these are included in the calculation of income, impact the comparability of numbers pre and post the adoption of the new reporting standards.

[1] This assumption is consistent with our use of the full company tax rate in our calculation of the weighted average cost of capital (see below). If a (notional) tax charge on revaluation gains was not included, it would be appropriate to apply a correspondingly lower effective tax rate in the WACC. For a business with a return on invested capital equal to WACC, these adjustments would be exactly offsetting.

- Except in the case of Kiwibank Limited (Kiwibank) and Public Trust, fair value movements for financial instruments are ignored where the firm uses financial instruments, such as interest rate swaps, to manage its borrowings.
- Where the firm uses financial instruments as an integral part of its operations, such as electricity price hedge contracts, changes in the fair value of these instruments are also included in the calculation of economic profits (e.g. Solid Energy Limited). Where a firm uses financial instruments to manage both debt and operations (e.g. hedging price/foreign exchange risk and interest rate exposures), we have included all fair value movements in the calculation of economic profits, since we do not have the sufficient information required to include only those movements that are used to manage operational volatility.
- Except in the case of Air NZ, we do not capitalise operating leases and treat these as debt. This is due to both issues in obtaining sufficient information and also because operating leases are unlikely to be material in the context of the operations of a firm. In the case of Air NZ, we capitalise operating leases for aircraft using published data. Expenses are adjusted by deducting an implicit interest charge from lease rentals using the pre-tax cost of debt.

- WACC is calculated using the following formula:

$$WACC = R_e \cdot \frac{E}{V} + R_d \cdot (1-t) \cdot \frac{D}{V}$$

where:

R_e = Cost of equity

R_d = Cost of debt

E = Value of equity

D = Value of net debt

V = Value of equity plus net debt

t = Corporate tax rate

- We have elected to use a one year WACC in light of the underlying premise of the analysis; that is, an assessment of the performance of the firm and its management team on a year-on-year basis against the notional fair rate of return applicable to that period. Secondly, the term of the discount rate also matches the period for which economic profits are being measured. We acknowledge that this may introduce an element of year-on-year variability relative to using, say a 5 or 10 year WACC (that we might use for other purposes such as valuations). However, on balance, we consider the use of a one year de factor management performance hurdle as the better option.

- We have used the imputation-adjusted simplified version of the Brennan-Lally capital asset pricing model to estimate the cost of equity (R_e) using the formula:

  $R_e = R_f * (1 – t) + \beta_e$ * Market risk premium

  where:
  R_f = 1-year government bond yield
  β_e = Equity beta

- The same asset beta is used for the entire period. This is based on our view that asset betas should be stable and estimates derived using comparable companies are in any case subject to measurement errors. We use medians derived from a sample of broadly comparable listed entities for most SOEs. In the case of Transpower Limited (Transpower), we have used the asset beta prescribed by the Commerce Commission in its determination dated 8 July 2011. We have obtained both 5-year monthly and 2-year weekly estimates of equity betas together with the R-square measure (which measures the degree of correlation between returns on the stock and the broader market). We have excluded from the sample any company where the R-square for both the 2-year weekly and the 5-year monthly is less than 0.1 (i.e. where less than 10% of the change in returns for a stock is explained by a change in returns of the index).
- Debt premiums are based on credit ratings where the firm is rated. Otherwise, we have assumed the firm would have a BBB rating. We use the average spread for a basket of US-corporate bonds with one year to maturity over comparable US-Treasury bonds because of the depth and liquidity of the US market. We note that companies may be able to borrow at rates that are lower than those used for the purposes of this analysis (for example by using structures including securitisations or by offering specific security against liquid assets). Our approach reflects a market cost looking forward given the one-year economic profit metrics that are calculated.
- We assume a market risk premium of 7.5%.
- The cost of capital is estimated at the beginning of each financial period. Thus, the estimate for 2011 is based on market data as at 1 July 2010. This is based on the assumption that managers are given a hurdle that they are required to beat at the beginning of the fiscal period. This merely represents the framework used by us for the analysis and does not purport to represent how targets are actually set.

ROIC

We have attempted to obtain a large sample of comparable companies for each firm. ROIC data is reported where available for each period. The performance of each firm is shown together with the returns at the 25th, the 50th and the 75th percentile of the sample. This provides some indication of the performance of each firm relative to its peers. However, any comparison should take into consideration the following:

- Differences in financial reporting standards, both across time and across countries, will impact calculated returns.
- Calculated returns will also be affected by firms' choices between available accounting policies. For example, our approach to the inclusion of revaluation gains may impact the comparability of results.
- Whereas we have adjusted economic profits and invested capital for each target firm, we have not made comparable adjustments for the companies in the benchmark sample.
- Whilst we have graphically presented the ROIC of subject SOEs with that of peers, the value of such comparison has limits and should be treated with caution. All else equal, two entities in differing markets may display different ROIC (expressed in percentage terms) despite each generating zero economic profit relative to the appropriate WACC for their jurisdiction. A WACC for the "average" NZ firm may be higher (in percentage terms) than that for, say, a US firm where risk free rates may be lower and the market risk premium is conventionally adopted at a lower level. One might reasonably expect firms that are subject to some form of rate of return regulation in the irrespective markets to tend towards (differing) jurisdiction specific market levels, while economic profit may be the same for each (zero, if each earns the market rate).
- Since the firms generally operate in different markets, reported returns will also be affected by differences in local regulation, and the structure of the industry in each market including the level of competition, market growth and so on.
- Comparability of results will also be affected by the average life of fixed assets and the average age of plant. For example, in the case of firms with power generation stations, the average life of the plant is relatively long. Returns calculated using reported book values for a firm with plant that is "old" may be higher than for a firm that has relatively new plant.
- The calculations are sourced from an external data provider.
- Finally, the selection of the sample also affects the benchmark returns.

As a result, the comparison with the benchmark sample should be considered more as a starting point to understand reasons for differences in performance rather than being indicative of under or out-performance by the SOE in question.

Finally, we have attempted to smooth the impact of revaluations over the 10 year period. However, we understand that the revaluations in the first half of the period may represent a “catch up” over a much longer period (that is, the gains and losses reflect differences in market values and historical costs that are longer than the periods for which we have computed economic profits). If this is true, the results for the SOEs in the earlier periods will be skewed upwards. However this issue is likely to have little to no impact on subsequent revaluation gains or losses (the impact depends on whether subsequent revaluations are also affected by the impact of gains and losses that reflect much longer periods than used for smoothing).

WACC calculations

As a general observation we note that the cost of capital for 2010 and 2011 is lower than in the prior eight years. This is a consequence of the significant decline in risk free rates post the global financial crisis, partly as a consequence of a reported “flight to quality” (i.e. investors shunning more risky assets in preference for government securities) and also partly because the global recovery has been relatively weak. In 2010, the reduction in interest rates was partially offset by an increase in credit margins. However credit margins have declined in 2011, although not to levels in the period prior to the onset of the recession.

Since required rates of return are lower and reflect the more difficult economic conditions, we would also expect earnings might be correspondingly lower.

In their feedback to the initial estimates provided for comments, some of the SOEs have noted that other market analysts have adjusted their estimates of risk free rates on the basis that rates in 2010 and 2011 are at cyclical lows and that risk free rates will “normalise when international market conditions normalise”. We have chosen not to make such an adjustment because such an adjustment will inevitably be subjective. We have opted to use observed market yields. As a result, to the extent that market determined rates are “too low” (which implies that these rates are not justified by economic fundamentals but are driven by other short term factors) our estimates of economic profits will be “too high”.

As described above, our asset beta estimates are based on a sample of broadly comparable companies. We have attempted to use a large sample and used sample medians in order to reduce errors in the beta estimates. The sample sizes for each SOE vary between 3 (for Public Trust) to 34 (for Air NZ) with an average of 17 sample companies for 17 of the 19 SOEs. For Transpower we have used the estimate published by the Commerce Commission and for the Meteorological Service of New Zealand Limited (MetService) we have derived an estimate based on our professional judgement (based on our understanding of the nature of operations for the company).

Our beta estimates may differ from those used by other market analysts for some of the SOEs. In particular we note that our estimate for the asset beta for the gentailers (Meridian Energy Limited (Meridian), Mighty River Power Limited (MRP) and Genesis Energy Limited (Genesis)) at 0.40 is lower than the asset beta estimates used by other analysts (0.56 to 0.60 in recent periods). However, due to differences in assumed leverage, the equity betas are very similar (0.72 versus 0.69 to 0.75 used by other analysts). The key points to note are:

- In our experience beta estimates may differ depending on the measurement period used (e.g. 2 years versus 5 years etc.) and on the approach used (e.g. raw versus adjusted betas).
- We have had regard to benchmarks used by the Treasury in earlier exercises.

Based on the relatively robust sample sizes for many of the SOEs, we have used the medians calculated by us, supplemented by our judgement and economic intuition, for the estimation of asset and equity betas as appropriate.

Differences between EYTAS' economic profit calculations and calculations issued by the SOEs

Several SOEs publish their estimates of economic profits. The economic profit estimates provided in this analysis may differ from the estimates published by the SOEs. We have not sought to reconcile the numbers. Some of the major sources of the differences are as follows:

- Differences in approach:
  - Smoothing risk free rates and/or borrowing margins using averages.
  - Using a longer term cost of capital estimate (e.g. five year WACC instead of annual WACC estimates used by EYTAS).
  - Calculation of economic profits by division (we have calculated it for the firm as a whole).
  - The use of average rather than opening invested capital for the calculations.
  - The exclusion of revaluations gains or losses, impairments and fair value movements in financial instruments.
- Differences in estimates:
  - Differences in the estimates for asset betas and leverage assumptions. Differences in asset betas may be driven by both assumptions regarding the operating risks faced by the business and in the data used to derive this estimate.

Some of the firms need to report economic profits for their regulated businesses. Our calculations do not purport to provide any indication as to whether we agree or disagree with their economic profit calculations. Especially in the context of regulated businesses, our calculations should be viewed as high level estimates using publicly available data.

Introduction

Economic Value Added

Our calculations are not based on the approach advocated by Stern Stewart and Co. that has been termed as Economic Value Added by the firm. The approach adopted by Stern Stewart and Co. differs most particularly in the approach to the treatment of revaluation gains and losses.

Alternative calculations

Based on a specific request on 17 November 2011, we are also presenting the calculations of economic profits by eliminating the impact of asset revaluations from the financial results. These calculations are only approximate and have been obtained by making the following adjustments to earnings and invested capital:

- Revaluation gains or losses are excluded from NOPAT.
- Asset revaluation reserves are excluded from opening invested capital.
- Depreciation is reduced using the ratio of the revaluation reserve to total depreciable fixed assets for the year.
- Tax is adjusted after adjusting earnings for depreciation and revaluation gains or losses as described here.

Where sufficient information is not available on the allocation of revaluation gains or losses between land (non-depreciable) and other fixed assets we have not adjusted depreciation.

These calculations are presented for the following entities:

- AsureQuality Limited (AsureQuality)
- Genesis
- Landcorp Farming Limited (Landcorp)
- Meridian
- MRP
- NZ Post
- Transpower

Introduction

Summary of economic profits

The tables below summarise the economic profits calculated both including and excluding revaluations. In the second table revaluation adjustments are made only for those entities that revalue their fixed assets. Otherwise, the historical numbers are repeated from the first table.

Economic profits summary (including revaluations)

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Air NZ	(545,453)	24,122	55,086	52,251	(24,918)	(5,909)	5,975	(142,113)	(85)	(46,574)
Airways	3,076	4,257	5,111	5,212	5,556	6,658	4,863	(935)	275	1,309
Animal Control Products	649	329	421	758	1,043	755	732	520	658	1,185
AsureQuality	2,766	2,261	4,615	4,410	4,477	(1,403)	1,612	2,545	4,812	5,340
Genesis Energy	30,561	52,054	48,795	55,907	(55,485)	(77,268)	(47,898)	(105,630)	99,394	70,017
KiwiRail	n/a	n/a	n/a	n/a	n/a	n/a	n/a	(1,180,212)	(1,225,931)	(1,014,495)
Kordia	n/a	n/a	n/a	n/a	(1,048)	(3,447)	(9,178)	(21,904)	(12,091)	(30,319)
Landcorp	40,760	(42,834)	55,113	88,284	235,385	(77,549)	149,378	(230,795)	(219,947)	17,673
Learning Media	790	627	(332)	113	619	(80)	(3,672)	1,309	1,418	527
Meridian	166,758	162,035	333,726	389,689	330,378	842,752	(78,899)	(26,965)	150,652	(66,760)
MetService	2,423	2,202	2,435	3,484	2,355	1,877	2,689	2,658	2,484	2,432
MRP	112,268	160,137	195,953	215,099	125,104	57,743	62,059	239,941	184,710	170,076
NZ Post	6,878	15,813	29,060	32,398	27,126	22,335	13,911	(29,157)	(64,180)	(55,719)
KiwiBank	n / a	(19,756)	(6,545)	(3,741)	2,235	9,988	(382)	(25,550)	34,584	(27,250)
Public Trust	n / a	(4,402)	(4,184)	(3,429)	(2,467)	(756)	(38,870)	(54,174)	4,983	(714)
QV	250	1,427	23	627	973	989	11,075	(948)	(1,554)	(3,678)
Solid Energy	19,535	37,281	25,261	(4,144)	66,348	52,147	(18,759)	81,952	34,800	46,286
TVNZ	(18,399)	(10,300)	(13,317)	2,031	(21,007)	(19,962)	(11,806)	(17,752)	(11,304)	(6,701)
Transpower	35,610	(54,208)	(2,443)	35,778	1,131	16,202	11,118	31,372	86,080	53,785

