



# Performance Metrics and Their Link to Value

Prepared by Farient Advisors LLC

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# Performance Metrics and Their Link to Value

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## Performance Metrics and Their Link to Value

### Background on Research Provider



**Farient Advisors LLC** is an independent executive compensation and performance consultancy which helps clients make performance enhancing and defensible executive compensation decisions that are in the best interests of their shareholders. Farient provides a comprehensive array of executive compensation and performance advisory services, including compensation strategy and planning, program design, decision support, process support, and other services including board of director compensation, technical reviews, investor communications, and assistance in transactional situations. In addition, based on its extensive data base covering the Russell 3000, Farient offers a proprietary performance and pay Alignment Model to help assess, improve, and convey pay and performance alignment. Farient Advisors was founded in 2007 and has offices in Los Angeles and New York. Farient also is affiliated with Kepler Associates, a London-based firm.

### Background on Data Provider



Data for this research report is provided by **Incentive Lab**, a financial data and science firm that focuses on providing clients with superior data and essential insight into their executive compensation practices. Incentive Lab's proprietary compensation data and their team of world-class academicians and analysts deliver unparalleled depth and insight into executive compensation.



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## Executive Summary

One clear outcome from Say on Pay voting on executive compensation has been a focus on pay for performance. To determine how well executives are aligned to the long-term performance of their companies, investors are evaluating to what extent executive compensation, particularly for the CEO, is linked to company performance, as opposed to being based on the passage of time – what is sometimes referred to as “pay for pulse.”

As the prevalence of performance-based compensation rises, it is incumbent upon boards to become increasingly discerning about how that performance is being measured. The performance metrics selected, as determined by the company and its board of directors, are deemed to be the best measures of corporate success. Investors and other interested stakeholders wish to validate that these metrics are in fact linked to Total Shareholder Return, or TSR.

Shareholders are increasingly augmenting the discussion on *how much* compensation is performance-based with *how* that performance is being *measured*. They want to understand what metrics are used in performance-based long-term incentive (LTI) plans, why those measures were chosen, and how performance against those measures impacts shareholder value.

This groundbreaking research covers 1,800 companies, 24 Industry Groups, and fourteen years of data (from 1998-2011). It identifies the primary metrics used in executive compensation plans, overall and by industry, company size, and valuation premiums, and then tests these metrics to determine whether the metrics being used have the highest impact on TSR results. It provides the most definitive answer to date on a critical question: “Are companies choosing their long-term incentive (LTI) metrics wisely for the most sustainable benefit to shareholders?”

## Key Findings and Conclusions

- Executive compensation design has moved towards long-term incentive (LTI) components in an attempt to align management interests with those of long-term shareholders; further, those LTIs are now largely performance-based
- Among companies using performance-based LTIs, most (53%) use a mix of TSR and financial measures in their equity LTI plans; others (28%) use financial measures only; and a smaller minority (15%) use TSR only. This use rate puts a premium on getting the financial measures right
- In aggregate, performance metrics are generally well-aligned with shareholder value. Earnings Growth, followed by Returns and Revenue Growth, has the greatest impact on TSR. In general, this matches the use patterns for financial metrics in LTIs: Earnings Growth is the most popular financial measure, followed by Returns and Revenue Growth. TSR (usually measured on a relative basis) is used as a direct measure of shareholder value in over 40% of companies with performance-based LTIs
- Many industries have a number of metrics to choose from. Half of the 24 Industry Groups have at least three metric categories with strong correlations



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- However, the optimal use of measures differs considerably by industry. Industry Group, in general, as an indicator of business model, has the strongest influence on performance metrics used, with size and valuation premiums having little impact on metric selection
- The good news is that half of the 24 Industry Groups use metrics that most highly correlate to value, and also use TSR as a direct measure of shareholder value
- The bad news is that the other half of Industry Groups could use some improvement. The companies in these industries either are not using the metrics that are most strongly correlated to value or, when the overall correlations of financial metrics to shareholder value are poor, they are not sufficiently using TSR as a direct measure of shareholder performance. More specifically, the most significant improvement opportunities in these industries include:
  - Greater need to use TSR directly when correlations to value are poor
  - Need to balance growth with a greater use of efficiency measures, like Returns and/or Margins
  - Greater need to take capital investments into account, not just the earnings from those investments
  - Recognition that Revenue Growth can be a close second in correlation to value compared to Earnings Growth, offering the opportunity to supplement Earnings with Revenue Growth if indicated by the company's strategy and growth opportunities

### *Recommended Actions*

We predict that metrics will become increasingly important and visible as investors and executives try to better align executive incentives with shareholder interests. This analysis suggests some key steps that investors and companies should take in order to improve that alignment. These include:

- Companies should undertake their own analysis to determine which measures of performance have the most influence on their shareholder value. In this regard, various measurement definitions (e.g., how depreciation, capital expenditures, asset definitions, and other items are treated) could make a significant difference to shareholder value and should be given careful consideration
- Companies should try to find two or three key metrics that appropriately balance growth and returns and demonstrate a proven link to value. However, if overall correlations to value are poor, or only one financial metric correlates to value, then companies should choose a single financial metric, non-financial metrics, and/or TSR, and should support this choice with a strong rationale
- Investors are likely to increase engagement activities around executive compensation in general, and specifically on performance metrics. In communicating with investors, companies should present (and investors should expect) compelling evidence as to how various measures of performance will lead to enhanced shareholder value

\* \* \* \* \*

We hope that this analysis is illuminating for investors and companies alike, and that it contributes to the quality of the dialog around how incentive programs, and the metrics that drive them, can enhance shareholder value and support the alignment between pay and performance.

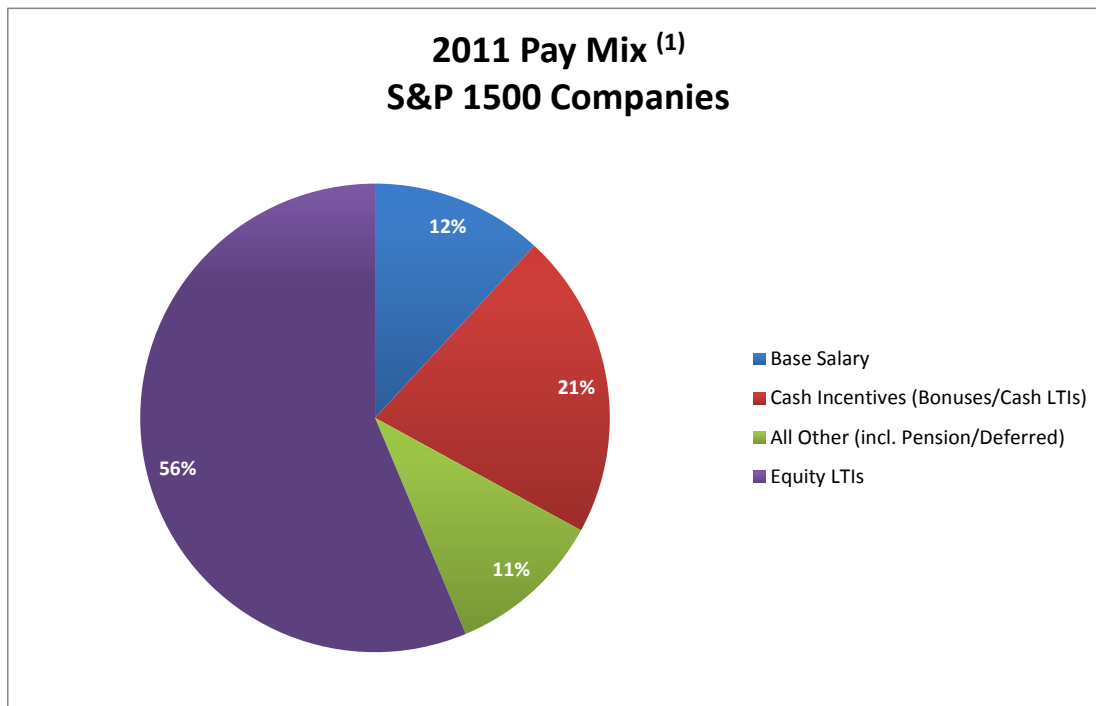


# Performance Metrics and Their Link to Value

## Introduction

One clear outcome from Say on Pay voting on executive compensation has been a focus on pay for performance. To determine how well executives are aligned to the long-term performance of their companies, investors are evaluating the extent to which executive compensation, particularly for the CEO, is linked to company performance, as opposed to being based on the passage of time – what is sometimes referred to as “pay for pulse.”

Performance is viewed by most investors as encompassing results over the long term, defined as three years or more. Executive compensation design has moved towards long-term incentives (LTIs) in an attempt to align management interests with those of long-term shareholders. According to research conducted by Farient Advisors, equity LTIs (stock options, restricted stock (or units), and performance shares (or units)) now comprise over half of total compensation for CEOs in the S&P 1500, as shown in the graph below.



