

A Value-based Perspective on Executive Incentive Plan Design

Denis Kilroy, Marvin Schneider & Steven Bishop | November 2013

Introduction

Shareholder value is created when management either delivers performance in excess of market expectations, and/or when it convinces the capital markets that it has put a strategy in place that will enable it to do so. How boards and executives apply this quite simple tenet of finance matters a great deal when setting goals, establishing business performance measurement systems and particularly when designing executive reward plans.

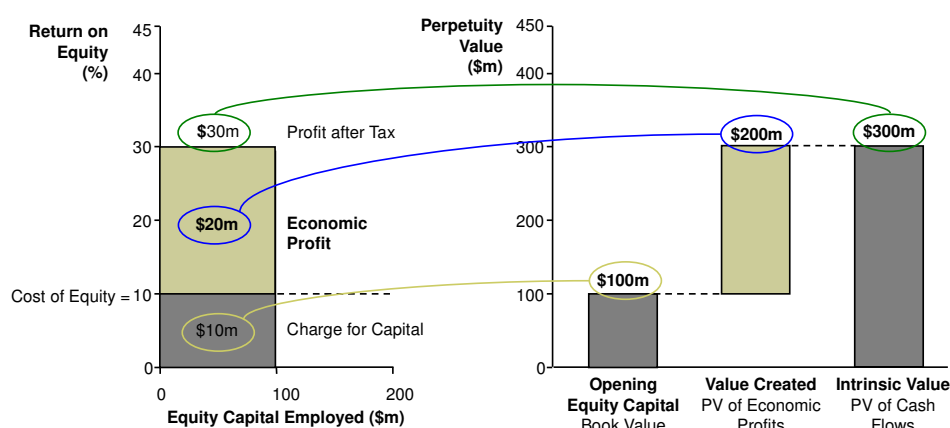
Measuring Performance from an Internal Management Perspective

From the internal perspective of the board and its executive team, there are only two stand-alone metrics that properly establish whether performance has exceeded expectations over a particular measurement period. The first is cash flow, or profit less change in capital. The second is economic profit (EP), or profit less charge for capital. Both measures include P&L and Balance Sheet components.

EP, which is illustrated in Figure 1 along with its link to value if sustained in perpetuity, is generally the easier to use and the more meaningful of the two internal metrics.

There are many reasons for this, including the ability to easily disaggregate EP to a product or segment level (or store in the case of a retailer). But the most important advantage of EP is the fact that it has a natural benchmark. If a business generates a cash flow of \$10m, it can be difficult to know if that constitutes good, mediocre or poor performance. The same is true with both EBIT and earnings. But if it generates EP of \$10m, we know that represents good performance because there is a benchmark of zero at which the value of shareholders' funds (net assets) is preserved.

Figure 1. Definition of Economic Profit and its Link to Value if Sustained in Perpetuity



Another important attribute of EP is the simple relationship that exists between value uplift and change in EP. This can be demonstrated with the same zero-growth perpetuity used in Figure 1.

If the business illustrated in Figure 1 were able to achieve a five-percentage point increase in return, then profit after tax (PAT) would increase from \$30m to \$35m and EP would increase from \$20m to \$25m. Since there is no growth or reinvestment (i.e. the \$100m capital base remains the same), cash flow is the same as PAT. So if the \$5m uplift in PAT and cash flow could be sustained in perpetuity, the value of the business would increase by \$50m to \$350m. This is demonstrated in Figure 2.

As is also evident from Figure 2, the increase in value is not only equal to the present value (PV) of the increase in expected cash flow. It is also equal to the PV of the expected increase in EP.