Source: Annual reports & EYTAS

Ref: Summary - Economic profit

Introduction

Economic profits summary (excluding revaluations, where applicable)

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Air NZ	(545,453)	24,122	55,086	52,251	(24,918)	(5,909)	5,975	(142,113)	(85)	(46,574)
Airways	3,076	4,257	5,111	5,212	5,556	6,658	4,863	(935)	275	1,309
Animal Control Products	649	329	421	758	1,043	755	732	520	658	1,185
AsureQuality	2,766	2,261	3,529	3,417	3,646	(2,495)	1,669	4,394	5,994	6,260
Genesis Energy	(17,451)	6,688	5,637	19,135	28,035	(4,183)	5,971	(59,212)	36,985	12,254
KiwiRail	-	-	-	-	-	-	-	208,968	161,109	58,680
Kordia	n/a	n/a	n/a	n/a	(1,048)	(3,447)	(9,178)	(21,904)	(12,091)	(30,319)
Landcorp	3,839	(11,462)	(11,299)	(19,257)	(8,194)	(22,029)	(20,623)	(50,501)	(35,576)	(7,112)
Learning Media	790	627	(332)	113	619	(80)	(3,672)	1,309	1,418	527
Meridian	(34,242)	(4,813)	39,693	99,846	35,436	102,597	48,148	6,721	158,027	133,662
MetService	2,423	2,202	2,435	3,484	2,355	1,877	2,689	2,658	2,484	2,432
MRP	(4,501)	43,702	72,523	96,567	84,854	30,556	(7,493)	213,913	60,227	35,516
NZ Post	5,001	20,399	28,963	26,451	21,780	22,986	27,698	(10,740)	(45,892)	(39,564)
KiwiBank	n / a	(19,756)	(6,545)	(3,741)	2,235	9,988	(382)	(25,550)	34,584	(27,250)
Public Trust	n / a	(4,402)	(4,184)	(3,429)	(2,467)	(756)	(38,870)	(54,174)	4,983	(714)
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Solid Energy	19,535	37,281	25,261	(4,144)	66,348	52,147	(18,759)	81,952	34,800	46,286
TVNZ	(18,399)	(10,300)	(13,317)	2,031	(21,007)	(19,962)	(11,806)	(17,752)	(11,304)	(6,701)
Transpower	(7,463)	(31,959)	1,227	35,778	1,131	16,202	11,118	31,372	86,080	53,785

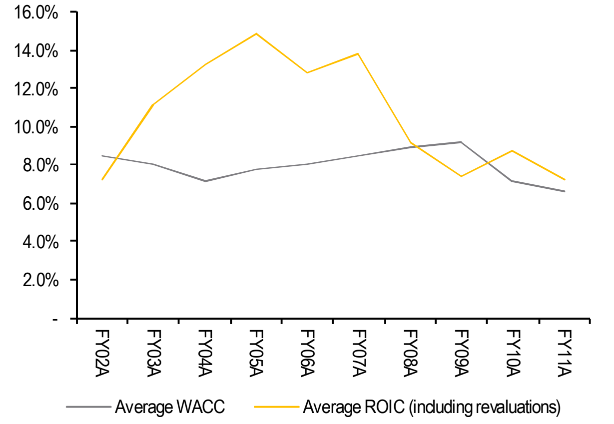
Source: Annual reports & EYTAS

Ref: Summary - Economic profit

Introduction

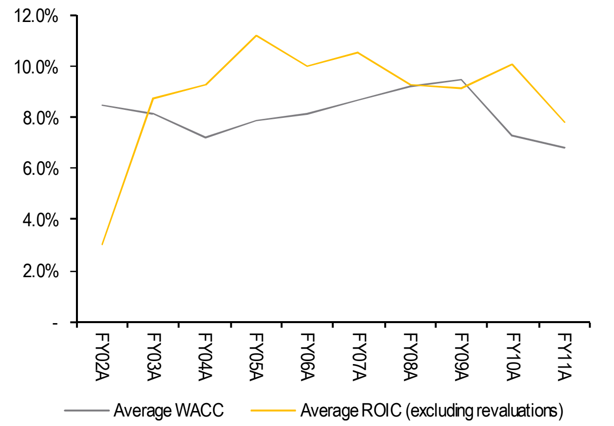
Comparison of WACC and ROIC (including revaluations)

Source: EYTAS calculations



Comparison of WACC and ROIC (excluding revaluations)

Source: EYTAS calculations



Summary comparisons (excluding KiwiRail)[2]

In the charts on the left we show a comparison of average WACC and the average ROICs (both including and excluding the impact of revaluations), excluding KiwiRail. The averages are calculated by weighting both the WACCs and the ROICs by the invested capital in each SOE (using revalued and historical cost based estimates of invested capital, respectively).

Whilst the spread (difference) between the ROIC and the WACC differs when revaluations are included, we note that the trend appears to be very similar. The average ROIC is greater than the average WACC across the portfolio and appears to dip below the WACC only in FY09. The results of the last three years will be impacted by the inclusion of fair value movements on derivatives for the SOEs (when included, see individual company descriptions for details). Over the historical period, the charts suggest that the portfolio sub-set has created economic value or wealth.

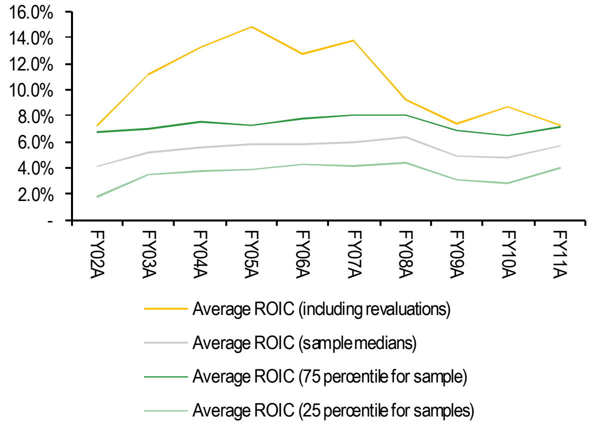
Any conclusions from the analysis must take into consideration the limitations regarding data and those imposed by the approach as noted earlier.

[2] KiwiRail is excluded because of the factors described in the section showing the analysis for the firm. That is, economic profits have particularly limited relevance for the firm.

Introduction

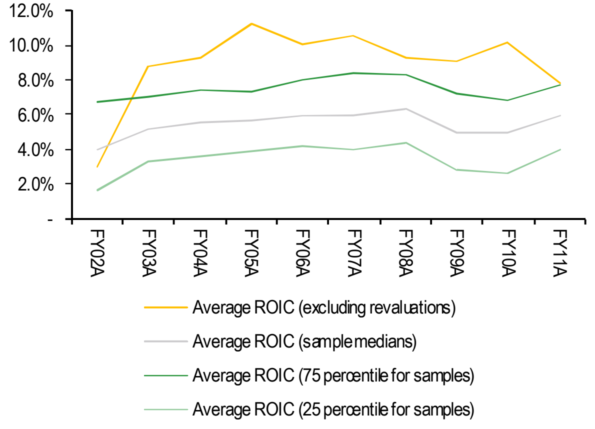
Comparison of ROIC with sample (including revaluation)

Source: EYTAS calculations, Capital IQ and Factset



Comparison of ROIC with sample (excluding ROIC)

Source: EYTAS calculations, Capital IQ and Factset



Comparison of returns with benchmark sample (excluding Kiwirail)

The charts on the left compare the weighted average ROICs for the SOEs with the weighted average sample statistics for the benchmark sample (excluding KiwiRail). Both charts suggest again that, on average, the SOEs have performed favourably when compared to the averages for the quartiles computed for the benchmark companies.

The summary charts must be interpreted keeping in mind the issues described above. In particular, the estimates of quartile returns for the benchmark samples are dependent on the choice of comparable companies. If the companies are considered to be relevant comparators, then the comparison is best used as one input to further analysis as to whether, and to what degree, the observed results are attributable to:

- Structural differences in the markets;
- Differences in the level of competition and the impact of scale economies;
- Differences in the WACC applicable to the various jurisdictions (see discussion above regarding the potential for two equivalent firms to both generate zero economic profits despite reporting different ROICs), and / or
- Other factors.

Economic profit analysis

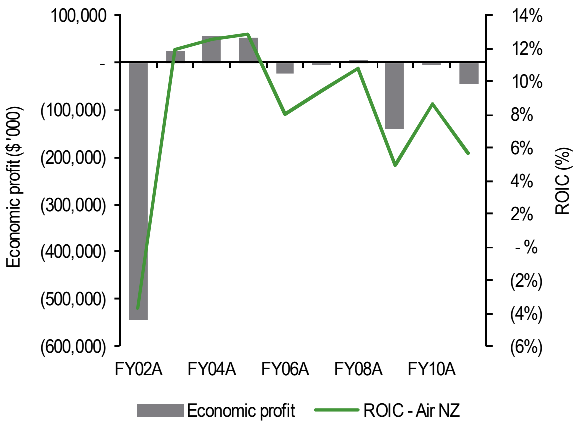
1. Air New Zealand Limited
2. Airways Corporation of New Zealand Limited
3. Animal Control Products Limited
4. AsureQuality Limited
5. KiwiRail Limited
6. Kordia Group Limited
7. Landcorp Farming Limited
8. Learning Media Limited
9. Meteorological Service of New Zealand Limited
10. New Zealand Post Limited (excluding Kiwibank Limited)
11. Kiwibank Limited
12. Public Trust
13. Quotable Value Limited
14. Solid Energy New Zealand Limited
15. Television New Zealand Limited
16. Transpower Limited
17. Genesis Energy Limited

18. Meridian Energy Limited
19. Mighty River Power Limited

Air New Zealand Limited

Economic profits and ROIC

Source: Annual reports & EYTAS calculations



Air New Zealand Limited

Determination of economic profit

We have made the following adjustments to calculate economic profits for Air NZ:

- We have included fair value adjustments on hedging in Air NZ's economic profit. Hedging activities relate to both fuel and financial instrument hedges, and are therefore treated as operational and are included in economic profits.
- Operating leases for aircraft have been capitalised and included in invested capital. The capitalisation rate is based on a long term pre-tax cost of debt based on the company's credit rating over the period. Lease rentals are therefore adjusted by deducting the "implicit interest" using the same pre-tax cost from the lease expense. We have adjusted the data sourced from annual reports based on feedback received from the company on leases for aircraft that were not delivered in the year in question.
- We have not excluded income for assets held for sale as the data is unavailable in the financial reports, and for consistency we have included these assets in invested capital. It appears that the assets held for sale are aircraft but is not clear whether or not these continue to be used for regular operations prior to sale.
- Income from investment in the Christchurch engineering facility and vCubed is included in the economic profit calculations as these are assumed to relate to the core operations of the company.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	3,860,049	1,870,927	1,657,822	1,520,131	1,874,302	2,391,430	2,565,830	2,068,625	1,648,002	2,064,215
NOPAT	(141,814)	222,253	207,348	195,170	150,378	226,688	277,941	101,711	142,397	116,214
Return on invested capital	(3.7%)	11.9%	12.5%	12.8%	8.0%	9.5%	10.8%	4.9%	8.6%	5.6%
WACC	10.5%	10.6%	9.2%	9.4%	9.4%	9.7%	10.6%	11.8%	8.6%	7.9%
Spread over WACC	(14.1%)	1.3%	3.3%	3.4%	(1.3%)	(0.2%)	0.2%	(6.9%)	(0.0%)	(2.3%)
Economic profit	(545,453)	24,122	55,086	52,251	(24,918)	(5,909)	5,975	(142,113)	(85)	(46,574)

Source: Annual reports & EYTAS

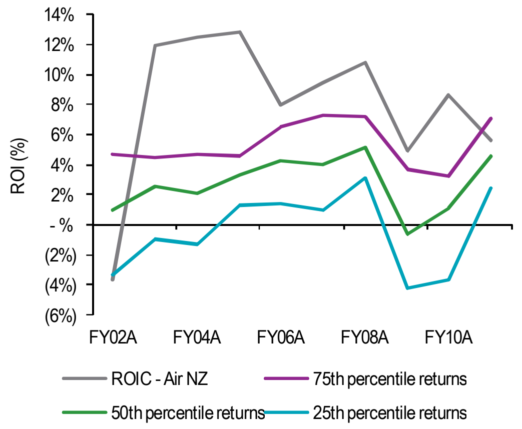
Ref: Air NZ - ROIC

- The table above shows Air NZ's ROIC and economic profit over the period FY02 to FY11.
- The loss making Ansett operation was divested in 2003 and Air NZ stated that it had adopted a new business model, including greater emphasis on on-line bookings, no meals in the express class and discontinuation of the business class on domestic flights to align with the new low cost strategy.

Air New Zealand Limited

ROIC comparison with sample

Source: Capital IQ and Factset



- The company has informed us that its actual cost of borrowing is lower because it is able to raise debt secured against aircraft or by using structured financial arrangements. As a result, their cost of borrowing is lower than that implied by their long term credit rating. As described in the introduction, our analysis does not take the more favourable cost of debt into consideration.