*(1) Based on Summary Compensation Table data*

The prevalence of performance-based equity (i.e., equity that vests based on performance vs. time) has shifted dramatically over the past decade, with approximately 70% of companies offering performance-based equity today, up from 20% ten years ago. As the prevalence of performance-based compensation rises, it is incumbent upon boards to become increasingly discerning about how that performance is being measured. The performance metrics selected, as determined by the company and its board of directors, are deemed to be the best measures of corporate success. Investors and other interested stakeholders wish to validate that these metrics are in fact linked to Total Shareholder Return (TSR), defined as stock price appreciation plus dividends, as if those dividends had been reinvested in the company's stock.



## Performance Metrics and Their Link to Value

To conduct this research, we identified the primary metrics being used in executive compensation plans, overall and by industry, company size, and valuation premiums. We then tested the extent to which those metrics correspond to TSR to help answer the question, “Are companies choosing the right performance metrics?”

TSR is not the only measure of performance, of course, but it is a primary focus of shareholders and management. The box on page 8 provides a perspective on how TSR is viewed by investors and companies.

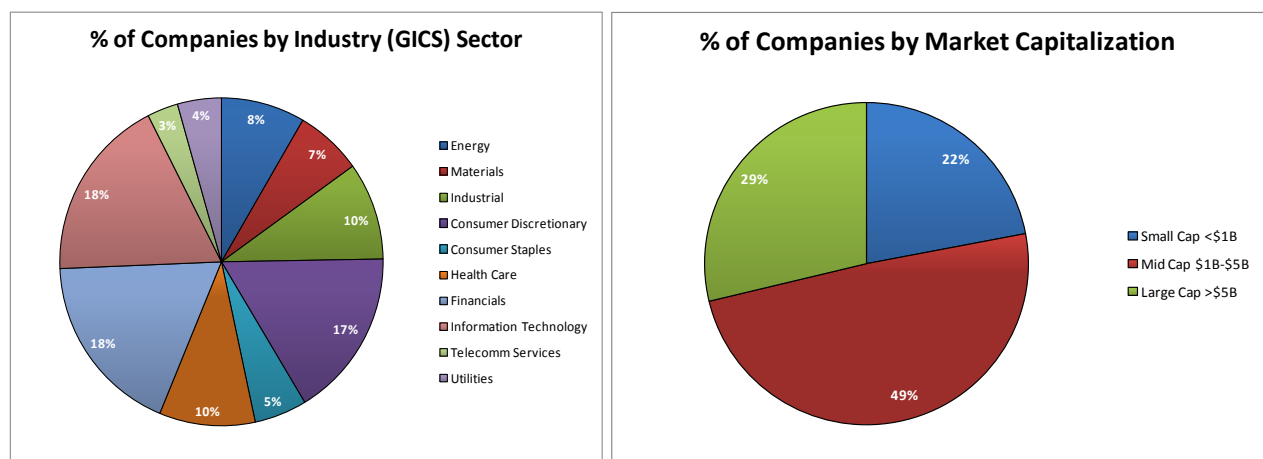
### *Profile of Data and Research Universe*

The database used for this research was largely provided by Incentive Lab, which collects and analyzes data on performance metrics. Data from 1998-2011 were used in the research, capturing the top 750 companies in market capitalization for each year covered, for what comprised a database of over 1,800 companies.

Data on performance metrics were supplemented by additional data provided by Farient Advisors on executive pay trends. Farient conducted an in-depth analysis based on its experience analyzing and developing pay programs and performance measurement systems that link to shareholder value.

In conducting this research, Farient analyzed companies by Industry (as indicated by their 2- and 4-digit Global Industrial Classification Standard Codes (GICS)), size (as indicated by market capitalization), and valuation premiums (i.e., the premium of the market value over the book value of the company ). This research is intended to identify patterns, trends, and data relationships across the broad categories, but not to draw conclusions about specific companies. All data collected pertain to that for the Named Executive Officers, as disclosed in company proxy reports to shareholders.

As indicated in the charts below, the companies in the performance measurement data set span all industries, as well as a wide range of sizes (based on market capitalization) and valuation premiums (based on market-to-book ratio). The valuation premiums split companies evenly into three equal groups – Growth (i.e., those with valuation premiums of 2.7 or higher), Value (i.e., those with valuation premiums of 1.5 or lower) and Neither (i.e., those with valuation premiums higher than 1.5 but lower than 2.7).





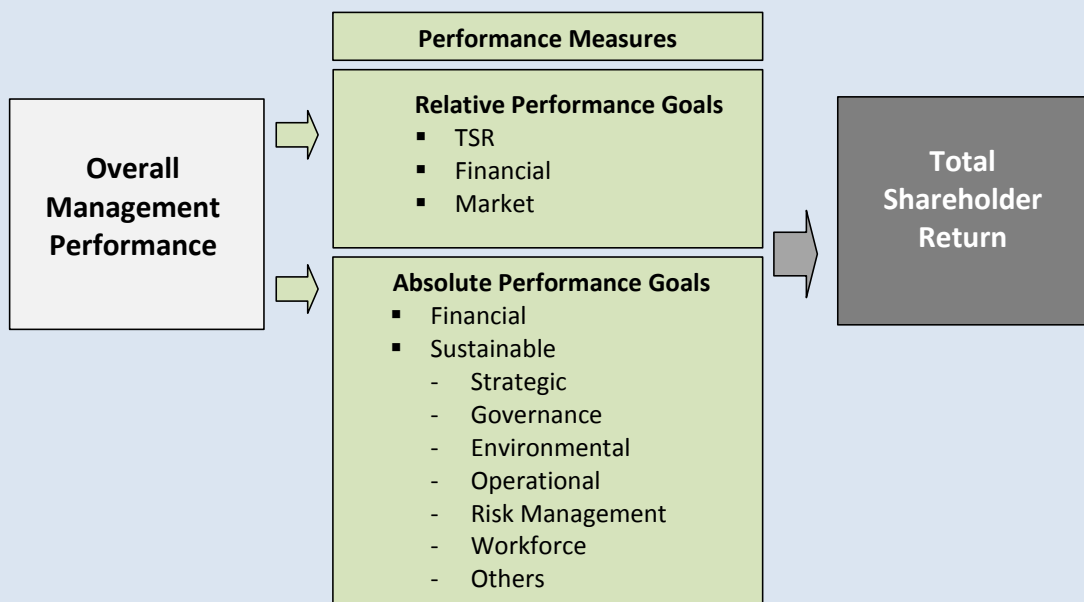


### Choosing the Right Performance Measures A Portfolio Approach to Performance Measurement

The board is elected directly by shareholders to grow the value of the enterprise, and in doing so, to protect shareholder interests. In turn, the board hires CEOs and their top teams to make it happen. These top managers are agents who perform their jobs on behalf of the investors. Within this context, the most important indicator of long-term success, and ultimately of executive performance, is total shareholder return (TSR). The potential for generating a competitive TSR, relative to the risks taken, is the most important reason investors buy shares in a company. TSR is a good indicator of whether and how much value is being created by a company's top management team. It also is a good, overall measure of performance outcomes.

At the same time, the *sustained* financial results of the company generally drive TSR. Because each business is different, not all financial measures link to shareholder value in the same way. The key is to find which financial measures of performance have the most influence on value, and then tie incentives to these measures. There is value in tying incentives to financial measures, and not just directly to TSR, since executives generally have better line-of-sight to the financial performance of the company than to stock price performance. In the long run, tying executives to the right financial measures essentially holds executives accountable for TSR.

Supplementing TSR and financial measures with strategic measures that indicate sustainability of success—things like customer satisfaction, operational achievements, employee engagement, and risk — can be important as well. These factors might not show up in the current stock price, but they likely will over time. Supplementing TSR with financial and strategic measures is a “portfolio approach” to performance measurement, depicted in the exhibit below. It shows how long-term TSR is a strong factor in assessing executive performance and pay, since it is most directly aligned with shareholder interests, and measures the ultimate result for shareholders. But it also shows that no one measure likely will tell the whole story.



Excerpt from *Fair Pay, Fair Play: Aligning Executive Performance and Pay*, Jossey Bass, 2010



# Performance Metrics and Their Link to Value

## *Organization of Research Results*

We have organized our findings broadly into five chapters: (1) trends in equity compensation; (2) trends in the use of various performance metrics; (3) trends in relative vs. absolute benchmarks; (4) metrics most correlated with TSR; and (5) the extent to which companies are using metrics most correlated with TSR.