Figure 2. The Relationship Between Value Uplift and Change in EP

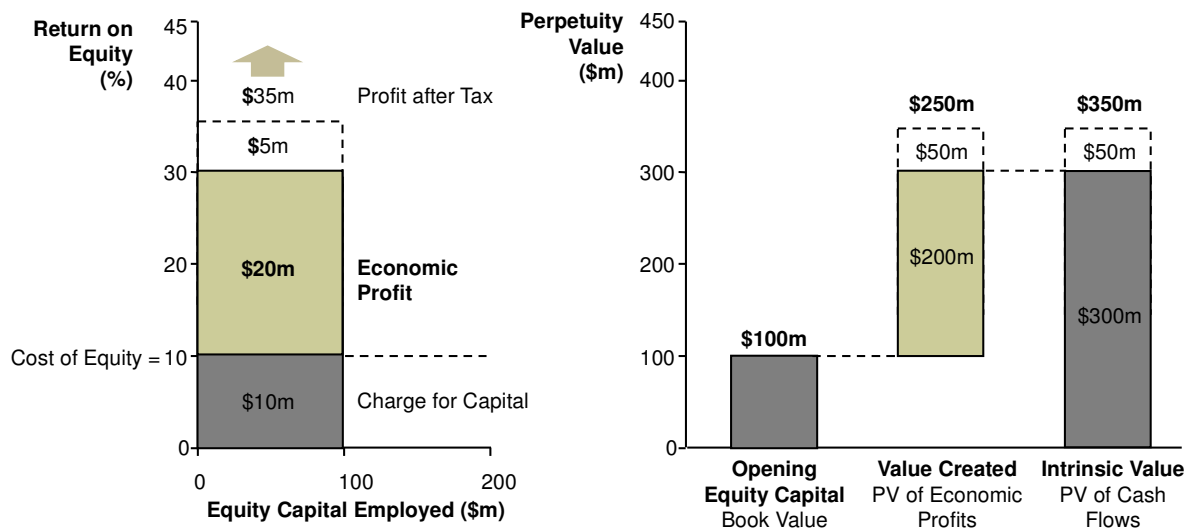
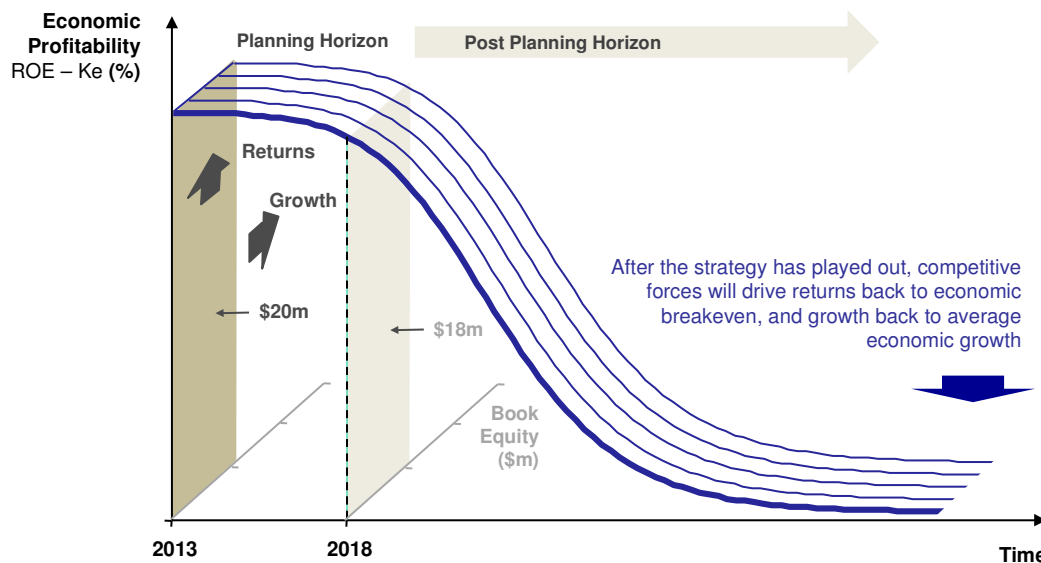


Figure 2 uses a zero-growth perpetuity to provide a simple illustration of a principle – namely that value uplift can be expressed as the PV of the expected increase in EP. However there are few if any zero growth businesses in practice – and even fewer that generate perpetuity EP streams. Most actual EP streams have a shape similar to the EP Bow Wave shown in Figure 3.

Figure 3. The EP Bow Wave



The three dimensions of the EP Bow Wave shown in Figure 3 represent the three fundamental drivers of value and value uplift for any business. The drivers of value are economic profitability (height of the bow wave), the capital base on which that return is earned (width of the bow wave) and the sustainability of economically profitable returns (length of the bow wave). The drivers of value uplift are change in economic profitability, growth in the capital base and any change in a company's ability to sustain economically profitable returns.

Importantly, the bow wave also provides the basis for a bridge between an internal view of performance related to book value, and an external view related to market value.

Over the long term, a company will preserve value if it delivers the bow wave of expected EP embedded in its share price. Value uplift will occur if it exceeds expectations – by delivering a higher, wider or longer EP bow wave. Value will be destroyed if it fails to meet expectations.

Measuring Performance from an External Investor Perspective

From the perspective of an external investor, there is really only one metric that matters – the economic return on market value.

Professional investors know the economic return on market value is the total shareholder return (TSR) they achieve over the long term, less their cost of equity capital (Ke). Market movements affect TSR over the short to medium term – making it easier to achieve a positive economic return (TSR-Ke) in a rising market and harder in a falling one. However this issue can be addressed quite simply.