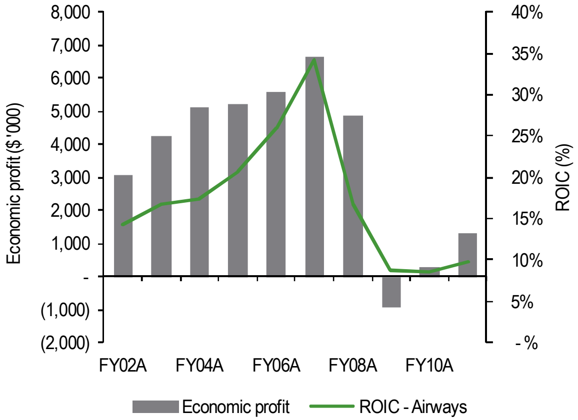
Benchmark comparison

- As shown in the graph to the left, Air NZ's ROIC lies in the upper quartile of the benchmark returns between FY03 and FY10. Movements in returns for the sample and Air NZ appear to be broadly correlated until FY11.
- A number of events in 2011 such as the Queensland flooding, the Christchurch and Japanese earthquakes, and the volcanic eruption in Chile contributed to a difficult second half of the financial year for the company. A combination of these events and volatile fuel prices resulted in a loss in the second half of FY11.

Airways Corporation of New Zealand Limited

Economic profit and ROIC

Source: Annual reports & EYTAS adjustments



Airways Corporation of New Zealand Limited

Determination of economic profit

We have made the following adjustments to calculate economic profit for Airways:

- We have not included movements on foreign exchange cash flow hedges or interest rate derivative related hedge movements. Correspondingly, invested capital does not include reserves related to the fair values of financial instruments.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	58,811	55,096	57,423	45,675	33,465	27,274	72,092	64,636	65,991	64,929
NOPAT	8,342	9,249	9,919	9,397	8,683	9,308	12,093	5,624	5,688	6,345
Return on invested capital	14.2%	16.8%	17.3%	20.6%	25.9%	34.1%	16.8%	8.7%	8.6%	9.8%
WACC	9.0%	9.1%	8.4%	9.2%	9.3%	9.7%	10.0%	10.1%	8.2%	7.8%
Spread over WACC	5.2%	7.7%	8.9%	11.4%	16.6%	24.4%	6.7%	(1.4%)	0.4%	2.0%
Economic profit	3,076	4,257	5,111	5,212	5,556	6,658	4,863	(935)	275	1,309

Source: Annual reports & EYTAS adjustments

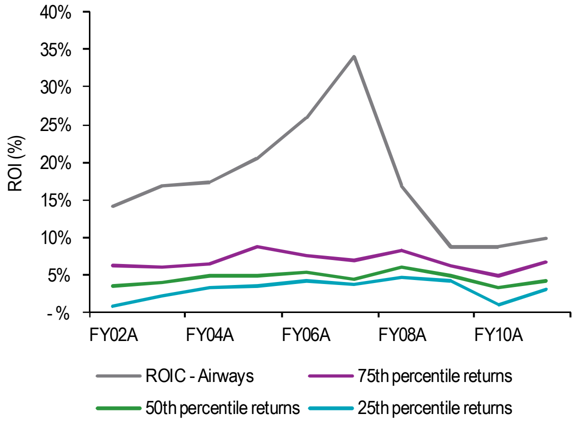
Ref: Airways - ROIC

- Airways reported a positive economic profit during the period FY02 to FY08, but in FY09 economic profit declined significantly reflecting an increase in opening invested capital from FY08 onwards and a significant reduction in NOPAT (ROIC declined from 16.8% in FY08 to 8.7% in FY09). The decrease in ROIC in part reflects increased wage and salary expenditure (including termination benefits) of $6.7 million and an increase in other operating costs of $2.7 million. The company has informed us that it instituted a cost reduction programme to mitigate the impacts of the global recession and to ensure that banking covenants were not breached.
- The reduction in ROIC in FY09 also reflected both increases in oil prices and the impact on Airways' customers of the financial crisis, who quickly cut capacity and flights, resulting in a 1.1% decline in air navigation service delivery revenues.
- The increase in capital reflects an investment made by the firm in various capital assets including the Christchurch Airport Tower, a new voice switching system, installation of electronic flight strips and an upgrade to the Instrument Landing System at Auckland International Airport to CAT III.
- Cumulative economic profits for the period FY02 to FY11 equal $35 million (rounded). This compares with the published estimates by the company that shows that the company made economic profits of approximately $17 million over the same period. The difference is mainly due to differences in methodology and the level of detail. For example, Airways uses the average invested capital,

Airways Corporation of New Zealand Limited

ROIC comparison with sample

Source: CapitalIQ and Factset



undertakes separate analysis for Air Navigation Services and for the international business, capitalises treasury gains/losses (arising from calculated differences between market interest rates and opportunity cost of debt) and also capitalises leases ($14 million in FY10). The difference in results does not imply that either approach is incorrect but merely highlights the issue that there isn't one "standard" approach to the estimation of economic profits.

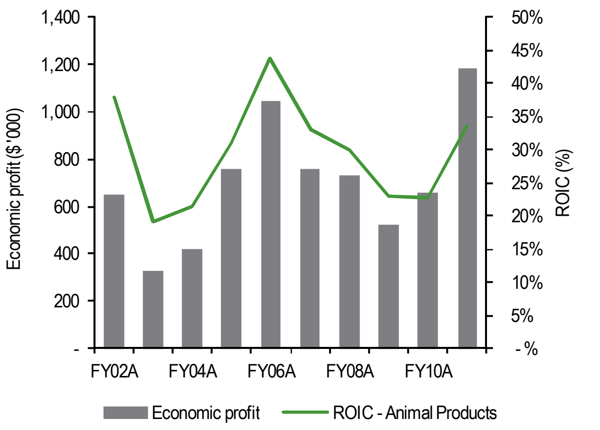
Benchmark comparison

- The sample of 12 broadly comparable companies primarily consists of companies that operate airports internationally. None of the companies in the sample solely operated air navigation services and we recognise that there are significant differences in operating leverage between airport operators and Airways.
- Whilst the company's returns lie in the upper quartile throughout the 10 year period, the difference in returns may reflect differences in the nature of operations and the invested capital (investments in airports and runways would be significantly greater than the case for Airways).

Animal Control Products Limited

Economic profit and ROIC

Source: Annual reports & EYTAS adjustments



Animal Control Products Limited

Animal Control Products became an SOE in 2004 but was a government owned entity prior to that date.

Determination of economic profit

We have made the following adjustments to calculate economic profit for Animal Control Products:

- We have included in opening invested capital reserves of $1.6 million. The nature of these reserves cannot, however, be ascertained from the financial statements.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	2,286	3,402	3,356	3,557	3,093	3,318	3,781	4,191	4,687	4,696
NOPAT	866	654	720	1,104	1,350	1,097	1,133	965	1,060	1,574
Return on invested capital	37.9%	19.2%	21.5%	31.0%	43.6%	33.1%	30.0%	23.0%	22.6%	33.5%
WACC	9.5%	9.6%	8.9%	9.7%	9.9%	10.3%	10.6%	10.6%	8.6%	8.3%
Spread over WACC	28.4%	9.7%	12.5%	21.3%	33.7%	22.8%	19.4%	12.4%	14.0%	25.2%
Economic profit	649	329	421	758	1,043	755	732	520	658	1,185

Source: Annual reports & EYTAS adjustments

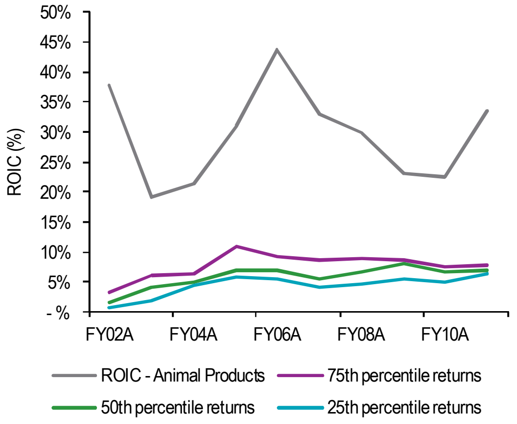
Ref: Animal Products - ROIC

- Reported ROIC was in excess of 20% over the entire period. Earnings increased in FY06 as a result of an increase in sales due to the early implementation of the Maungatautiri rodent eradication program, and an increase in the use of pre-feed bait in aerial operations.
- In recent periods performance has been affected by adverse public reaction to the use of 1080.

Animal Control Products Limited

ROIC comparison with sample

Source: Capital IQ and Factset



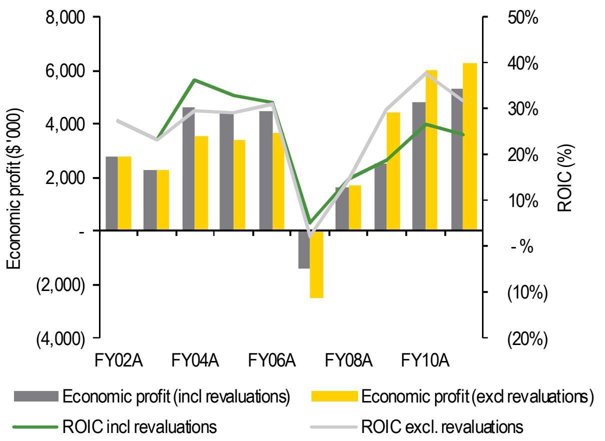
Benchmark comparison

- Benchmark returns are based on a sample of 19 companies that are only broadly comparable and includes companies manufacturing chemicals and pesticides. Potentially as a result of the difference in the nature of operations, Animal Control Product's ROIC lies in the upper quartile of the benchmark returns over the ten year period.

AsureQuality Limited

Economic profit and ROIC

Source: Annual reports, EY calculations



AsureQuality Limited

AsureQuality was established as a state owned enterprise on 1 October 2007, by amalgamating the operations of Asure New Zealand Limited and AgriQuality Limited. We have added the NOPAT and opening invested capital of both companies prior to the date of amalgamation to calculate historical returns and economic profits.

Determination of economic profit

We have made the following adjustments to calculate economic profits for AssureQuality:

- Movements in foreign exchange translation reserves are included as these reflect the fact that the firm has operations in Australia and Singapore (from 2010).
- Revaluations of the carrying value of property, plant and equipment have been included.
- Capital work in progress has been excluded from opening invested capital. The adjustment however does not include current contract work in progress.
- We have excluded any gains or losses realised from the sale of any property plant or equipment during the period.

We also present an alternative set of calculations after excluding the impact of revaluations from earnings and invested capital.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	14,901	15,548	16,473	18,318	20,126	33,475	33,242	27,784	25,670	31,556
NOPAT	4,046	3,608	5,937	6,027	6,290	1,743	4,841	5,247	6,778	7,668
Return on invested capital	27.2%	23.2%	36.0%	32.9%	31.3%	5.2%	14.6%	18.9%	26.4%	24.3%
WACC	8.6%	8.7%	8.0%	8.8%	9.0%	9.4%	9.7%	9.7%	7.7%	7.4%
Spread over WACC	18.6%	14.5%	28.0%	24.1%	22.2%	(4.2%)	4.9%	9.2%	18.7%	16.9%
Economic profit (incl revaluations)	2,766	2,261	4,615	4,410	4,477	(1,403)	1,612	2,545	4,812	5,340
Economic profit (excl revaluations)	2,766	2,261	3,529	3,417	3,646	(2,495)	1,669	4,394	5,994	6,260
ROIC excl. revaluations	27.2%	23.2%	29.4%	29.3%	30.9%	1.9%	14.7%	29.9%	37.6%	31.6%

Source: Annual reports & EYTAS adjustments

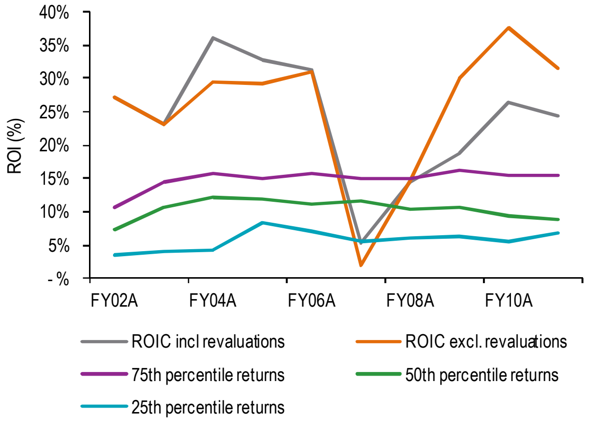
Ref: AsureQuality - ROIC

- AssureQuality's economic profit fell by circa $8 million in FY07 reflecting the combined impact of margin decline, the write-off of a loan, a loss on sale of an associate of approximately $2 million and an increase in invested capital.

AsureQuality Limited

ROIC comparison with sample

Source: Capital IQ and Factset



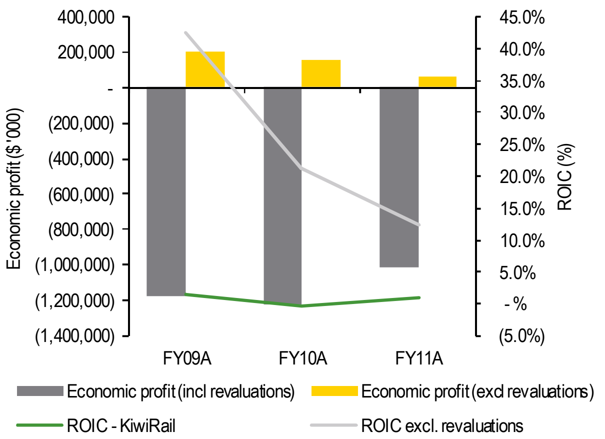
Benchmark comparison

Benchmark returns are based on a sample of 14 companies that include a mix of direct competitors (SGS) and broadly comparable companies. AsureQuality's ROIC lies in the upper quartile in all years other than FY07.