### **Chapter I: Trends in Equity Compensation**

Specifically, the **Trends in Equity Compensation** chapter is arranged as follows:

- Equity award types – trends in the use of stock options compared to “full-value” shares, which are defined to include both restricted shares or units (time-based) and performance-based shares or units, and current use by industry, size, and valuation premiums
  - Full-value shares are shares that vest (i.e., are earned) on the basis of either continued employment with the company over a given period of time, and/or on the basis of meeting pre-determined performance conditions
  - Stock options provide the right to purchase a share of stock at a given price over a given period of time, subject to vesting restrictions (usually time-based, but can be performance-based), thereby providing the recipient the opportunity to earn an amount equal to the appreciation in that stock
- Performance-based Equity – trends in use of performance-based (vs. time-based) equity and current use by industry, size, and valuation premium
- Pay Mix – current use of different pay components (e.g., salary, cash incentives and LTIP awards) by industry

### **Chapter II: Trends in Performance Metrics**

To analyze trends in performance metrics, we grouped specific metrics into the broader categories, shown below, to simplify our discussion and presentation of metrics, where appropriate. These broader categories, or Metric Types, will be used to summarize results throughout this report.

Specifically, the **Trends in Performance Metrics** chapter is arranged as follows:

- Performance Metrics – trends in the use of various metrics
- Specific Financial Performance Metrics – trends in the use of specific financial metrics
- Performance Metrics by industry, size, and valuation premiums – current use of various metrics by industry, size, and valuation premiums

The following table summarizes the broader Metric Types and the more specific Metrics used in this report.



## Performance Metrics and Their Link to Value

Metric Type	Metric
TSR	Total Shareholder Returns: Stock Price Appreciations, including Dividends
Earnings Growth	Earnings: Income Before Extraordinary Items EBITDA: Earnings Before Interest, Taxes, Depreciation, and Amortization EBIT: Earnings Before Interest and Taxes EBT: Earnings Before Taxes EPS: Earnings Per Share
Earnings Margins	Various Earnings Measures (EBITDA, EBIT, etc.) ÷ Revenues
Returns	ROA: Return on Assets ROE: Return on Equity ROIC: return on Invested Capital
EVA	Economic Value Added: Net Operating Profit After Tax - Capital Charge
Cash Flow	Cash Flow from Operations Funds from Operations Free Cash Flow growth
Revenues (Sales)	Revenues (Sales) Sales Contracts Same Store Sales
Individual	Individual Performance
Other	Book Value Cost Reduction Customer Satisfaction Debt-related FDA Approval IPO of Subsidiary Operational Working Capital Others

### Chapter III: Trends in Relative vs. Absolute Benchmarks

Specifically, the **Trends in Relative vs. Absolute Benchmarks** chapter is arranged as follows:

- Absolute and Relative Performance Benchmarks – trends in use of absolute vs. relative benchmarks for determining the number of performance shares earned
- Comparisons Used for Relative Benchmarks– trends in the type of benchmark used (peer group vs. index (or companies in the index))
- Relative Performance-based Equity Awards – current use of relative benchmarks by industry, size, and valuation premiums

### Chapter IV: Metrics Most Correlated with TSR

To determine **which metrics are most correlated with TSR**, we analyzed the correlations between financial measures of performance and TSR over 3- and 5-year rolling periods, using the 1998 to 2011 data set. To conduct the correlation analysis, we tested over 20 specific financial measures. Non-financial metrics, such as “Individual Performance” and “Other,” were not included in the analysis. We also tested static as well as



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dynamic growth measures. For example, we tested both earnings as a percent of sales (a static measure) as well as earnings growth (a dynamic measure).

Specifically, this chapter explores the correlation results, i.e., which measures of performance correlate most closely with TSR by the 24 GICS Industry Groups. It is important to note that correlation does not infer causality. Since we are measuring correlations between financial metrics and TSR over contemporaneous time periods, some of the correlations may be due to a large number of companies adopting the same metrics and executives increasing their focus to deliver better results on those metrics. In addition, we recognize that there is a bias in the correlation analysis, since growth measures, like Earnings Growth and Revenue Growth, are dynamic measures, just like TSR. Dynamic measures gauge performance from period to period, while static measures gauge performance within a period. Correlating dynamic measures with TSR, which is itself a dynamic measure, vs. correlating static measures with TSR, favorably advantages the dynamic measures in the analysis.

### **Chapter V: The Extent to Which Companies Are Using Metrics That Best Correlate with TSR**

To determine **the extent to which companies are using metrics that most closely correlate to TSR**, we compared the list of most frequently used performance metrics to the list of metrics that most closely correlate to TSR by Industry Group.

In this final chapter, we show which industries generally are using and which are not using those measures that most closely relate to shareholder value. In addition, we share our observations on areas for improvement by Industry Group.

### **Key Takeaways**

In our closing remarks, we discuss the key takeaways from our analysis for investors as well as issuers.



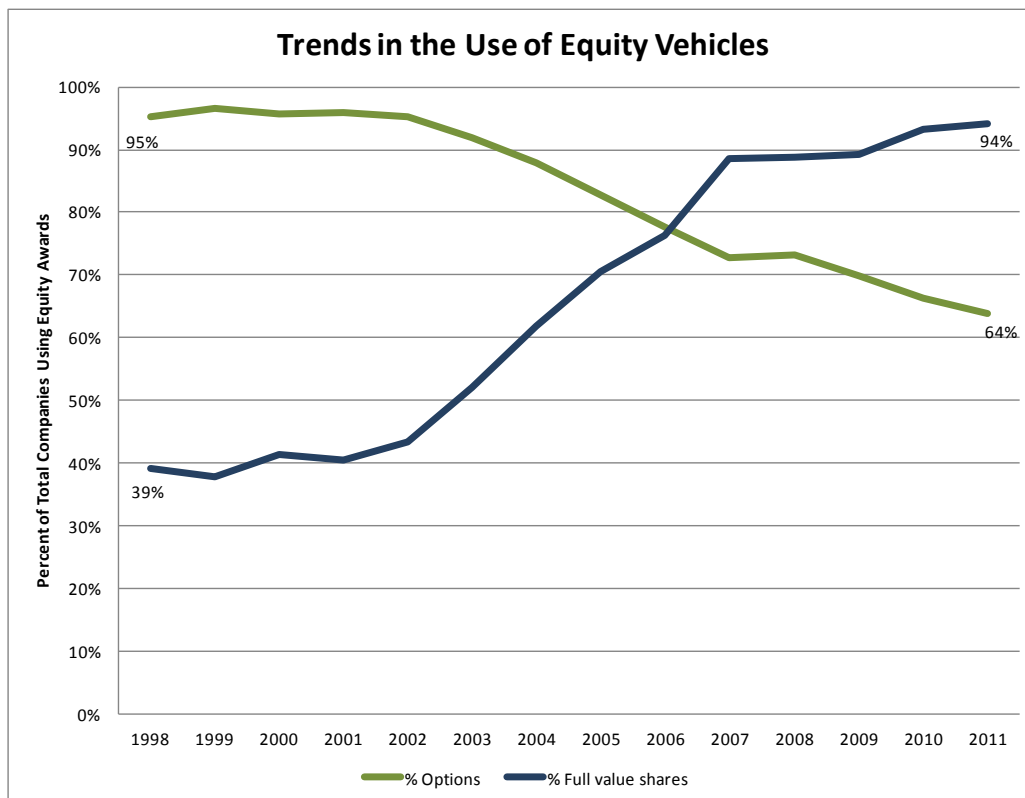
## Chapter I: Trends in Equity Compensation

### *Equity Award Types*

In the late 1990s, stock options were the equity vehicle of choice. Nearly all companies (95%) offered stock options. The popularity of stock options was, in part, driven by the run-up of stock prices in the 1980s and 90s, making these vehicles tremendously valuable to many recipients. In addition, stock options, unlike full value shares, did not have to be charged to earnings, which was an added benefit in the eyes of many companies. As a result, the use of full value shares (i.e., restricted shares and performance shares (or units)) was minority practice (39%).

But all of that changed in the early 2000s due primarily to three factors. First, the stock market plummeted in 2000 and 2001, causing options to have less real and perceived value among recipients. Second, in 2006, the Financial Accounting Standards Board required stock options to be charged to earnings, making them no longer seem “free.” And third, following the deep economic recession of 2008 and 2009, investors were less enthusiastic about encouraging executives to take on increased risks through the issuance of high risk compensation vehicles like stock options. In the aggregate, this “perfect storm” caused a significant decline in the use of stock options, coupled with an increase in the use of less risky equity vehicles in the form of full value shares.

Today, the tables are turned. About 95% of companies use full value shares, while approximately two-thirds of companies use stock options, as shown in the table below.