Over the three years of a typical executive reward plan, or the roughly five-year tenure of most CEOs, the economic return on market value is the TSR delivered less the TSR required to match market performance – given movements in the market as a whole and the nature and risk profile of the company in question. We call this measure TSR Alpha™. Over the long term, TSR Alpha™ is exactly the same as TSR-Ke.

If a company delivers the EP expectations embedded in its bow wave, then over the short term, it will deliver a TSR Alpha™ of zero. Over the long term, it will deliver a TSR-Ke of zero.

The Problems with “Best Practice” in LTI Design

The majority of external remuneration consultants (ERCs) use relative ranking of TSR compared with peers to mimic TSR-Ke over the short term. But informed observers know this relative TSR measure doesn't work very well. Unless peer companies have similar risk profiles and capital structures (as well as being similar in many other respects), and are not subject to acquisition activity, relative TSR can produce lottery-like outcomes for executives – with high-risk companies winning in a rising market and low risk companies winning in a falling one, irrespective of management performance.

Despite its many shortcomings, proxy advisors around the world have become reasonably comfortable with relative TSR – although to be fair, not all are enamoured with it and most now require a secondary metric to be used in tandem. Unfortunately, the most commonly recommended tandem metric is EPS growth.

The belief that EPS drives value, and that EPS growth is therefore a good metric to use to encourage and reward value creation, is a complete myth. It has been known for thirty years in the field of value-based management (and proven many times by empirical research) that EPS is not a driver of value and so EPS growth is not a driver of TSR. This is because both measures ignore the capital required to achieve a particular level of earnings or earnings growth.

KBA recently completed a further study demonstrating that companies within the ASX 500 that grew their annual EP per share much faster than they grew their EPS over the past five years, delivered a TSR seven percentage points per year higher on average than companies that grew EPS faster than EP. The outcome from KBA's research is illustrated in Figure 4. A similar margin was evident in US research published by Peter Kontes in 2010¹.

¹ Kontes, The CEO, Strategy and Shareholder Value, Wiley, NJ, 2010

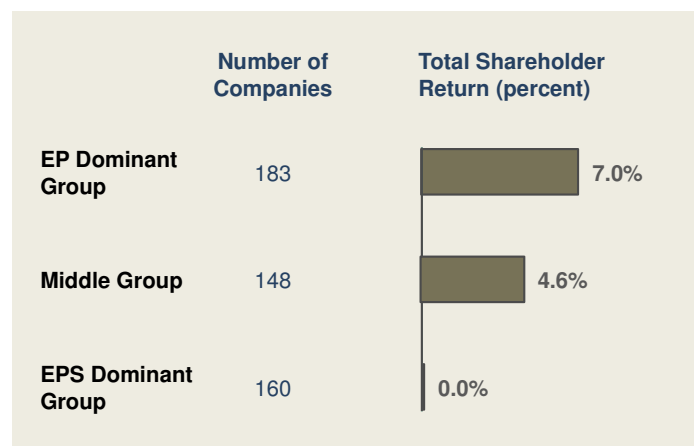
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Both pieces of research provided up-to-date empirical evidence suggesting that the pursuit of EPS growth and the pursuit of superior total shareholder return (TSR) outcomes are not compatible objectives – confirming the understanding of value-based management practitioners in place for the past 30 years.

The outcome of a slightly earlier version of this research made quite an impression on Denis Godfrey of GRG, who said in a related press release: “This is a significant issue because in recent years, an increasing number of companies have been adopting EPS growth in tandem with relative TSR as the vesting criteria in their executives’ long-term incentive plans. They have done this to try to overcome the problems associated with the use of relative TSR as a stand alone metric”.

Unfortunately, most ERCs now promote the use of relative TSR plus EPS growth in tandem as the most appropriate vesting metrics in LTI design. One of the main reasons ERCs promote it is they know that the boards that engage them will favour metrics that get a tick from proxy advisors and avoid a strike. Yet this combination of metrics will not encourage, reinforce or reward value-creating behaviour by executives.