KiwiRail Limited

Economic profits and ROIC

Source: Annual reports, EY calculations



KiwiRail Limited

The computation of economic profits for KiwiRail is undertaken post July 1 2008, when the company was acquired by the Crown. Given the points raised below, an analysis of economic profits and ROIC has limited application for KiwiRail and the results of the mechanical application of the chosen methodology must therefore be treated with particular caution.

Determination of economic profit

We have made the following adjustments to calculate economic profit for KiwiRail:

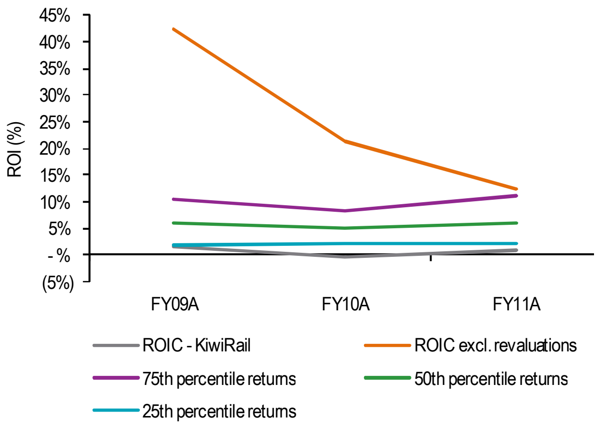
- Grant income has been included. These grants (operating, metro project and other capital grants) are recognised as the company is a mixed objectives entity, and grants represent a source of income required for the firm to fulfil its legal requirements. We note, however, that this grant income is material (particularly with reference to Metro operations in Auckland and Wellington) and, if excluded, earnings are negative.
- Revaluations of fixed assets have been smoothed over the period, to which they apply (i.e. for land and rail infrastructure we have spread the revaluations over a two year period).
- Capital work in progress has been excluded from opening invested capital as it represents unfinished Metro line upgrade projects and does not form part of the operational business assets.
- The net change in the fair value of derivatives is included as these relate to hedging of oil prices and foreign currency.
- Loss on transfer of rolling stock to the Greater Wellington Regional Council in FY11 (approximately $107 million) is excluded from the calculations.

The chart also shows the calculation using historical costs (i.e. excluding the impact of revaluations). The differences in the economic profits highlights both the difference between reported fair values and historical costs of the assets, and the impact of excluding revaluations to estimate economic profits If revaluation reserves are excluded, the invested capital declines to approximately $1.6 billion from $12.4 billion in FY11 for example.

KiwiRail Limited

ROIC comparison with sample

Source: Capital IQ and Factset



Historical economic profit

Economic profit summary

Currency: $ 000	FY09A	FY10A	FY11A
Opening invested capital	11,877,634	12,415,723	12,374,973
NOPAT	174,792	(56,048)	103,025
Return on invested capital	1.5%	(0.5%)	0.8%
WACC	11.4%	9.4%	9.0%
Spread over WACC	(9.9%)	(9.9%)	(8.2%)
Economic profit (incl revaluations)	(1,180,212)	(1,225,931)	(1,014,495)
Economic profit (excl revaluations)	208,968	161,109	58,680
ROIC excl. revaluations	42.4%	21.2%	12.5%

Source: Annual reports & EYTAS adjustments

Ref: KiwiRail - ROIC

- The economic profit and return on invested capital are arguably of little relevance for the following reasons:
  - Currently the entity is designated as a mixed objectives entity and values its assets on a depreciated replacement cost basis. The market values of these assets (based on their income generating capacity) are likely to be materially lower. Indeed the company has disclosed its initiative to deliver on a Turnaround Plan for the business. That plan involves a period of heavy, catch-up capital expenditure believed to exceed earnings generated over the period, balanced by government equity injections. In that context, the economic value of assets in a non-public benefit entity context is likely to be far below depreciated replacement cost carrying values, such that an ROIC analysis becomes moot pending delivery of the Turnaround Plan.

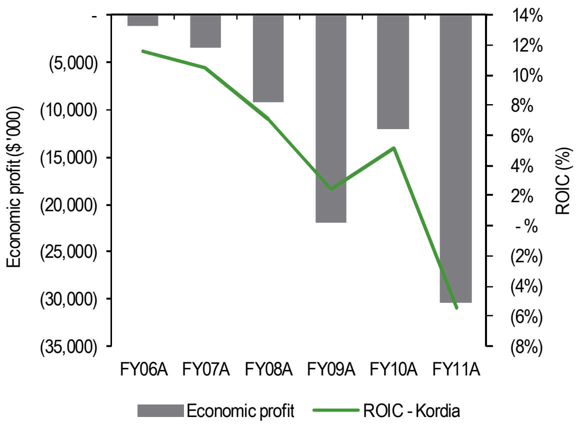
Benchmark comparison

- Benchmark returns are based on a sample of 27 companies, primarily providing rail transportation internationally.
- The calculated ROIC for KiwiRail is in the lower quartile over the 3 year period analysed. As mentioned above we need to view these results in light of the fact that the firm is acknowledged as a mixed objectives entity.
- In some cases, the comparable information includes entities that split assets between a commercial and non-commercial entity i.e. the land held in a non-commercial entity is intended to reflect the reality that no return will be generated on it. In the case of KiwiRail all fixed assets currently form part of the opening invested capital.

Kordia Group Limited

Economic profit and ROIC

Source: Annual reports & EYTAS adjustments



Kordia Group Limited

Prior to 2004 Kordia was a subsidiary of TVNZ and was called Broadcast Communications Limited (BCL). We are unable to extract the BCL financial data from the TVNZ annual reports prior to 2004. Therefore the results for Kordia are only presented from FY04 onwards.

Determination of economic profit

We have made the following adjustments to calculate economic profits for Kordia:

- NOPAT includes:
  - Foreign currency translation differences shown in other comprehensive income. These translation differences relate to subsidiaries operating in Australia which are consolidated into the Group operations.
  - Contributions made to defined benefit plans for the year have been included.
- We have not included movements in cash flow hedges as these appear to predominantly relate to hedges for interest rates (for example, see page 38 of the FY10 Annual Report).
- We have removed from EBIT any gains or losses on the disposal of fixed assets.

Historical economic profit

Economic profit summary

Currency: $ 000	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	140,868	155,313	155,180	205,835	205,366	188,051
NOPAT	16,323	16,300	11,039	5,032	10,648	(10,163)
Return on invested capital	11.6%	10.5%	7.1%	2.4%	5.2%	(5.4%)
WACC	12.3%	12.7%	13.0%	13.1%	11.1%	10.7%
Spread over WACC	(0.7%)	(2.2%)	(5.9%)	(10.6%)	(5.9%)	(16.1%)
Economic profit	(1,048)	(3,447)	(9,178)	(21,904)	(12,091)	(30,319)

Source: Annual reports & EYTAS adjustments

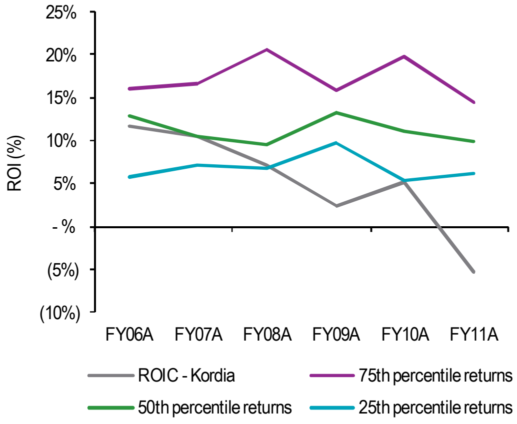
Ref: Kordia - ROIC

- The decline in ROIC is the consequence of both increase in invested capital (financed by borrowings) and a decline in calculated NOPAT.
- Management believe that whilst current earnings from Orcon (the internet service provision business owned by Kordia) may not offset losses, the business is growing and is expected to contribute towards positive earnings in future periods. The loss in FY11 is the consequence of the impairment of the Networks cash generating unit (approximately $29 million). Earnings are negative as a result of the impairment. Since we do not carry forward tax losses as described in our approach, the impairment loss is therefore not fully "tax effected".

Kordia Group Limited

ROIC comparison with sample

Source: CapitalIQ and Factset



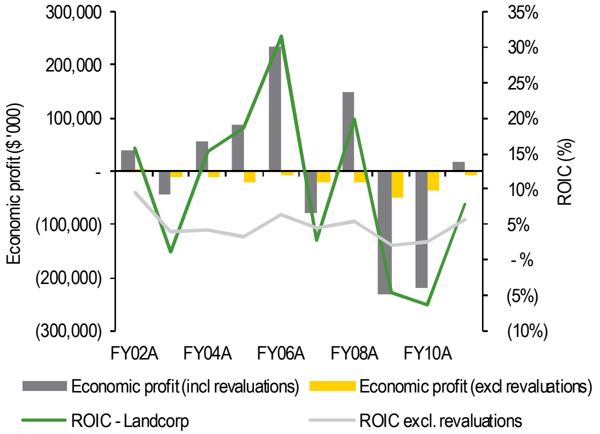
Benchmark comparison

- The benchmark sample of 12 companies for Kordia includes a mix of entities: telecommunications providers like Telecom and Telstra and those that appear to provide similar services in their respective markets.
- Relative to its peers, Kordia's ROIC has fallen from close to the upper quartile in FY06, to the bottom quartile in FY09 and FY10.

Landcorp Farming Limited

Economic profit and ROIC

Source: Annual reports, EY calculations



Landcorp Farming Limited

Determination of economic profit

We have adjusted reported earnings to exclude profits and losses on disposals of fixed assets and fair value adjustments for financial instruments.

The following items have not been excluded from the estimation of economic earnings:

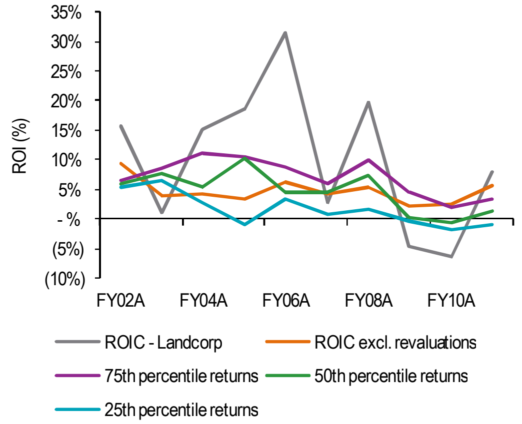
- Revaluations of assets including forestry, livestock, land and land improvements and other items of property, plant and equipment.
- Since Landcorp has a property development operation, profits on the sale of land are considered to be part of their operations and have therefore been included.
- Income/earnings from equity accounted joint ventures are also included in earnings.
- As described in the introduction, tax is not deducted on revaluation gains or losses on land.
- Finally, investment in jointly controlled property development companies has been excluded. The investments are not material to the company.

The chart on the left shows the results of our calculations. An alternative set of calculations showing returns and economic profits after excluding revaluation gains and losses from earnings and invested capital is also shown. We have not been able to adjust depreciation on revalued fixed assets due to a lack of information.

Landcorp Farming Limited

ROIC comparison with sample

Source: Capital IQ and Factset



Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	523,690	631,591	694,374	830,294	1,013,785	1,356,634	1,376,493	1,687,294	1,634,647	1,494,718
NOPAT	81,869	7,443	105,583	155,174	318,858	39,180	272,137	(78,065)	(103,536)	117,138
Return on invested capital	15.6%	1.2%	15.2%	18.7%	31.5%	2.9%	19.8%	(4.6%)	(6.3%)	7.8%
WACC	7.8%	8.0%	7.3%	8.1%	8.2%	8.6%	8.9%	9.1%	7.1%	6.7%
Spread over WACC	7.8%	(6.8%)	7.9%	10.6%	23.2%	(5.7%)	10.9%	(13.7%)	(13.5%)	1.2%
Economic profit (incl revaluations)	40,760	(42,834)	55,113	88,284	235,385	(77,549)	149,378	(230,795)	(219,947)	17,673
Economic profit (excl revaluations)	3,839	(11,462)	(11,299)	(19,257)	(8,194)	(22,029)	(20,623)	(50,501)	(35,576)	(7,112)
ROIC excl. revaluations	9.5%	4.0%	4.1%	3.3%	6.4%	4.4%	5.5%	2.2%	2.6%	5.7%

Source: Annual reports & EYTAS adjustments

Ref: Landcorp - ROIC

- The movement in NOPAT is largely explained by movements in revaluation gains and losses. If revaluations are excluded, the volatility in earnings declines by approximately 75% (as measured by the reduction in the coefficient of variation).
- Invested capital reflects revalued farm holdings, which in many cases do not reflect current operating earnings in the sector.

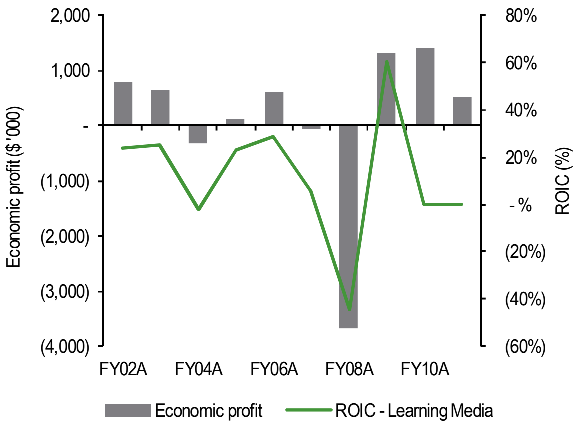
Benchmark comparison

- The benchmark sample of nine companies includes a wide range of companies, primarily engaged in the primary sector in New Zealand (Sanford) and Australia (Australian Agricultural, Tandou). All of which are exposed to volatility in commodity prices.
- Returns for Landcorp have been much more volatile than for its peers, which will be largely attributable to our inclusion of revaluation gains and losses. Landcorp's ROIC is relatively flat over the period when revaluation gains and losses are removed from earnings.