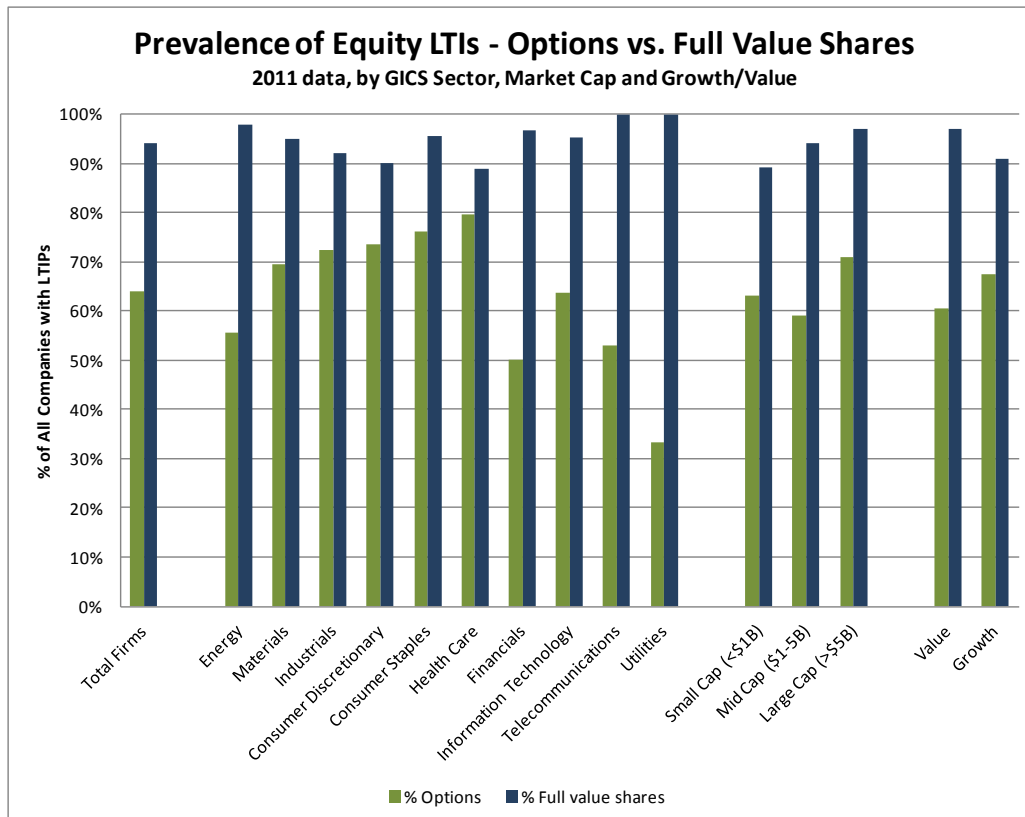




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From an industry perspective, the use of full value shares is consistently high across all Industry Sectors, with 90% or more of companies using full value shares across all Sectors. Options, on the other hand, are much more prevalent in some industries compared to others. For example, options have the lowest prevalence in the Utilities, Financial Services, and Telecommunications industries. This is because Utilities, Telecommunications, and some Industry Groups within Financial Services, such as Real Estate, offer relatively high dividend yields. Stock options do not give credit for dividends, whereas full value shares do. This, in turn, explains the low incidence of stock options in these industries. In addition, financial services companies are highly sensitive to managing the extent to which their incentive programs encourage risk-taking. As a result, restricted stock is a more palatable pay vehicle since it is inherently less risky than stock options.

The use of options appears most closely linked to industry, rather than to company size and valuation premiums (at least within the universe of companies included in this analysis). As a result, the strategic and financial business characteristics of the organization seem to be more important than size or valuation in explaining the use of equity incentive vehicles.



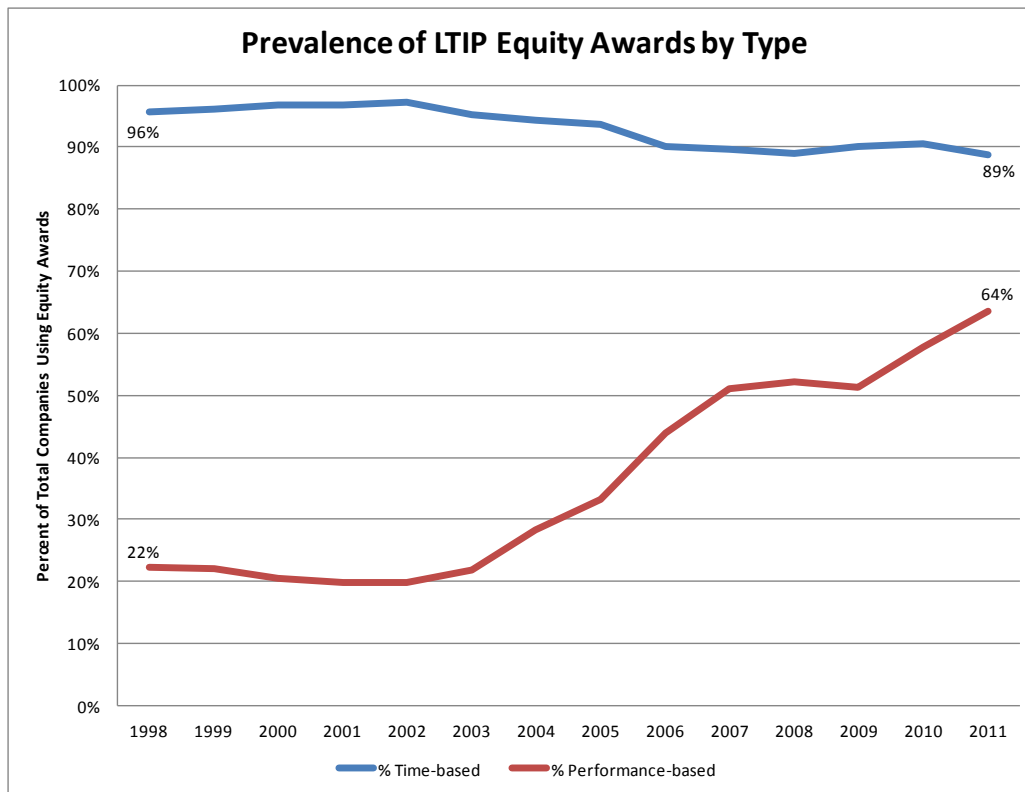
### Performance-based Equity

While the percentage of companies using time-based equity awards has remained relatively stable, the use of performance-based awards has risen sharply since 2002. Most of the time-based awards are in the form of stock options and full value restricted shares, while most of the performance-based awards are in the



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form of performance shares. A decade ago, approximately 20% of S&P 1500 companies offered equity LTIs that vested on the basis of performance. Today, nearly two-thirds of companies offer such awards. If long-term cash awards are included, the percentage of companies offering performance LTIs is approximately 70%. Interestingly, the use of performance shares (units) is generally supplementing the use of time-based options and restricted shares, not replacing them.



The more prevalent use of performance plans is driven by a number of factors:

1. **Pay for Performance** – there is greater pressure by investors to align pay with performance. This makes sense given the increase in executive compensation over the years, largely through the addition of long-term incentives, and the drive by investors to make those LTIs count for something
2. **Sustainability** – there is a heightened interest among investors to ensure that performance is sustainable. Putting greater performance focus on long-term incentives is a way to deliver pay only when performance is sustainable
3. **Financial** – under IRS code 162(m), compensation over \$1 million to the Named Executive Officers (excluding the CFO) is deductible by the company only if that compensation is considered to be “performance-based.” Performance-based full value shares, if structured properly, are deductible, while restricted shares are not
4. **Management focus** – companies see performance-based equity as a way to focus executives on long-term performance