Figure 4. Annualised TSR for ASX 500 Companies – Five Years to 30 June 2005²



Doing Better than “Best Practice”

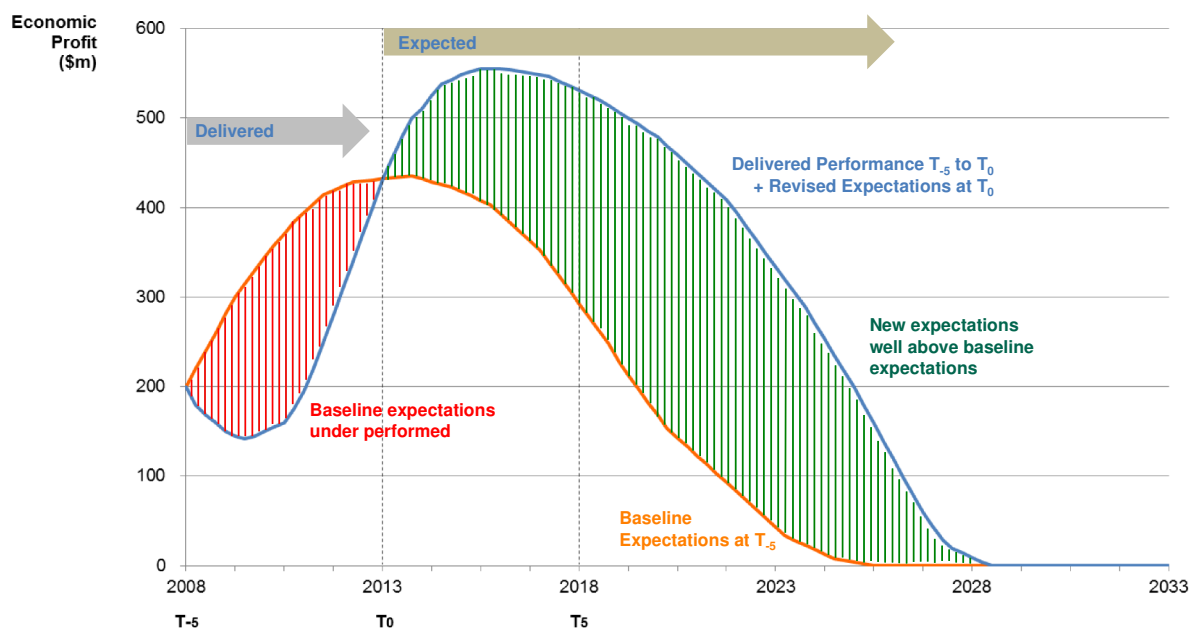
The key to incentive alignment between executives and shareholders is not a single-minded focus on short-term earnings or EPS growth. Nor is it a “lottery” structured around medium-term relative TSR outcomes. It is an explicit and systematic focus on medium-term EP growth, while at the same time building the internal capabilities necessary to deliver longer-term EP growth. The success of both endeavours leads to value uplift and the market’s assessment of management’s efforts in pursuing this goal is best captured in a measure we call TSR Alpha™.

The way this understanding can be incorporated into reward plan design is outlined in broad terms below – and illustrated in Figures 5, 6, 7 and 8.

It was asserted at the outset that value is created when management either delivers performance in excess of market expectations, or it convinces the capital markets that it has put a strategy in place that will enable it to do so. This understanding is captured in Figure 5.

² The research clustered the top 500-ASX listed companies into three similar sized groups:

- 183 companies whose annualised five-year weighted average uplift in EP per share was 10 percentage points or more greater than their weighted average uplift in EPS;
- 160 companies whose annualised five-year weighted average uplift in EPS was 10 percentage points or more greater than their weighted average uplift in EP per share; and
- 148 companies representing the remainder.

Figure 5. A Pair of Intersecting EP Bow Waves

The amber line represents baseline expectations in place in June 2008 – which is also the beginning of a five-year measurement period ended in June 2013. The first five years are derived from consensus analyst forecasts. The remainder from June 2013 onwards represents the EP profile required to underpin the share price as at June 2008.

The blue line represents actual performance over the measurement period, plus the new market expectations embedded in the share price as at 30 June 2013.

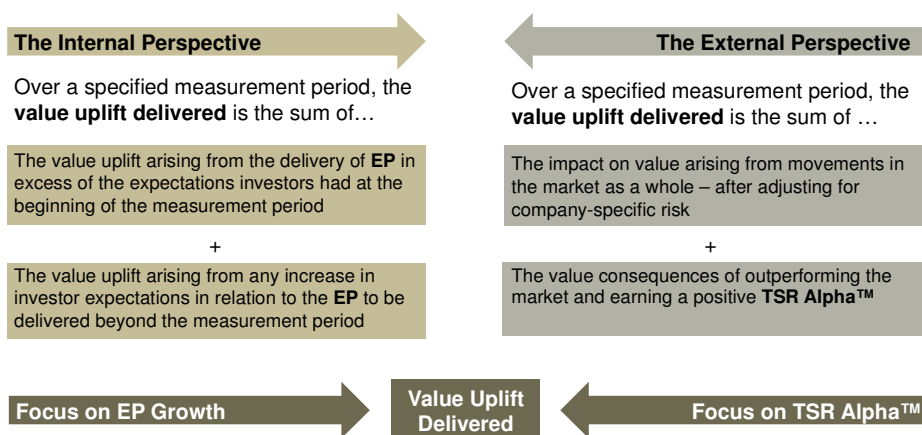
The red area represents the divergence between expectations in place at the beginning of the measurement period, and actual performance delivered over that period. In this illustration, there was underperformance so value was destroyed.