Learning Media Limited

Economic profit and ROIC

Source: Annual reports & EYTAS adjustments



Learning Media Limited

Determination of economic profit

Reported earnings before interest and tax forms the basis for our estimate of Learning Media's economic profit. The only adjustment to invested capital relates to reported capital work in progress between FY04 and FY07.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	4,749	3,517	4,012	727	2,923	4,501	6,965	2,505	(371)	(177)
NOPAT	1,122	874	(73)	166	837	274	(3,102)	1,511	1,418	527
Return on invested capital	23.6%	24.9%	(1.8%)	22.9%	28.6%	6.1%	(44.5%)	60.3%	n / a	n / a
WACC	7.0%	7.0%	6.5%	7.3%	7.5%	7.9%	8.2%	8.1%	5.8%	5.8%
Spread over WACC	16.6%	17.8%	(8.3%)	15.6%	21.2%	(1.8%)	(52.7%)	52.3%	n / a	n / a
Economic profit	790	627	(332)	113	619	(80)	(3,672)	1,309	1,418	527

Source: Annual reports & EYTAS adjustments

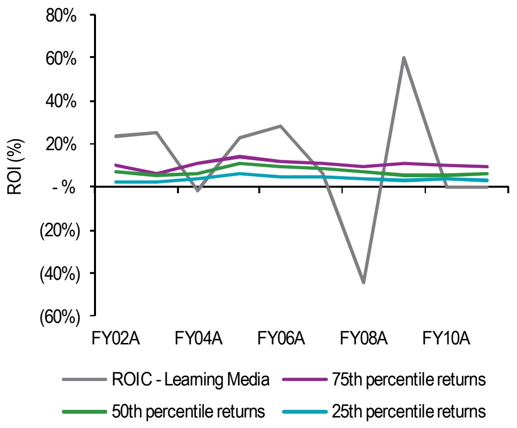
Ref: Learning Media - ROIC

- Invested capital for FY10 and FY11 is less than the cash and bank balances. Therefore, economic profit for these two periods is assumed to equal the calculated NOPAT. The movements in invested capital are the result of movements in capital work in progress (between FY04 and FY07) and cash and bank balances.
- Earnings and ROIC have been volatile over the historical period.
- Total economic profits between FY02 and FY11 are $1.3 million.

Learning Media Limited

ROIC comparison with sample

Source: CapitalIQ and Factset



Benchmark comparison

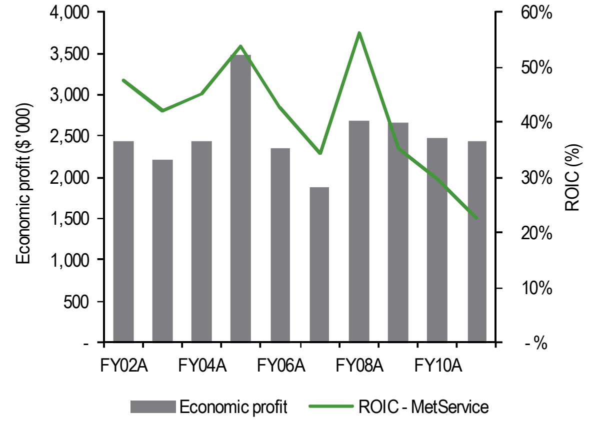
- We have obtained a sample of 17 companies mainly engaged in book publishing in ten countries. The reported returns for the sample appear to be highly correlated (despite potential differences in accounting standards for countries such as the UK, India, South Korea, Argentina and the US).
- In comparison, the reported ROIC for Learning Media is much more volatile.

Ernst & Young

Meteorological Service of New Zealand Limited

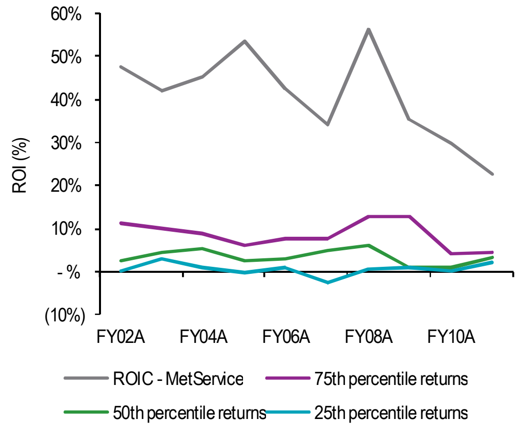
Economic profits and ROIC

Source: Annual report & EYTAS adjustments



ROIC comparison with sample

Source: Capital IQ and Factset



Meteorological Service of New Zealand Limited

Determination of economic profit

- Earnings include the results of operations in the UK (Weather Commerce Limited, a jointly controlled entity) as these appear to be part of the core operations of the company.
- Since we have not been able to source reliable estimates of asset betas or leverage ratios for comparable companies, we have used an estimate based on our assessment of the nature of business, key contracts and real options etc. and a target leverage ratio that reflects the average for BBB rated
- Capital work in progress has been excluded from invested capital.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	6,074	6,458	6,428	7,641	6,854	7,291	5,678	10,148	10,991	15,319
NOPAT	2,899	2,716	2,900	4,098	2,918	2,502	3,193	3,578	3,273	3,450
Return on invested capital	47.7%	42.0%	45.1%	53.6%	42.6%	34.3%	56.2%	35.3%	29.8%	22.5%
WACC	7.8%	8.0%	7.2%	8.0%	8.2%	8.6%	8.9%	9.1%	7.2%	6.6%
Spread over WACC	39.9%	34.1%	37.9%	45.6%	34.4%	25.7%	47.4%	26.2%	22.6%	15.9%
Economic profit	2,423	2,202	2,435	3,484	2,355	1,877	2,689	2,658	2,484	2,432

Source: Annual reports & EYTAS adjustments

Ref: MetService - ROIC

- MetService has achieved positive economic profits for all years in the period under review. The spread between ROIC and WACC ranged from approximately 16% to 50%.

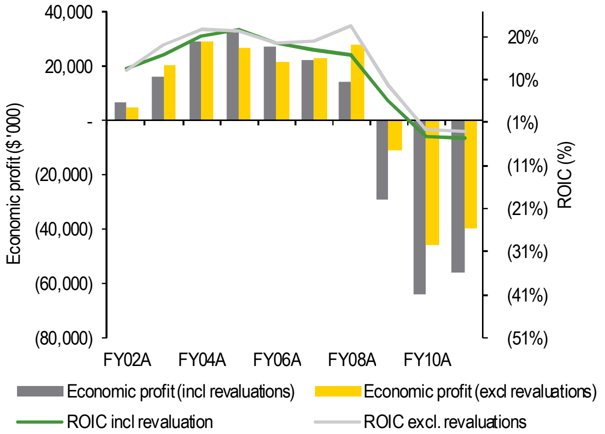
Benchmark comparison

- The benchmark sample is made up of five companies, most of which may be considered to be only broadly comparable. MetService's ROIC is significantly higher than those of the sample companies.

New Zealand Post Limited (excluding Kiwibank Limited)

Economic profit and ROIC

Source: Annual reports, EY calculations



New Zealand Post Limited (excluding Kiwibank Limited)

Determination of economic profit

We have made the following adjustments to calculate the economic profit for NZ Post:

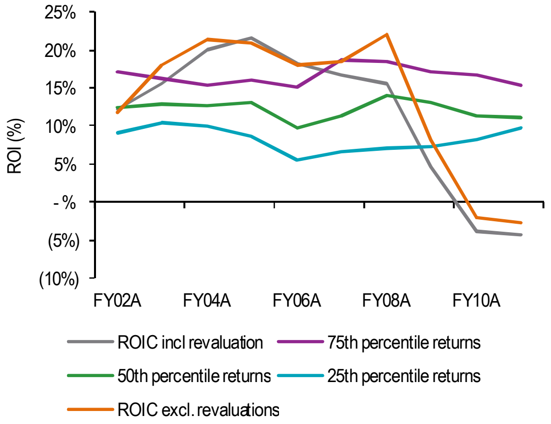
- We have excluded items that are reported under the heading 'Banking Services'. We note that the figures reported under the heading Banking Services differ from those reported in the Kiwibank financial statements.
- Carrying values of assets held for sale and the associated income have also been excluded. Assets held for sale relate to land and buildings that NZ Post is actively marketing to sell.
- No adjustments have been made for investment properties.
- Income from associates and joint ventures is included. The majority of these investments appears to relate to postal activities or other core parts of NZ Post's operations.
- Foreign currency translation gains and losses arising from the translation of the financial statements of foreign subsidiaries are included.
- Financial instrument fair value movements are excluded from income.
- We have deducted Kiwibank's opening invested capital from the invested capital of NZ Post.

The chart also presents alternative economic profit calculations by excluding the impact of revaluations. We have been unable to split the revaluation gains on land and buildings between the two assets. For the purposes of the calculation, we have adjusted depreciation using the total revaluation gains and losses.

New Zealand Post Limited (excluding Kiwibank Limited)

ROIC comparison with sample

Source: Capital IQ and Factset



Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	335,138	302,021	282,975	294,110	355,854	397,522	344,460	434,249	493,350	417,401
NOPAT	41,202	46,848	56,493	63,320	65,194	66,489	53,260	19,964	(19,125)	(18,117)
Return on invested capital	12.3%	15.5%	20.0%	21.5%	18.3%	16.7%	15.5%	4.6%	(3.9%)	(4.3%)
WACC	10.2%	10.3%	9.7%	10.5%	10.7%	11.1%	11.4%	11.3%	9.1%	9.0%
Spread over WACC	2.1%	5.2%	10.3%	11.0%	7.6%	5.6%	4.0%	(6.7%)	(13.0%)	(13.3%)
Economic profit (incl revaluations)	6,883	15,821	29,063	32,403	27,132	22,341	13,916	(29,144)	(64,145)	(55,710)
Economic profit (excl revaluations)	5,006	20,406	28,965	26,455	21,785	22,991	27,702	(10,730)	(45,863)	(39,557)
ROIC excl. revaluations	11.9%	17.9%	21.3%	21.0%	18.1%	18.4%	22.0%	8.2%	(2.0%)	(2.6%)

Source: Annual reports & EYTAS adjustments

Ref: NZ Post - ROIC

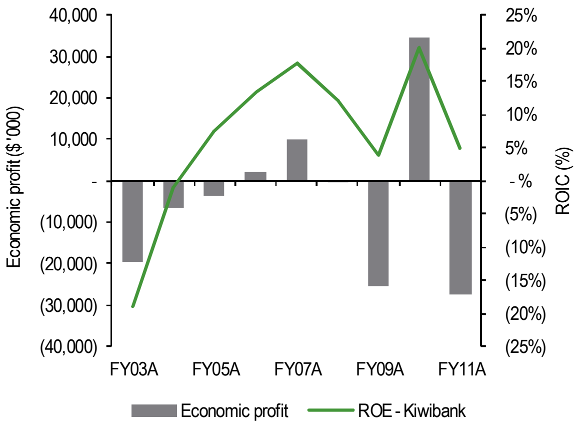
Benchmark comparison

- We have obtained a sample of 13 companies engaged in postal services in nine countries. The reported returns for the sample appear to be correlated (despite potential differences in accounting standards for countries such as the UK, Singapore, and the US).
- The reported ROIC for NZ Post is much more volatile than the sample.

Kiwibank Limited

Economic profits and ROE

Source: Annual reports & EYTAS adjustments



Kiwibank Limited

Kiwibank was established in 2002; and we have analysed its economic profit from FY03 through FY11.

Determination of economic profit

Economic profits for Kiwibank are based on shareholders' equity and returns attributable to the equity holder. We have made the following adjustments to calculate economic profit for Kiwibank:

- Fair value adjustments (gains or losses) on financial instruments and gains or losses on the available for sale and cash flow hedge reserves have been included in NOPAT.
- We have excluded the gain on sale of Kiwibank's shareholding in Kiwi Insurance Limited and The New Zealand Home Loan Company Limited in FY09 ($11.4 million).
- Kiwibank's cost of equity is used to determine the capital charge, which is then deducted from earnings.