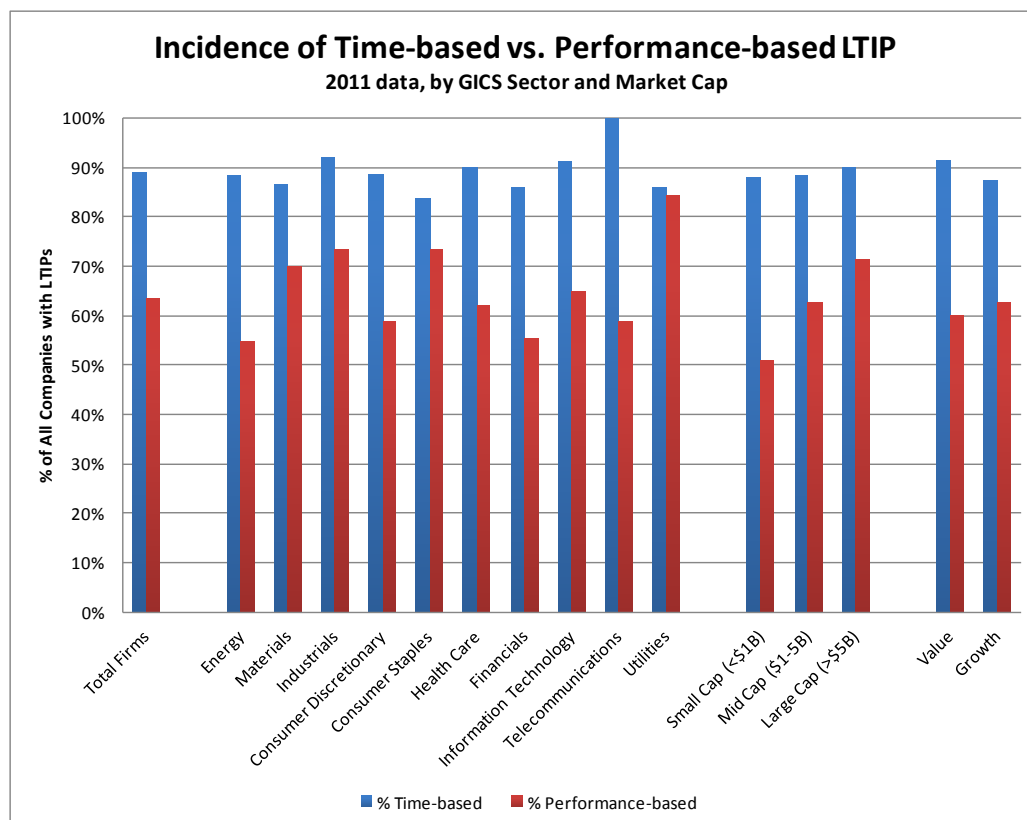


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5. **Diversification** – companies also see performance equity as a way to diversify risk by rewarding for long-term financial, strategic, and/or other performance factors, as well as stock price performance (which is captured by the equity vehicle itself)

As shown in the graph below, time-based equity is used by nearly all companies across all industries, sizes, and valuation premiums. In contrast, the use of performance-based equity varies considerably. Generally, companies in industries with more stable and predictable business models (e.g., Consumer Staples) and those in industries in which relative benchmarks can more readily be identified (e.g., Utilities) tend to make higher use of performance-based equity. However, there are some industries in which less emphasis is put on performance-based equity. Financial Services and Energy are two examples, but for different reasons. Financial Services traditionally has used equity as a way to reward for short-term performance that has already occurred. Energy, on the other hand, is heavily affected by commodity prices, and in these cases, performance-based equity may not be viewed as an effective incentive.

In the case of performance-based equity, size matters. Larger cap companies tend to make greater use of performance-based equity than smaller-cap companies. This likely is the case for two reasons: (1) it is generally easier to set long-term goals in larger, more mature environments, rendering performance-based equity a more effective incentive, and (2) investors are putting greater pressure on larger vs. smaller cap companies to strengthen their pay for performance alignment since large cap companies have such a disproportionate impact on the performance of their portfolios.



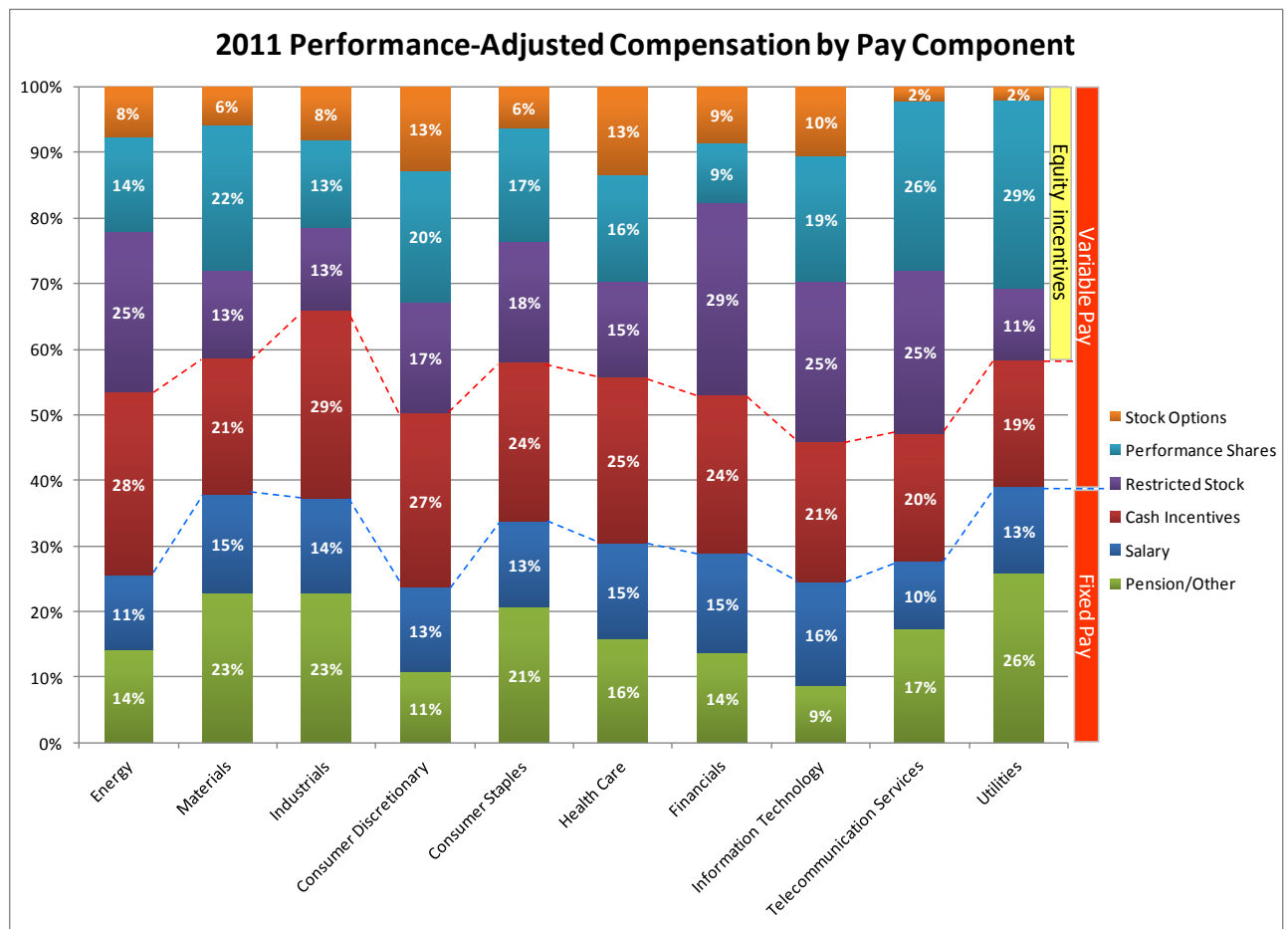




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### Pay Mix

As noted earlier, pay mix has been trending toward a greater use of equity LTI compensation. In addition, pay mix varies by industry. The heaviest users of equity LTI are the Information Technology and Telecommunications Industry Sectors, with over half of total compensation value delivered through equity vehicles. The lightest users of equity incentives are the Industrials, Materials, and Utilities Sectors, with less than 40% of total compensation value delivered through equity vehicles.

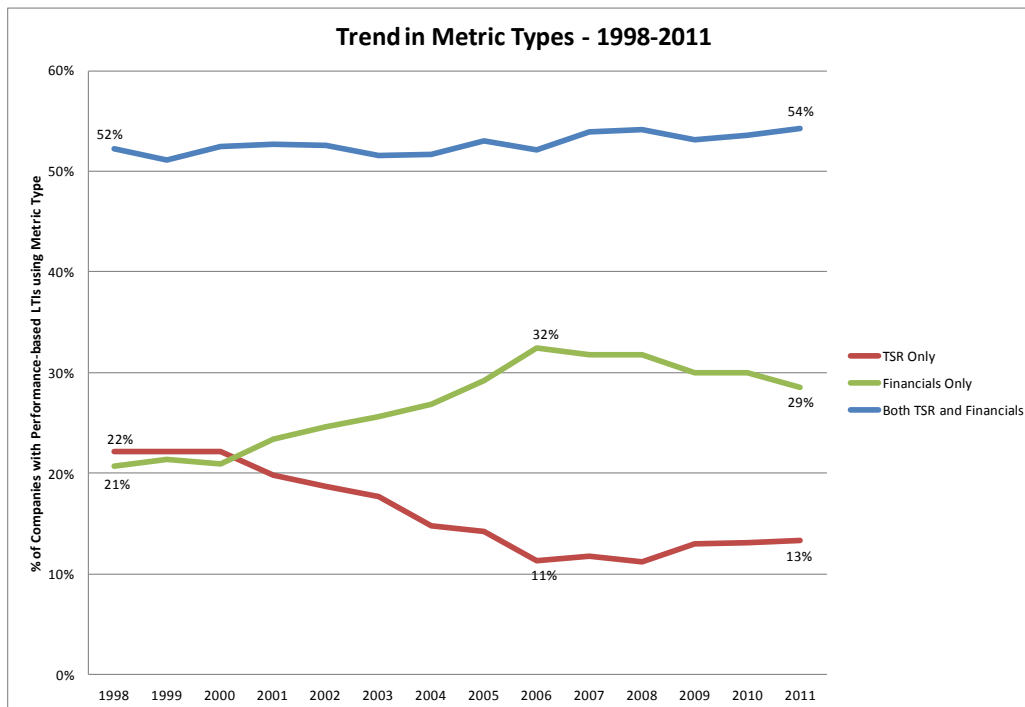




## Chapter II: Trends in Performance Metrics

### *Performance Metrics in Equity LTIs*

There are a variety of performance metrics used by companies in their equity LTI plans. Broadly speaking, these metrics can be categorized into three groups – TSR, Financial and Other. TSR and Financial metrics are the most common. As shown in the chart below, financial metrics (Earnings, Returns, Cash Flow, Revenues) increased in the first half on the last decade, then tailed off.