The green area represents the extent to which strategies developed during the measurement period gave rise to an increase in expectations of future EP to be delivered beyond the measurement period. In this case, expectations increased so value was created.

The sum of the PVs of the incremental EPs represented by the red and green areas represents the value uplift achieved over the measurement period.

Figure 6 demonstrates that the value uplift derived from the sum of the two “areas” in Figure 5, can also be determined directly from market data using TSR Alpha™. To do the latter, we simply calculate what the value impact would have been had a particular company matched market movements (after adjusting for company-specific risk using β) and then add the value consequences of outperforming the market and delivering a positive TSR Alpha™.

We have illustrated how this works for the banking sector in Figures 7 and 8.

Figure 6. Two Perspectives on Value Uplift**Figure 7. The Internal Perspective for the Banking Sector – Five Years to June 2013**

	Value Uplift from Exceeding Expectations (\$m)	Value Uplift from Increased Expectations (\$m)	Total Value Uplift (\$m)
ANZ Banking Group	(1,998)	21,447	19,450
Bank of Queensland	(544)	(613)	(1,157)
Bendigo and Adelaide Bank	(448)	(300)	(748)
Commonwealth Bank of Australia	903	44,558	45,460
National Australia Bank	(8,999)	8,510	(489)
Suncorp Group	(6,150)	1,853	(4,297)
Westpac Banking Corporation	7,179	10,687	17,866
Wide Bay Australia	(85)	(134)	(218)

Figure 8. The External Perspective for the Banking Sector – Five Years to June 2013

	Value Impact of Market Movements (\$m)	Value Impact of Earnings TSR Alpha™ (\$m)	Total Value Uplift (\$m)
ANZ Banking Group	(26,024)	45,474	19,450
Bank of Queensland	(1,009)	(149)	(1,157)
Bendigo and Adelaide Bank	(1,783)	1,035	(748)
Commonwealth Bank of Australia	(34,854)	80,314	45,460
National Australia Bank	(30,534)	30,045	(489)
Suncorp Group	(8,202)	3,905	(4,297)
Westpac Banking Corporation	(27,180)	45,046	17,866
Wide Bay Australia	(148)	(71)	(218)

Clearly, it makes enormous sense to use EP growth (or EP uplift) and TSR Alpha™ as LTI vesting criteria – rather than EPS growth and relative TSR. This is because EP uplift captures the value impact of performance delivered versus expectations over the measurement period (the “red area” in the illustration in Figure 5) and TSR Alpha™ captures the value impact of both the “red area” and the “green area” in the illustration in Figure 5.

The same logic means that it also makes sense to use EP as the basis for the economic component of the STI.

Performance Compared with Sector Peers

One question often raised about this approach is the ability of TSR Alpha™ to deal with performance versus peers within a sector in periods when performance across the sector as a whole is either enhanced or suppressed by factors outside the control of any company's management team – resulting in a counter cyclical shift in value across a sector as a whole.

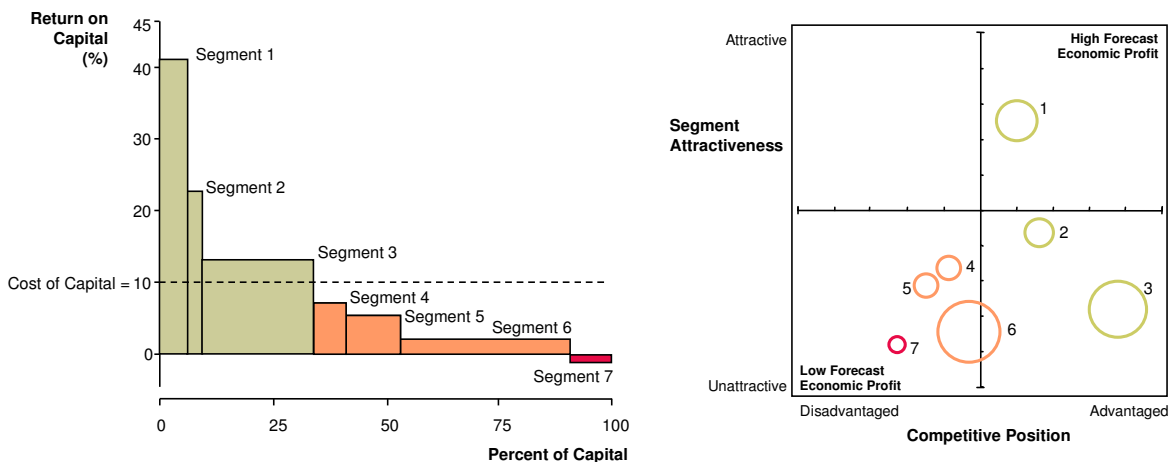
One very simple way to deal with this is to leave the board with discretion to adjust the TSR Alpha™ vesting thresholds in the event that the sector as a whole experienced a material shift in performance (or sentiment) that was counter cyclical to the market as a whole.