Historical economic profit

Economic profit summary

Currency: $ 000	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	66,075	57,202	97,972	116,674	168,292	247,427	316,843	340,049	576,379
NOPAT	(12,479)	(571)	7,289	15,585	29,937	29,727	12,617	68,025	28,947
Return on equity (ROE)	(18.9%)	(1.0%)	7.4%	13.4%	17.8%	12.0%	4.0%	20.0%	5.0%
Cost of equity	11.0%	10.4%	11.3%	11.4%	11.9%	12.2%	12.0%	9.8%	9.8%
Spread over Cost of Equity	(29.9%)	(11.4%)	(3.8%)	1.9%	5.9%	(0.2%)	(8.1%)	10.2%	(4.7%)
Economic profit	(19,756)	(6,545)	(3,741)	2,235	9,988	(382)	(25,550)	34,584	(27,250)

Source: Annual reports & EYTAS adjustments

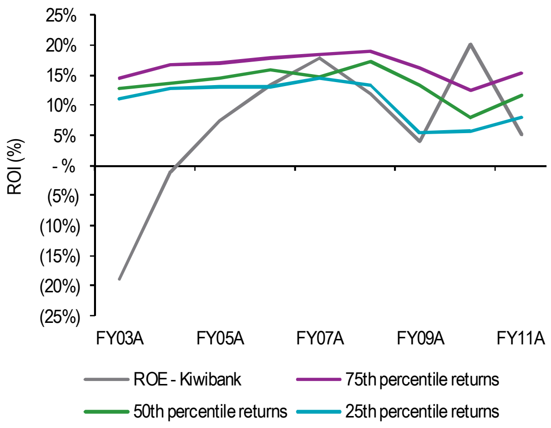
Ref: Kiwibank - ROIC

- Fair value losses on available for sale and cash flow hedge instruments of $54.4 million contributed to the loss in FY09 and a significant increase in impairment losses on loans and advances contributed to the economic loss in FY11.

Kiwibank Limited

ROE comparison with sample

Source: Capital IQ and Factset



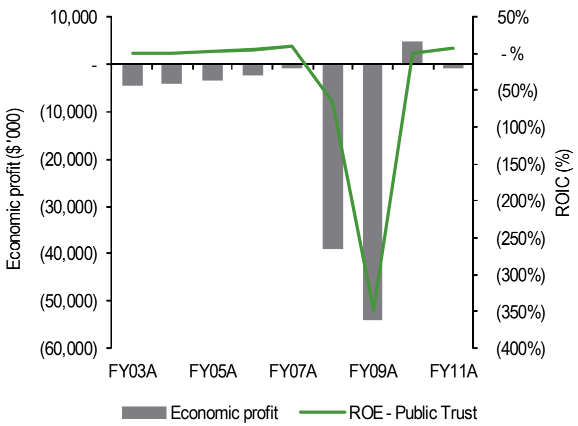
Benchmark comparison

- The benchmark sample includes the major listed Australian banks (ANZ, Westpac etc) and global banking companies (for example, Deutsche Postbank and HSBC). Management believe that a better comparison would be against other New Zealand banks such as SBS and TSB. We have not been able to obtain information for these banks using our data sources (Capital IQ and Factset) and have therefore not included these in the benchmark sample.
- The 25^{th} and 75^{th} percentile returns of the comparable companies remained between 5% and 19% over the historical period. Kiwibank's returns, in contrast, were more volatile than the sample.

Public Trust

Economic profit and ROE

Source: Annual reports & EYTAS adjustments



Public Trust

Determination of economic profit

Public Trust was established in 2002. Only four months (March to June) of results are available for Public Trust for that year, so we have only presented results from FY03 onward.

As the majority of the assets of Public Trust are financial assets, we have treated it as a financial institution. Accordingly economic profits are based on shareholder's equity and returns attributable to equity holder. We have made the following adjustments to determine economic profit for Public Trust:

- Fair value movements related to financial instruments are included in the calculation of NOPAT.
- Gains and losses on the disposal of fixed assets have been excluded from income.
- We have used our estimate of Public Trust's cost of equity as the cost of capital.

Historical economic profit

Economic profit summary

Currency: $ 000	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	38,009	38,891	39,016	38,311	41,442	49,245	14,986	(17,166)	20,092
NOPAT	38,009	38,891	39,016	38,311	41,442	49,245	14,986	(17,166)	20,092
Return on equity	0.1%	0.4%	3.2%	5.7%	10.7%	(66.1%)	(348.8%)	- %	6.9%
Cost of equity	11.7%	11.1%	12.0%	12.1%	12.6%	12.9%	12.7%	10.5%	10.4%
Spread over Cost of equity	(11.6%)	(10.8%)	(8.8%)	(6.4%)	(1.8%)	(78.9%)	(361.5%)	(10.5%)	(3.6%)
Economic profit	(4,402)	(4,184)	(3,429)	(2,467)	(756)	(38,870)	(54,174)	4,983	(714)

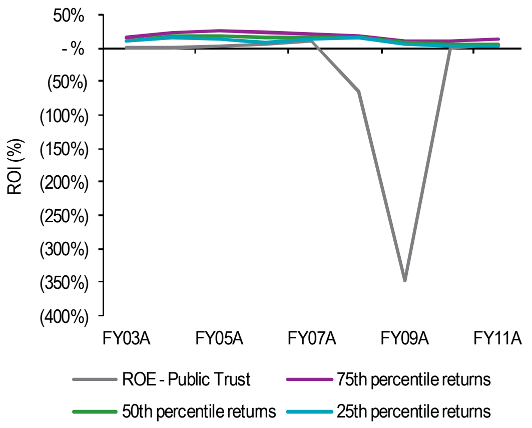
Source: Annual reports & EYTAS adjustments
Ref: Public Trust - ROIC

- Public Trust generated a negative economic profit in every year before FY10. Since the firm had negative equity in FY10, we have assumed economic profit is equal to NOPAT in that year.

Public Trust

ROE comparison with sample

Source: Capital IQ and Factset



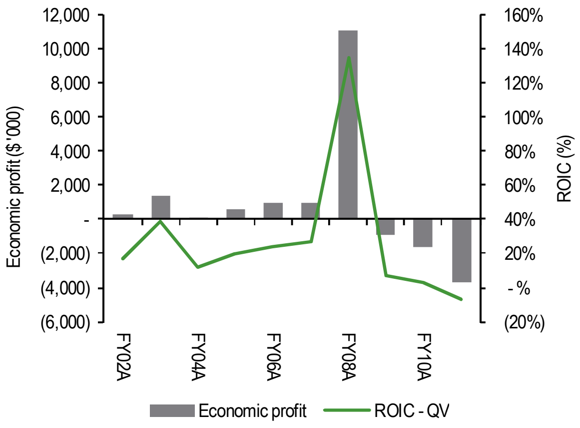
Benchmark comparison

- The benchmark sample is made up of only five companies, all of which provide professional services and none which provide custodial services. As a result, the comparison can only be considered as indicative.

Quotable Value Limited

Economic profit and ROIC

Source: Annual reports & EYTAS adjustments



Quotable Value Limited

Determination of economic profit

We have made the following adjustments to calculate economic profit for QV:

- Gains and losses on the sale of fixed assets included in EBIT in the financial statements (FY02 through FY06) have been reversed.
- Gains and losses arising from foreign currency translation are included as these reflect the impact of foreign operations.
- Earnings from PropertyIQ Limited and QVRP Information Services Limited are included.
- The FY08 results include $17.8 million surplus as a result of a new joint venture with RP Data called PropertyIQ Limited.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	5,167	5,382	6,798	8,177	8,399	6,920	9,170	15,465	19,005	20,030
NOPAT	887	2,092	823	1,656	2,045	1,899	12,311	1,126	587	(1,455)
Return on invested capital	17.2%	38.9%	12.1%	20.2%	24.3%	27.4%	134.3%	7.3%	3.1%	(7.3%)
WACC	12.3%	12.4%	11.8%	12.6%	12.8%	13.2%	13.5%	13.4%	11.3%	11.1%
Spread over WACC	4.8%	26.5%	0.3%	7.7%	11.6%	14.3%	120.8%	(6.1%)	(8.2%)	(18.4%)
Economic profit	250	1,427	23	627	973	989	11,075	(948)	(1,554)	(3,678)

Source: Annual reports & EYTAS adjustments

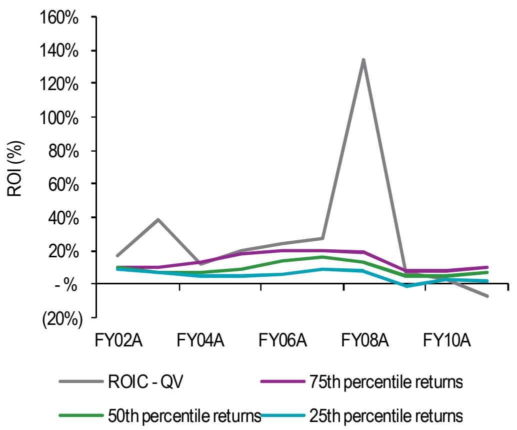
Ref: Quotable Value - ROIC

- Excluding FY08, earnings have decline from FY06 onwards resulting in declining economic profits. Invested capital has also increased from FY08 onwards (retained profits for that year have gone up).
- FY11 results are impacted by an impairment charge related to the Darroch business.

Quotable Value Limited

ROIC comparison with sample

Source: Capital IQ and Factset



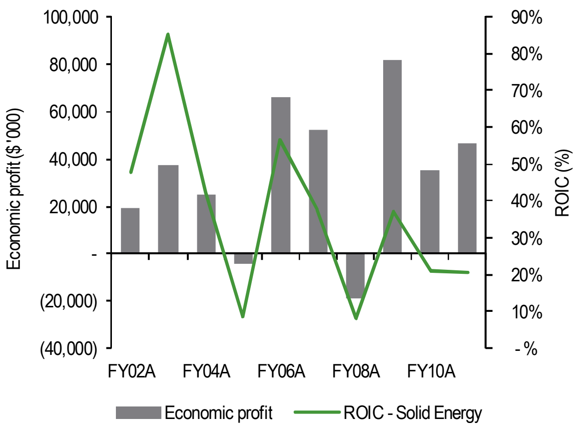
Benchmark comparison

- The benchmark sample of 19 companies includes several broadly comparable companies including CB Richard Ellis, Jones Lang LaSalle, DTZ Holdings and Savills.
- Between FY03 and FY08 QV's ROIC was higher than (or very close to) the 75th percentile ROIC of the comparable companies.
- Since FY08, QV's ROIC has followed the general decline in the ROIC's of the benchmark companies, a decline which appears to be reflective of the downturn in global property investment during and since the global financial crisis. However, in FY10, QV's ROIC fell below the 25th percentile RIOC of the comparable companies. ROIC declined from 7.3% in FY09 to a negative 7.3% in FY11.

Solid Energy New Zealand Limited

Economic profits and ROIC

Source: Annual reports & EYTAS adjustments



Solid Energy New Zealand Limited

Determination of economic profit

We have made the following adjustments to calculate the economic profit for Solid Energy:

- Gains and losses on the sale of fixed assets have been excluded.
- Foreign exchange gains and losses are included.
- We have excluded the carrying value of investments and the related income from NOPAT. Solid Energy's investments include Fonterra shares and investment properties. We have, however, not adjusted for gains or losses from jointly controlled entities, as these are considered to be part of the core operations for Solid Energy.
- Fair value gains and losses on financial instruments are included as these include foreign exchange hedges.
- We have adjusted earnings (grossed up by the company tax rate) attributable to minorities and have deducted the associated portion of equity attributable to minorities when calculating opening invested capital.
- Capital work in progress has been excluded from the calculation of opening invested capital.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	56,048	51,648	85,136	89,678	153,960	220,244	306,928	351,646	385,831	538,323
NOPAT	26,819	44,007	35,864	7,754	87,058	82,682	24,759	131,379	80,497	109,592
Return on invested capital	47.8%	85.2%	42.1%	8.6%	56.5%	37.5%	8.1%	37.4%	20.9%	20.4%
WACC	13.0%	13.0%	12.5%	13.3%	13.5%	13.9%	14.2%	14.1%	11.8%	11.8%
Spread over WACC	34.9%	72.2%	29.7%	(4.6%)	43.1%	23.7%	(6.1%)	23.3%	9.0%	8.6%
Economic profit	19,535	37,281	25,261	(4,144)	66,348	52,147	(18,759)	81,952	34,800	46,286

Source: Annual reports, EYTAS adjustments

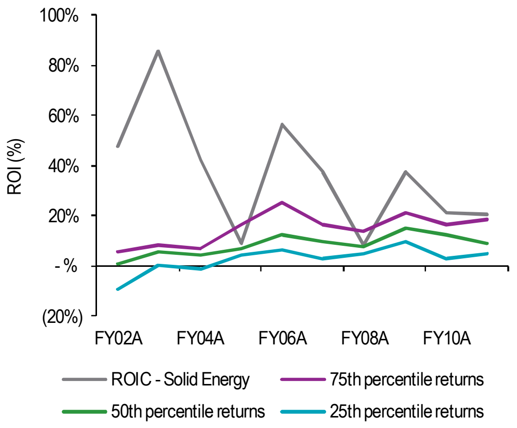
Ref: Solid Energy - ROIC

- NOPAT and economic profits appear to be cyclical.
- In FY05 the firm posted a $46 million impairment relating to its Spring Creek and Terrace mines. Included in this impairment was a 'Provision for Onerous Contract'. This contract related to the funding of the construction of a railway bridge that was being constructed to transport the Spring Creek coal. Due to the uncertainly over the future (the economic benefit) of the Spring Creek mine, this associated contract was written down in value.

Solid Energy New Zealand Limited

ROIC comparison with sample

Source: Capital IQ and Factset



- In FY08 the firm experienced a decrease in revenue combined with a marked increase in the cost of goods sold.