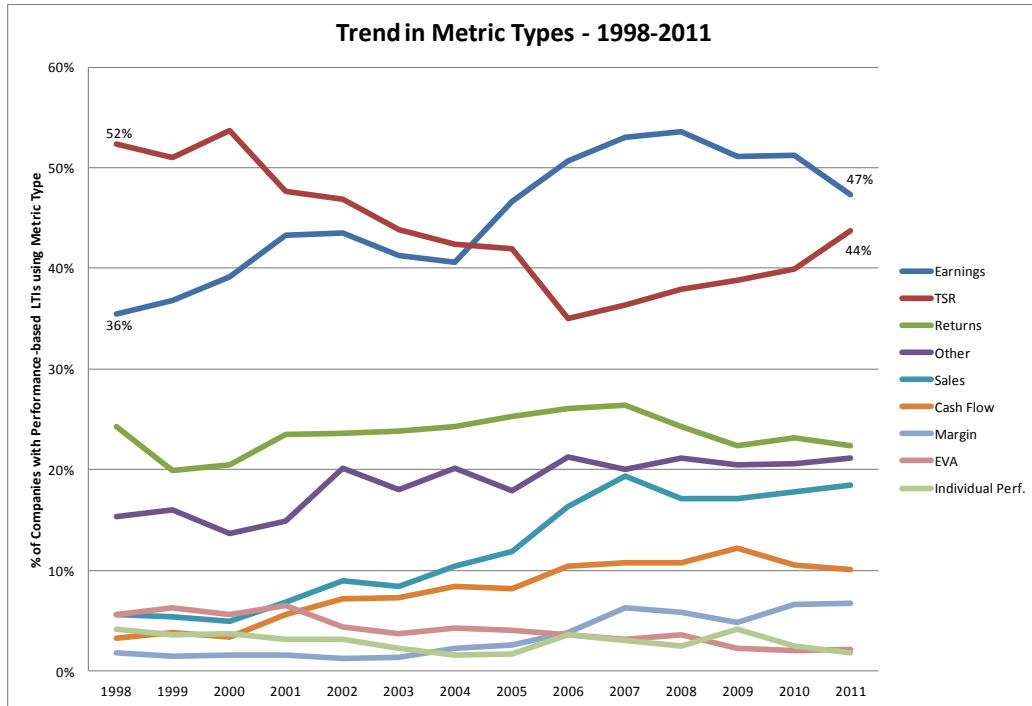


The most significant change in the metrics used in performance-based equity plans has been a decline in the use of TSR and a rise in the use of earnings-based metrics (see chart below.) Both TSR and earnings-related measures are currently tied for “first place,” each at about a 45% prevalence level. However, the prevalence of TSR measures is down from its high of 52% in the late ‘90s; and the prevalence of earnings-based measures is up from its low of 35%. This shift likely is due to the fact that companies have become more comfortable using earnings in performance-based equity plans. Most are eager to diversify their measurement system by combining financial and stock-based goals, and many feel as though they have greater control over earnings than stock price, which renders earnings a more motivational measure. The recent resurgence of TSR over the last 5 years (since the precipitous decline in the stock market) likely is because of pressure from investors to tie management more closely to shareholder returns.

Return on assets, equity, or invested capital is another perennially popular financial measure, hovering between 20% and 25% in prevalence over the last decade. Interestingly, sales once at only a 5% prevalence level in the early 2000’s, is now at nearly a 20% prevalence level, seeing almost as much usage as returns in equity LTIs.



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“Other” metrics often are more specific financial/accounting metrics, such as inventory levels, but also include non-financial, operational and other metrics, as summarized in the table below:

### Examples of “Other” Metrics

Common Category	% of "Other" <sup>(1)</sup>	Examples	
		General	Industry-Specific
Financial/Accounting	40%	Retained Earnings Working Capital	Net Earned Premiums (Insurance) Inventory Turn Ratio (Retail)
Non-Financial/Strategic	30%	Market Share Succession Planning	Product Design Recognition (Semiconductors) Product Quality (Capital Goods)
Operations	22%	Efficiency Productivity Gains	Incidence Rate (Capital Goods) Efficiency Ratio (Utilities)
Other	8%	Varies Varies	Integrity (Utilities) Approval of Strategic Plan (Semiconductors)

*(1) Estimated based on a detailed review of several industry groups*

In aggregate, “Other” metrics have been on the rise in recent years, probably because they tell a story about the specific strategic initiatives on which companies are focusing. Moreover, investors have made it clear that they appreciate a strong tie to the strategic priorities of the organization.

### Specific Financial Performance Metrics

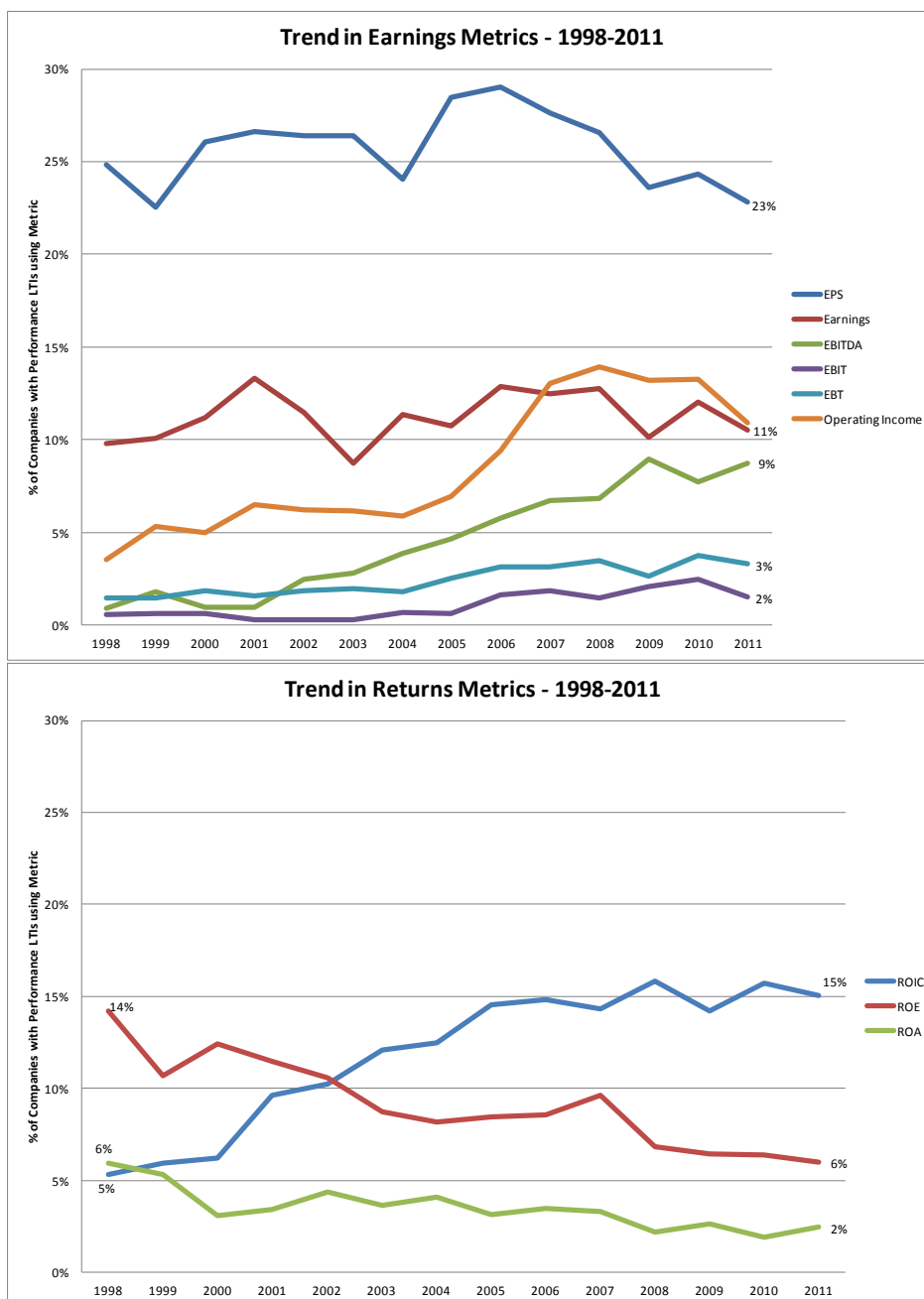
The following charts provide a more detailed look at trends in the use of specific metrics. We look at the trend in the two broadest categories of metrics, Earnings and Returns. In terms of earnings metrics, the



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prevalence of EPS has eroded over the last 5 years. This is because proxy advisors and investors do not view EPS favorably. They perceive EPS as being easily affected by the number of shares outstanding, and therefore easily controlled by only a few top executives. Instead, they prefer operating earnings measures, which tend to reflect the sustainable operating health of the business.