For example, if expectations are met and a TSR Alpha™ of zero is achieved, then in the normal course of events, this might attract 50 percent vesting. A TSR Alpha™ of five percent might mean 75 percent vesting and a TSR Alpha™ of ten percent might mean full vesting. In the event that there was a counter cyclical shift in value affecting the sector as a whole, then these thresholds could be lifted (or lowered) at the discretion of the board – in a manner similar to that done recently by BHP Billiton.

Managing to EP Rather than EBIT

Some senior executives and NEDs have also questioned the ability of people to understand and manage to EP at lower levels within a company. The KBA team has been down this path many times in a wide range of industries in Australia, New Zealand, North and South East Asia, the USA and both Western and Eastern Europe. Our experience is that the answer lies in a combination of understanding through training and familiarity through use – and in particular the use of diagrams such as that in Figure 9 to communicate performance (including its link to strategic position when needed).

Figure 9. Integrated Strategic and Financial Assessment



Ultimately, the key is not so much to just embed thinking in terms of EP and EP uplift, but to put in place the three capabilities required to manage for value that are illustrated in Figure 10. More than anything else, it is the establishment of these capabilities that enables a company to achieve a higher, wider and most importantly longer bow wave.

Figure 10. The Capabilities Required to Manage for Value**Value Measurement Capability**

Understand where value is being created, where it is being destroyed, and why, under the current strategy

Value Creation Capability

Develop and evaluate potentially higher value alternative strategies, and then adopt and commit to a higher value strategy

Value Management Capability

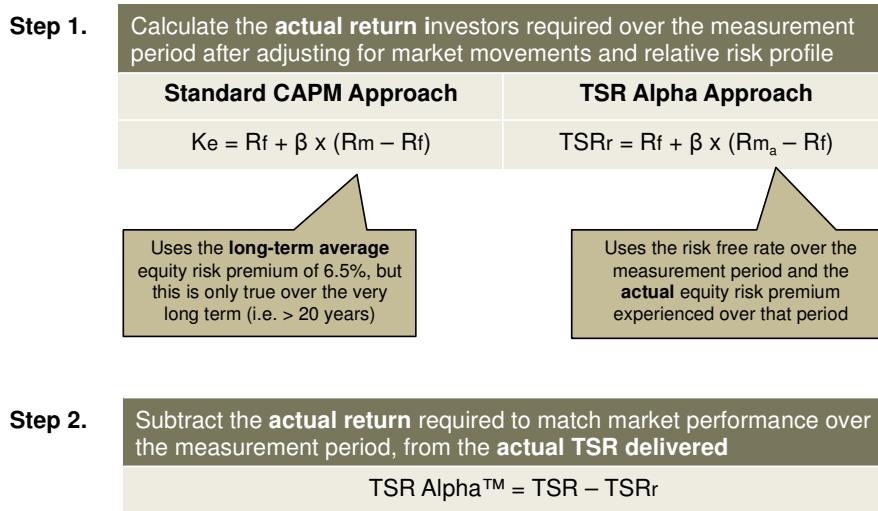
Put in place business processes and systems to encourage the ongoing pursuit of even higher value strategies over time

The legacy of good business leadership is an institution that not only outlives the tenure of the current executive team, but which also prospers well into the future as a result of the decisions taken and capabilities established during their tenure. The key to leaving such a legacy is the establishment of these three capabilities.