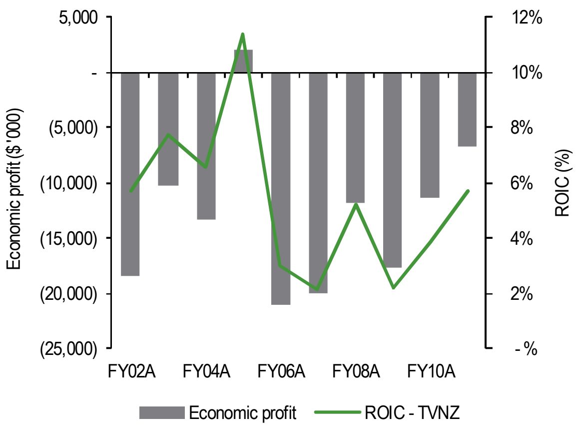
Benchmark comparison

- The benchmark sample of 19 companies includes several coal miners, including eight comparable companies in Australia.
- Whilst industry returns appear to be cyclical, the returns for Solid Energy are more volatile than its peers, while still following the same trend.
- Over the time period under review, the ROIC for Solid Energy lay above the median ROIC for the sample.

Television New Zealand Limited

Economic profit and ROIC

Source: Annual reports & EYTAS adjustments



Television New Zealand Limited

TVNZ is a Crown Owned Entity. Prior to 2004 Kordia was a subsidiary of TVNZ, at that time named Broadcast Communications Limited (BCL). We are unable to extract data for BCL from the TVNZ annual reports for this period. Therefore the results prior to 2004 include the operations of both BCL and the television business.

From 2003 onwards TVNZ was required to conform to a public broadcasting charter. Thus, whilst the company was required to "maintain commercial performance" it was also required to implement a charter that required it to act in the broader public interest. Management believe that the need to give effect to multiple objectives (commercial and non-commercial) simultaneously means that financial metrics over this period do not provide a full picture of its performance.

Determination of economic profit

We have made the following adjustments to calculate economic profit for TVNZ:

- Income related to non-operational investments has been excluded.
- The programme amortisation revision expense is included. This relates to additional programme amortisation as a result of changes to the length of straight line amortisation periods of programme costs.
- Foreign currency gains and losses and impairment charges are included.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	397,866	392,209	419,628	248,871	271,244	222,218	190,256	191,653	207,468	196,738
NOPAT	22,606	30,365	27,585	28,288	8,103	4,763	9,961	4,146	8,055	11,176
Return on invested capital	5.7%	7.7%	6.6%	11.4%	3.0%	2.1%	5.2%	2.2%	3.9%	5.7%
WACC	10.3%	10.4%	9.7%	10.6%	10.7%	11.1%	11.4%	11.4%	9.3%	9.1%
Spread over WACC	(4.6%)	(2.6%)	(3.2%)	0.8%	(7.7%)	(9.0%)	(6.2%)	(9.3%)	(5.4%)	(3.4%)
Economic profit	(18,399)	(10,300)	(13,317)	2,031	(21,007)	(19,962)	(11,806)	(17,752)	(11,304)	(6,701)

Source: Annual reports & EYTAS adjustments

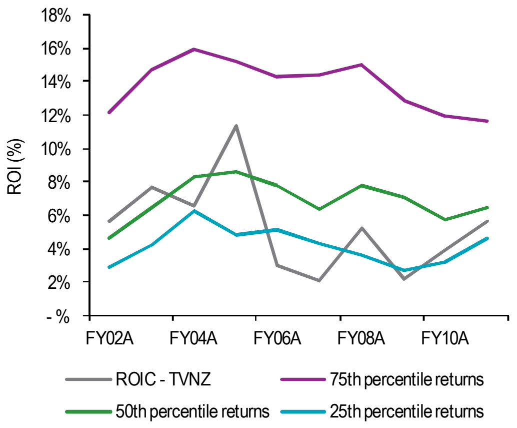
Ref: TVNZ - ROIC

- TVNZ recorded positive NOPAT and ROIC in all years between FY02 and FY09, but a negative economic profit in all years.
- Programme amortisation in FY05 and FY10 ($50 million and $22 million respectively) have been spread over five years following feedback from TVNZ.

Television New Zealand Limited

ROIC comparison with sample

Source: Capital IQ and Factset



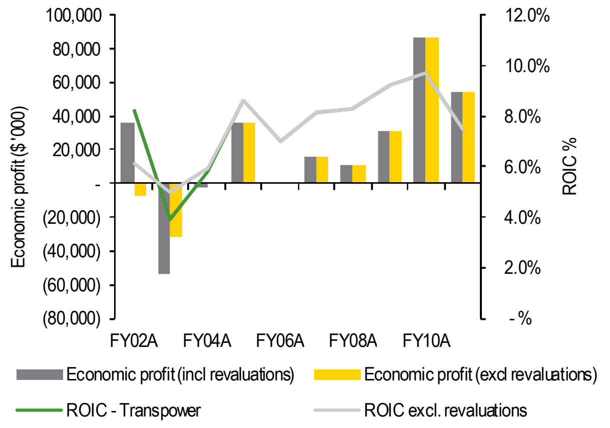
Benchmark comparison

- We have compared TVNZ's ROIC with 27 global television and digital media firms such as CBS Corporation, Prime Media Group Limited and Nippon Television Network Corporation. As mentioned above, returns for TVNZ may not be directly comparable with firms that focus on commercial returns as their primary objective. Comparable data on other public broadcasters is not available from the data sources used for this analysis.
- TVNZ's ROIC fluctuated significantly over the period under review, moving from below the 25th percentile benchmark return to just above the 50th percentile benchmark return.
- Returns at the upper quartile are materially greater than those at the lowest quartile.

Transpower Limited

Economic profit and ROIC

Source: Annual reports, EY calculations



Transpower Limited

Determination of economic profit

We have made the following adjustments to calculate the economic profit for Transpower:

- Revaluation gains and losses in financial years FY02 through FY04 have been included.
- Earnings attributable to minority interests have been removed from EBIT and non-controlling shareholdings have been deducted from invested capital.
- We have used an asset beta of 0.3 and debt ratio of 44% to calculate Transpower's WACC; this estimate is provided by the Commerce Commission as at 8 July 2011.

The chart to the left also shows the alternative economic profit calculations excluding the impact of revaluations. We have not been able to adjust depreciation as described in the introduction due to lack of sufficient information.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	2,058,849	2,045,995	2,009,216	1,952,649	1,965,400	1,962,324	1,826,408	1,974,673	2,131,610	2,427,096
NOPAT	168,907	80,011	115,958	167,540	137,394	159,925	150,821	181,816	207,262	181,510
ROIC - Transpower	8.2%	3.9%	5.8%	8.6%	7.0%	8.1%	8.3%	9.2%	9.7%	7.5%
WACC	6.5%	6.6%	5.9%	6.7%	6.9%	7.3%	7.6%	7.6%	5.7%	5.3%
Spread over WACC	1.7%	(2.6%)	(0.1%)	1.8%	0.1%	0.8%	0.6%	1.6%	4.0%	2.2%
Economic profit (incl revaluations)	35,610	(54,208)	(2,443)	35,778	1,131	16,202	11,118	31,372	86,080	53,785
Economic profit (excl revaluations)	(7,463)	(31,959)	1,227	35,778	1,131	16,202	11,118	31,372	86,080	53,785
ROIC excl. revaluations	6.1%	5.0%	6.0%	8.6%	7.0%	8.1%	8.3%	9.2%	9.7%	7.5%

Source: Annual reports & EYTAS adjustments

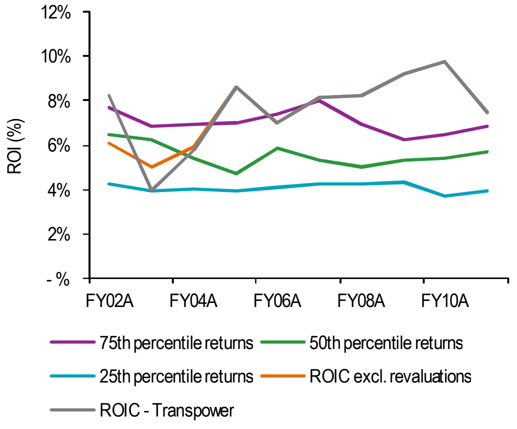
Ref: Transpower - ROIC

- A revaluation loss on PP&E in FY03 of $33.2 million contributed to Transpower's loss of $55.4 million in that financial year.
- Transpower operates with the intention of earning a ROIC on its regulated business that is equal to its cost of capital. Transpower's average economic profit of $21 million per annum between FY02 and FY11 appears materially consistent with this objective.

Transpower Limited

ROIC comparison with sample

Source: Capital IQ and Factset



- Transpower's estimates differ from the results presented above (for example, Transpower estimates that its economic value added is a negative $38 million in FY11 (page 8 in Statement of Corporate Intent 2011). Whilst we have not sought to reconcile the differences, potential sources of differences include the following:
  - The use of average invested capital by Transpower.
  - Differences in the assumptions used to calculate the weighted average cost of capital.
  - Calculation of economic profits for the firm as a whole rather than for the regulated components of Transpower's business.

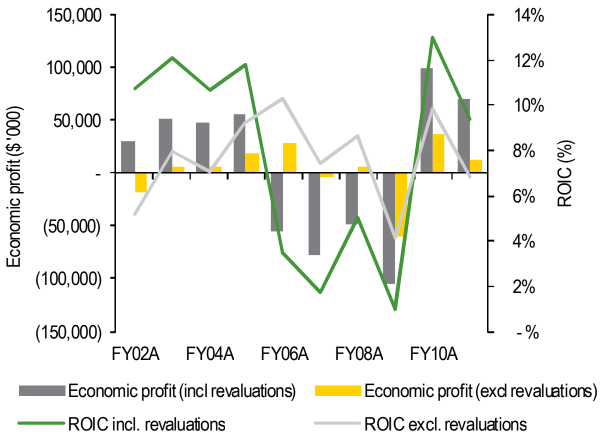
Benchmark comparison

We have compared Transpower's ROIC with 21 comparable transmission companies internationally. While Transpower's performance was materially aligned to the upper quartile of comparable companies through to FY08, its performance in FY09 and FY10 has significantly surpassed its peers.

Genesis Energy Limited

Economic profit and ROIC

Source: Annual reports, EY calculations



Genesis Energy Limited

Determination of economic profit

We have made the following adjustments for the calculation of economic profits:

- Impairments to assets (tangible and intangible) are included in the calculation of economic profits.
- Revaluation gains have been smoothed over a four year period.
- Fair value movements for financial instruments are included in the calculation of economic profits because these partially relate to operational hedging (electricity prices etc.) and we are unable to separate fair value movements related to borrowings (interest rate swaps etc.).

The chart also shows an alternative calculation by excluding revaluation gains and losses from earnings, making adjustments to depreciation and excluding revaluation reserves from invested capital. Due to the lack of information, all revaluation gains and losses are assumed to relate to depreciable assets.

Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	866,356	1,091,115	1,183,655	1,249,781	1,359,597	1,244,973	1,531,630	1,414,348	1,578,115	2,070,589
NOPAT	93,131	131,913	126,076	147,804	46,964	21,087	77,697	13,551	205,000	195,092
Return on invested capital	10.7%	12.1%	10.7%	11.8%	3.5%	1.7%	5.1%	1.0%	13.0%	9.4%
WACC	7.2%	7.3%	6.5%	7.4%	7.5%	7.9%	8.2%	8.4%	6.7%	6.0%
Spread over WACC	3.5%	4.8%	4.1%	4.5%	(4.1%)	(6.2%)	(3.1%)	(7.5%)	6.3%	3.4%
Economic profit (incl revaluations)	30,561	52,054	48,795	55,907	(55,485)	(77,268)	(47,898)	(105,630)	99,394	70,017
Economic profit (excl revaluations)	(17,451)	6,688	5,637	19,135	28,035	(4,183)	5,971	(59,212)	36,985	12,254
ROIC excl. revaluations	5.2%	8.0%	7.1%	9.2%	10.3%	7.5%	8.6%	4.1%	9.8%	6.8%

Source: Annual reports & EYTAS adjustments

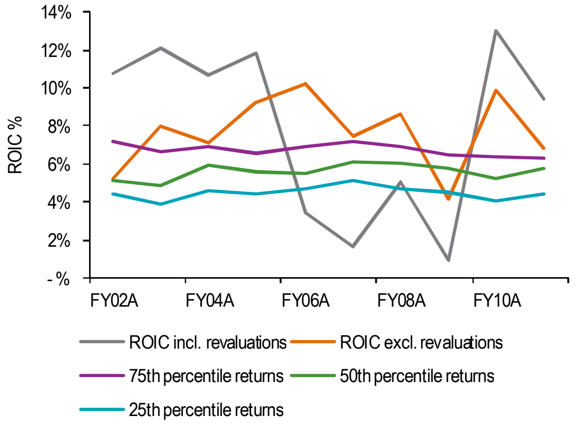
Ref: Genesis - ROIC

- The reduction in NOPAT in FY06 primarily reflects a revaluation loss of approximately $70 million attributed by us to the year, and this relates to a revaluation loss of $261 million recognised by Genesis in FY09.
- In addition to the revaluation loss, the firm also recognised impairment losses of approximately $92 million between FY08 and FY11.

Genesis Energy Limited

ROIC comparison with sample

Source: Capital IQ and Factset



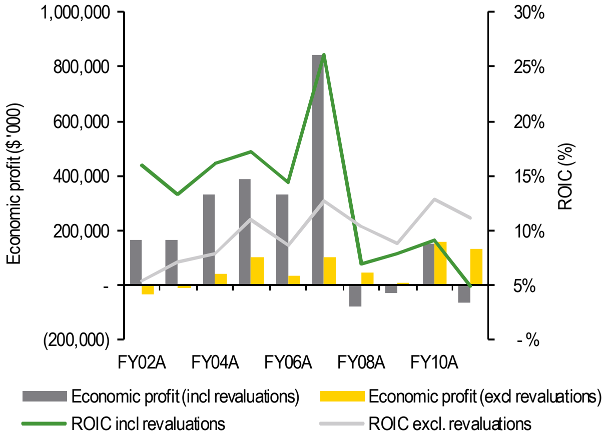
Benchmark comparison

- The benchmark sample is based on a set of 27 companies mainly engaged in the generation and distribution of energy operating mainly in Australia, New Zealand and the US (19 of the 27). The returns for the sample appear to lie within a fairly tight range (inter-quartile range between 2% and 3% over the 10 year period).
- Returns (including revaluations) for Genesis were in the upper quartile between FY03 and FY05 but subsequently and until FY10, returns fell in the bottom quartile.