Return metrics have shifted from ROE towards ROA and ROIC, likely due to a concern that a focus on ROE can encourage companies to take on greater leverage, and therefore, risk. ROE has seen a decline in prevalence as companies have tried to control risk and ensure that executive compensation programs do not encourage excessive risk-taking in this era of Dodd-Frank legislation.

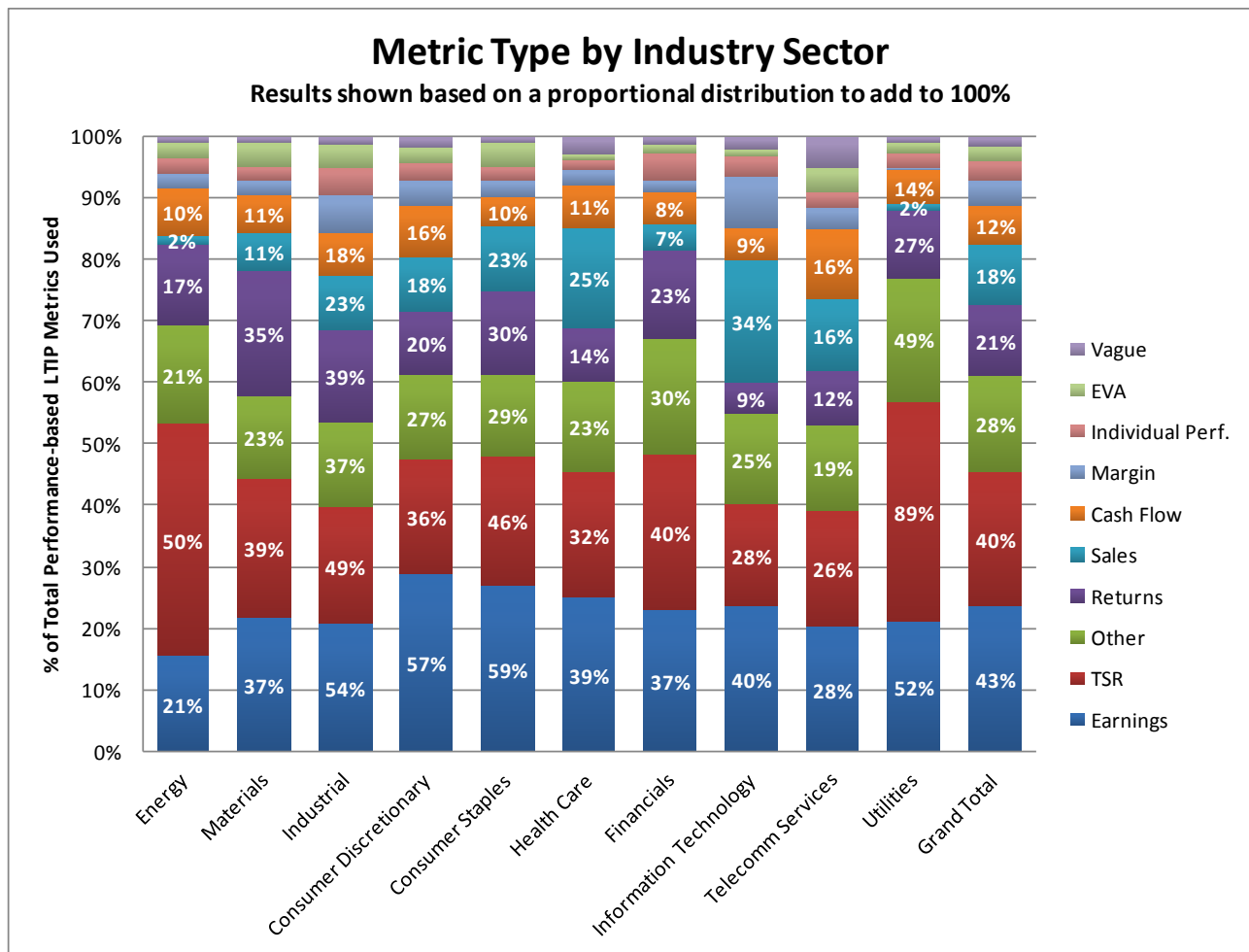




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### Performance Metrics by Industry, Size, and Valuation Premiums

The top two metric types – Earnings and TSR – are generally consistent across sectors. Financial Services and Information Technology are notable exceptions, with “Other” and Sales, respectively, being the most prevalent second metric types, as shown in the three charts below. Information Technology companies use Sales (i.e., top line growth) as a prevalent measure because these types of companies often are challenged to build market share quickly.



(Percentages set to 100%, to make the industry sectors comparable; companies can have multiple metrics)

As shown in the following summary table, TSR is well represented as a performance metric, with 9 of the 10 industry sectors having TSR as the first or second most prevalent metric.

### Rank of Metric Type by Industry Sector

Metric Type Rank	Energy	Materials	Industrial	Consumer Discretionary	Consumer Staples	Health Care	Financials	Information Technology	Telecomm Services	Utilities	Grand Total
First	TSR	TSR (tie)	TSR (tie)	Earnings	Earnings	Earnings	TSR	Earnings	TSR	TSR	Earnings
Second	Returns	Returns (tie)	Earnings (tie)	TSR	TSR	TSR	Other	Sales	Earnings (tie)	Earnings	TSR
Third	Other	Earnings	Returns	Returns	Sales	Sales	Earnings	TSR	Returns (tie)	Other	Returns