Appendix. Calculating TSR Alpha™

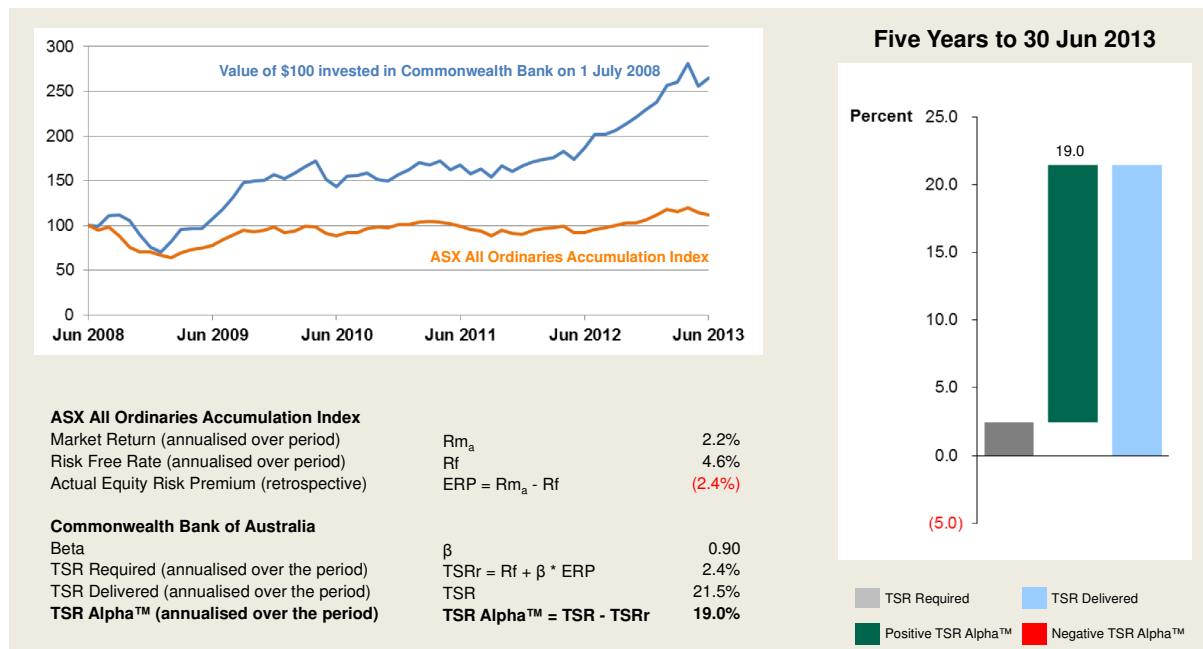
The TSR required to match market performance after adjusting for company specific risk (TSRr) and TSR Alpha™ are calculated using the Capital Asset Pricing Model (CAPM). However we use the actual ERP experienced over the measurement period rather than the long run average.

Figure A1. Calculating TSR Alpha™



Over the five years to 30 June 2013, the CBA delivered an annualised TSR 19.0 percent higher than the TSR needed to match market performance – after adjusting for company specific risk.

Figure A2. Calculating TSR Alpha™ for the Commonwealth Bank



Appendix B. Glossary of Terms

Term		Description
Beta	β	A measure of relative risk of a company compared with the market as a whole. It is an important input parameter in the capital asset pricing model used to calculate the cost of equity capital (K_e)
Capital Asset Pricing Model	CAPM	A fundamental principle of corporate finance that defines the means with which to calculate the risk-adjusted cost of equity capital (K_e). The inputs to the CAPM are the risk free rate of return (R_f), beta (β) and the equity risk premium (ERP)
Company-specific Sentiment		The extent to which the market capitalisation of a company differs from its underlying intrinsic value by virtue of investor attitudes specific to the company at a particular point in time
Cost of Equity Capital	K_e	The minimum return on equity capital required by shareholders in order to preserve the value of their investment. It is calculated using the capital asset pricing model such that $K_e = R_f + \beta \times ERP$
Earnings Before Interest and Tax	EBIT	An accounting measure representing the pre-tax profit available to the providers of both debt and equity capital
Earnings per Share	EPS	An accounting measure representing the after-tax profit (PAT) available to the providers of equity capital (shareholders) divided by the weighted average number of shares on issue over the measurement period
Economic Profit	EP	An economic metric representing the after-tax profit available to the providers of capital after subtracting a charge for capital commensurate with their opportunity cost of capital. It is also equivalent to economic profitability (EPy) multiplied by opening equity capital. The benchmark level of EP is zero, which when achieved, preserves the book value of capital
Economic Profitability	EPy	An economic measure representing the percentage by which the return on equity (ROE) exceeds the cost of equity capital (K_e). It is also equivalent to economic profit (EP) divided by opening equity capital and can be considered the economic return on the book value of capital
Equity Risk Premium	ERP	The excess return achieved in the equity market over and above the return achieved on a risk free asset ($R_m - R_f$). Over the long run (> 20 years), this has been and is expected to remain approximately six percent, but can vary significantly over shorter periods
Growth	g	When applied to economic metrics, growth specifically refers to the growth in the equity capital base upon which returns are earned over a specific measurement period
Intrinsic Value		The theoretical value of a company under a particular strategy based on the present value of expected future cash flows or expected future

economic profits (EP)