Meridian Energy Limited

Economic profits and ROIC

Source: Annual reports & EYTAS adjustments



Meridian Energy Limited

Determination of economic profit

The following adjustments have been made to reported earnings for the purposes of the calculation.

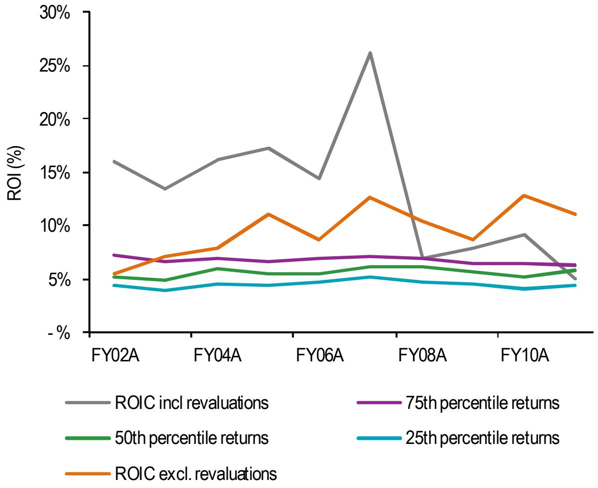
- Impact of cash flow hedges and fair value movements for financial instruments have been included. This is because the firm uses financial instruments in relation to operational matters including hedging electricity prices etc.
- Foreign exchange gains and losses from the translation of foreign operations have been included.
- Revaluation gains and losses have been smoothed over the period between revaluations.
- Earnings attributable to minorities (grossed up for tax) have been removed.
- Income related to joint venture operations is included. In 2011, for example, this includes Efficient Home Energy, Elemental Energy Limited and Silverstream LFG Utilisation, all of which appear to be engaged in similar businesses. To maintain consistency, investments in joint ventures are included in invested capital.
- Impairments on assets held for sale are excluded from the calculation of economic profits.

The chart also shows an alternative calculation by excluding revaluation gains and losses from earnings, making adjustments to depreciation and excluding revaluation reserves from invested capital. Due to a lack of information, all revaluation gains and losses are assumed to relate to depreciable assets.

Meridian Energy Limited

ROIC comparison with sample

Source: Capital IQ and Factset



Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	1,904,507	2,669,443	3,496,968	3,925,579	4,827,299	4,622,628	6,139,970	5,282,295	6,082,862	6,333,022
NOPAT	304,307	357,412	562,044	678,337	694,128	1,207,949	424,585	418,151	557,713	315,790
Return on invested capital	16.0%	13.4%	16.1%	17.3%	14.4%	26.1%	6.9%	7.9%	9.2%	5.0%
WACC	7.2%	7.3%	6.5%	7.4%	7.5%	7.9%	8.2%	8.4%	6.7%	6.0%
Spread over WACC	8.8%	6.1%	9.5%	9.9%	6.8%	18.2%	(1.3%)	(0.5%)	2.5%	(1.1%)
Economic profit (incl revaluations)	166,758	162,035	333,726	389,689	330,378	842,752	(78,899)	(26,965)	150,652	(66,760)
Economic profit (excl revaluations)	(34,242)	(4,813)	39,693	99,846	35,436	102,597	48,148	6,721	158,027	133,662
ROIC excl. revaluations	5.4%	7.1%	7.9%	11.0%	8.7%	12.7%	10.4%	8.7%	12.9%	11.1%

Source: Annual reports & EYTAS adjustments

Ref: Meridian Energy - ROIC

- The significant increase in NOPAT in FY07 reflects the recognition of revaluation gains of $1.46 billion (pre-tax) recorded in that year, immediately following the recognition of revaluation gains of $1.8 billion in FY06. (We have spread this earlier amount over the period FY04 – FY06.)

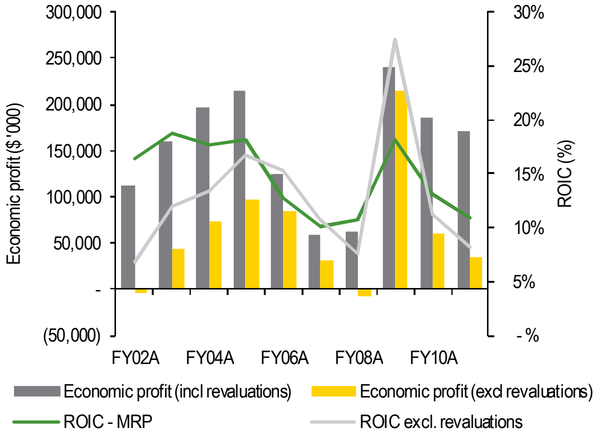
Benchmark comparison

- The benchmark sample is based on a set of 27 companies mainly engaged in the generation and distribution of energy operating mainly in Australia, New Zealand and the US (19 of the 27). The returns for the sample appear to lie within a fairly tight range (inter-quartile range between 2% and 3% over the 10 year period). Meridian's returns are much more volatile and lie above the upper quartile, and appear to be driven mainly by the inclusion of revaluation gains in the calculation of economic earnings.
- Meridian's returns primarily lie above the upper quartile over the entire period.

Mighty River Power Limited

Economic profits and ROIC

Source: Annual reports & EYTAS adjustments



Mighty River Power Limited

Determination of economic profit

We have made the following adjustments in calculating economic profit for MRP:

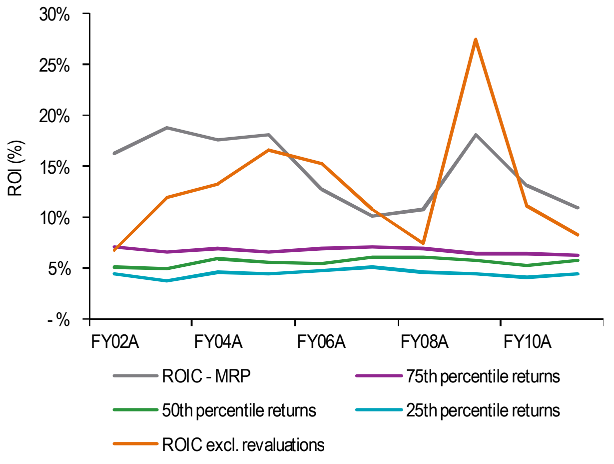
- Revaluation gains and losses have been included and the results smoothed over the period between revaluations.
- Income from earnings from associate companies and jointly controlled entity investments is also included and the investments included in invested capital.
- Earnings attributable to minority interests and minority interest equity holdings have been excluded.
- Gains and losses on the disposal of fixed assets are excluded.
- Foreign currency translation gains or losses arising from the translation of results and assets of foreign operations have been included.
- Fair value gains and losses on financial instruments are included. This is because, as in the case of other generators, MRP also uses financial instruments to hedge its exposures to electricity prices and we have not been in a position to separate fair value movements related to borrowings (interest rate swaps and the like) for exclusion.
- Income from available for sale investments is not included as this relates to shareholdings in listed New Zealand companies, which are not part of MRP's core operations (the investments have also been excluded from invested capital.)

The chart also shows an alternative calculation by excluding revaluation gains and losses from earnings, making adjustments to depreciation and excluding revaluation reserves from invested capital. Due to a lack of information, all revaluation gains and losses are assumed to relate to depreciable assets.

Mighty River Power Limited

ROIC comparison with sample

Source: Capital IQ and Factset



Historical economic profit

Economic profit summary

Currency: $ 000	FY02A	FY03A	FY04A	FY05A	FY06A	FY07A	FY08A	FY09A	FY10A	FY11A
Opening invested capital	1,229,010	1,404,603	1,756,338	2,008,417	2,400,809	2,618,057	2,431,296	2,484,838	2,883,779	3,481,100
NOPAT	201,173	263,923	310,625	362,778	306,012	264,575	261,428	449,328	377,690	380,354
Return on invested capital	16.4%	18.8%	17.7%	18.1%	12.7%	10.1%	10.8%	18.1%	13.1%	10.9%
WACC	7.2%	7.4%	6.5%	7.4%	7.5%	7.9%	8.2%	8.4%	6.7%	6.0%
Spread over WACC	9.1%	11.4%	11.2%	10.7%	5.2%	2.2%	2.6%	9.7%	6.4%	4.9%
Economic profit (incl revaluations)	112,268	160,137	195,953	215,099	125,104	57,743	62,059	239,941	184,710	170,076
Economic profit (excl revaluations)	(4,501)	43,702	72,523	96,567	84,854	30,556	(7,493)	213,913	60,227	35,516
ROIC excl. revaluations	6.8%	12.0%	13.4%	16.7%	15.2%	10.8%	7.5%	27.5%	11.2%	8.2%

Source: Annual reports & EYTAS adjustments

Ref: Mighty River Power - ROIC

- The ROIC spread over the cost of capital, and therefore economic profit, has declined between FY06 and FY08, as a consequence of both declines in operating earnings and an increase in invested capital.
- An increase in operating earnings in FY09 resulted in an increase in ROIC for that year.

Benchmark comparison

- The benchmark sample is based on a set of 27 companies mainly engaged in the generation and distribution of energy, and operating primarily in Australia, New Zealand and the US (19 of the 27). The returns for the sample appear to lie within a fairly tight range (inter-quartile range between 2% and 3% over the 10 year period).
- MRP's returns lie above the upper quartile.

Gentailers

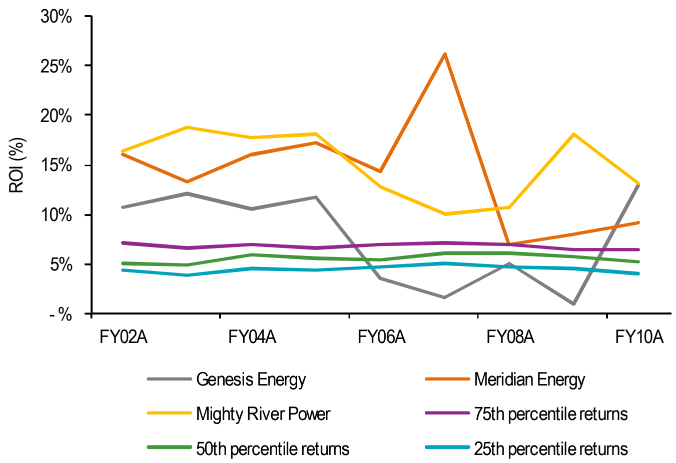
Gentailers

- The chart below shows the calculated ROICs for all three gentailers against the quartile returns for the sample.

Comparison of returns

ROIC comparison (including revaluations)

Source: Annual reports, EY calculations, Capital IQ and Factset



- In general, reported revaluation gains (smoothed between revaluation periods) are approximately equal to operating earnings for the three gentailers. As a consequence, the calculated ROICs for the three gentailers lie above the 75th percentile of the sample. In the last three years, we have adjusted NOPAT of the gentailers for movements in the fair values of financial instruments. These depress returns.
- We have relied on the Factset and Capital IQ databases for the ROICs of the companies used as the benchmark and have not analysed whether the reported ROICs for the benchmark companies have been similarly adjusted. The trend over time for the benchmark appears to suggest that returns are not adjusted either for revaluations or for movements in the fair values of financial instruments, resulting in lower reported returns coupled with lower volatility. As described in the introductory section, the comparison may also be affected by other factors, including differences in regulatory settings, differences in competitive landscape and differences in the age profiles of assets etc.

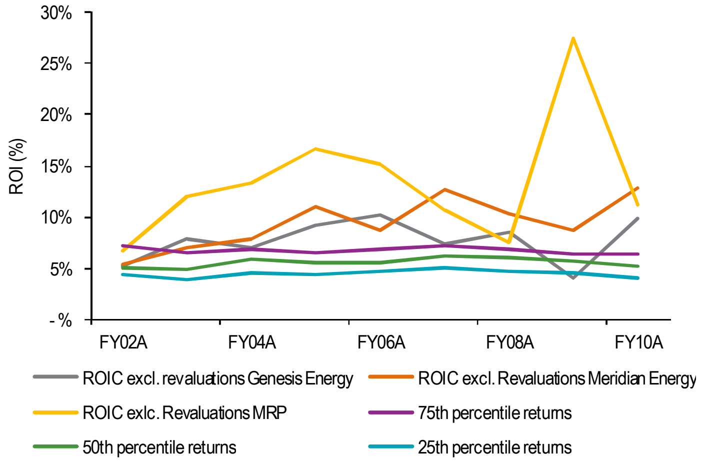
Gentailers

Comparison of returns excluding the impact of revaluations

- The chart below shows the ROICs for the gentailers excluding the impact of revaluations.
- The returns for the three companies appear to lie above the median in earlier periods. As in the case of the chart above, returns in the last three years may be impacted by differences in the treatment of fair value movements for financial instruments for the sample.

ROIC comparison (excluding revaluations)

Source: Annual reports, EY calculations, Capital IQ and Factset



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