Intrinsic Value Uplift		The change in intrinsic value over a specified measurement period. It can be calculated from an internal perspective as the present value (PV) of the expected increase in either economic profit (EP) or cash flow, or from an external perspective using TSR Alpha™
Market Capitalisation		The stock market's view of the value of the shareholders' equity in a company under a given strategy. The market capitalisation of a company may be higher or lower than its intrinsic value depending upon the existence and nature of either positive or negative sentiment
Market Return	Rm	The return achieved by investors across the equities market as a whole. In Australia, this is the compound annual growth rate of the All Ordinaries Accumulation Index
Market Sentiment		The extent to which the market capitalisation of a company differs from its underlying intrinsic value by virtue of investor attitudes to the equity market as a whole at a specific point in time. It can also be thought of as the extent to which overall investor attitudes push the total shareholder return (TSR) achieved in the market as a whole above or below the long-run expectations embedded in the equity risk premium (ERP)
Present Value	PV	The process of converting a monetary amount or a monetary stream into a single value today – taking into account the time value of money. The time value of money reflects the fact that a dollar received in the future time is worth less than a dollar received today
Profit after Tax	PAT	An accounting measure that represents the after-tax profit available to the providers of equity capital (shareholders)
Relative TSR		The total shareholder returns of a company over a specified period measured relative to those of either a defined peer group or an index. It is currently used widely for vesting purposes in long-term incentive plans, despite being widely recognised as a flawed measure
Return on Equity	ROE	Profit after tax (PAT) divided by the equity capital employed at the beginning of the measurement period
Risk Free Rate	Rf	The return required on an investment in a risk free asset. Rf is typically measured using the yield on Australian Government (treasury) bonds. The term structure of the investment will dictate whether it is appropriate to adopt a 10-year, 5-year or 1-year risk free rate
Shareholders' Equity or Shareholders' Funds		The value of the shareholders' investment in the company. The book value of shareholders' equity is that component of the capital invested in the company that is owned by shareholders. It is also referred to as equity capital. The market value of shareholders' equity is the market value of that capital – or market capitalisation

Total Shareholder Return	TSR	A market-based metric that captures the return derived by shareholders in the form of dividends plus share price appreciation. It is defined as dividends plus change in share price over a given measurement period, divided by the share price at the beginning of the period
TSR Alpha™		An economic metric representing the extent to which the total shareholder return delivered (TSR) over a particular measurement period exceeds the TSR required by shareholders to match market performance given the relative risk profile of the company in question (TSRr). The benchmark level of TSR Alpha™ is zero.
TSR Required	TSRr	The TSR required by investors in order to match market performance given the relative risk profile of the company in question.

About the Authors

Denis Kilroy (BE, MEngSc) is the Managing Director and Marvin Schneider (BE, MBA) is a Partner with The KBA Consulting Group. Steven Bishop (BEc, MCom, PhD) is a Director of Education and Management Consulting Services. Each author has between 20 and 30 years experience in value-based management consulting in Australasia, North America and Europe.

Denis established KBA in 1994 after some ten years working in the UK, USA and Australia with L.E.K and Marakon Associates where he was a Partner. He is a thought leader in a number of areas, including: how to unlock and harness individual and organisational creativity; the link between customer value creation and shareholder wealth creation; and how to develop strategies that create customer value, build shareholder wealth and enhance community wellbeing.

Marvin is an authority on a number of aspects of company valuation, and is uniquely skilled in understanding both the nature and quantum of any difference between the intrinsic value and the market value of a listed company. Before joining KBA, he was a Senior Associate with Marakon Associates in Australia and the UK. He also spent a number of years as Head of Value Management at the ANZ Bank.

Steven began his career in academia and is co-author of a leading corporate finance text. He then had a successful career in consulting with a number of firms including Marakon Associates and L.E.K. where he was a Partner. He also co-founded a firm with a focus on business valuations, including the valuation of compensation plans for reporting purposes. His primary focus now is on executive education and the regulatory cost of capital.

Over the past two years Denis and Marvin have been engaged in a major development effort seeking to enhance the way companies measure and reward performance. The result is a new approach to corporate performance management and measurement centred on the pursuit of value enhancement through ongoing economic profit growth. KBA refers to this as *The EP Uplift + TSR Alpha™ Construct*. Steven became involved in the development effort more recently to review the work of Denis and Marvin, and to help refine certain elements of the approach.