TSR

Earnings

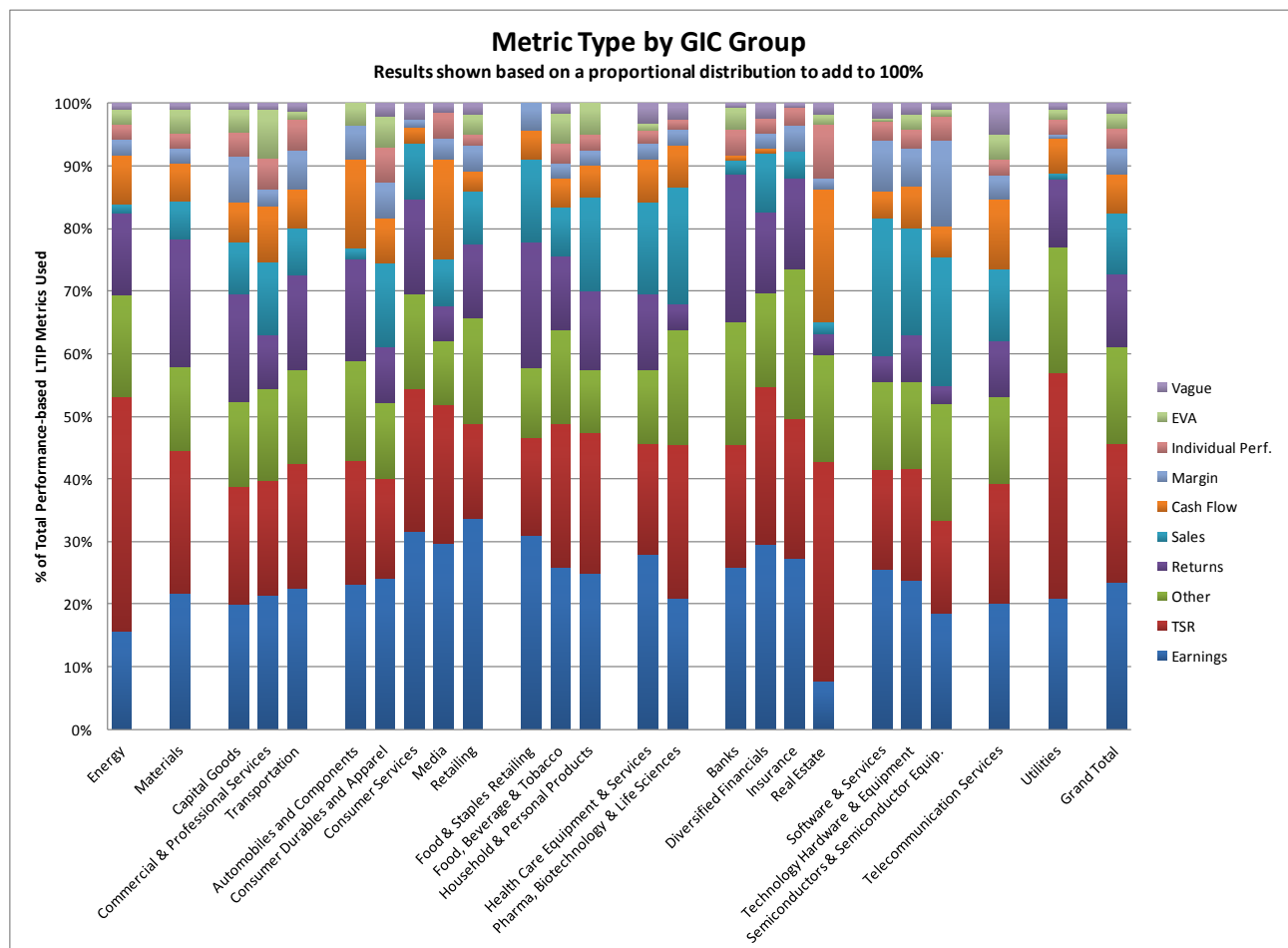
Returns



## Performance Metrics and Their Link to Value

To further explain any differences among industries, it is helpful to analyze the use of metrics at the Industry Group level, which breaks down the ten Industry Sectors into 24 Industry Groups. At this level, the reasons for the differences across industries become clearer. For example, the Financial Services Sector can be divided into four Industry Groups: Banks, Diversified Financials, Insurance, and Real Estate, as shown in the chart below. Companies within all Financial Services Groups, except Real Estate, focus on earnings, TSR, “Other,” and Return-based measures. Insurance companies focus on “Other” measures that usually include Book Value growth. Book Value growth, similar to ROE, measures the cumulative build-up of equity in the business, which is a good indicator of financial health.

Similarly, ROE also is a good financial measure for Banks, as Banks need to leverage their balance sheet with low-cost debt in order to earn a fair Return on Assets. Real Estate, however, is a different matter. Real Estate companies are characterized by a high usage of TSR and “Other” measures, typically Funds From Operations (FFO) or Adjusted Funds from Operations (AFFO). FFO is defined as Earnings before Depreciation and Amortization, less gains on depreciable property sales. This measure makes sense for Real Estate businesses since property rarely loses its value. AFFO goes a step further in that it subtracts out capital expenditures required to maintain the properties. As a result, FFO and AFFO are better measures of sustainable operating performance than Earnings for Real Estate businesses.





## Performance Metrics and Their Link to Value

A more specific look at this data set is contained in the tables below. Each table shows the top five metrics used by companies in each of the 24 Industry Groups. Industry Groups are organized within the broader Industry Sectors by row. The “%” column indicates the percentage of companies that use each metric among those which have performance-based equity plans. The percentage numbers sum to more than 100% since companies use multiple metrics in their equity LTI plans.



# Performance Metrics and Their Link to Value

## Most Commonly Used Equity LTI Performance Metrics, Overall and by Industry Group Organized Within Industry Sectors

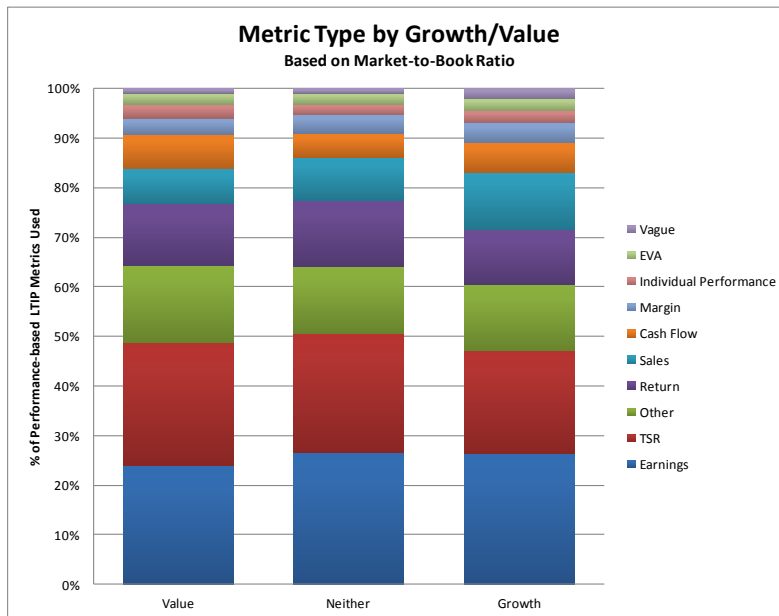
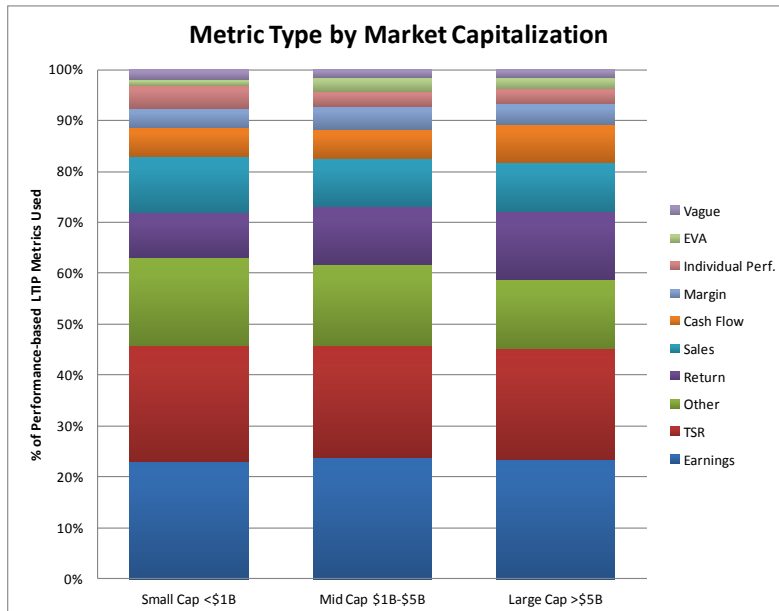
	<b>Grand Total</b>				<b>Common Metric Key</b>	
	<b>Metrics</b>	<b>% of Co's</b>			<b>TSR</b>	
Single-Group Sectors	TSR	40%			<b>Earnings</b>	
	Other	26%			<b>Returns</b>	
	EPS	25%				
	Sales	18%				
	Operating Income	17%				
Energy	<b>Metrics</b>	<b>% of Co's</b>	<b>Materials</b>		<b>Telecommunication Services</b>	
	TSR	50%	<b>Metrics</b>	<b>% of Co's</b>	<b>Metrics</b>	<b>% of Co's</b>
	Other	21%	TSR	39%	TSR	26%
	ROIC	14%	EPS	22%	Other	19%
	Cash Flow	10%	ROIC	26%	EBITDA	18%
Utilities	Operating Income	8%	Other	21%	Sales	16%
			Earnings	12%	Cash Flow	16%
Capital Goods	<b>Metrics</b>	<b>% of Co's</b>	<b>Commercial &amp; Prof Services</b>		<b>Transportation</b>	
	TSR	51%	<b>Metrics</b>	<b>% of Co's</b>	<b>Metrics</b>	<b>% of Co's</b>
	Other	36%	TSR	43%	TSR	52%
	EPS	35%	EPS	36%	ROIC	35%
	ROIC	25%	Other	34%	Other	32%
Industrial	Sales	26%	Sales	27%	Earnings	29%
			ROIC	20%	EPS	26%
Automobiles and Components	<b>Metrics</b>	<b>% of Co's</b>	<b>Consumer Durables &amp; Apparel</b>		<b>Consumer Services</b>	
	TSR	48%	<b>Metrics</b>	<b>% of Co's</b>	<b>Metrics</b>	<b>% of Co's</b>
	Cash Flow	35%	EPS	52%	TSR	34%
	ROIC	30%	TSR	50%	EPS	26%
	Other	30%	Sales	42%	Other	19%
Consumer Discretionary	Earnings	30%	Other	36%	ROIC	15%
			Operating Income	34%	Earnings	15%
Food & Staples Retailing	<b>Metrics</b>	<b>% of Co's</b>	<b>Food, Beverage &amp; Tobacco</b>		<b>Household &amp; Personal Pdt's</b>	
	ROIC	35%	<b>Metrics</b>	<b>% of Co's</b>	<b>Metrics</b>	<b>% of Co's</b>
	EPS	35%	TSR	50%	TSR	56%
	TSR	30%	EPS	50%	Sales	38%
	Sales	26%	Other	33%	Operating Income	38%
Consumer Staples	Earnings	22%	ROIC	24%	ROIC	31%
			Operating Income	22%	EPS	31%
Health Care Equip & Services	<b>Metrics</b>	<b>% of Co's</b>	<b>Pharma, Biotech &amp; Life Sci</b>			
	EPS	33%	<b>Metrics</b>	<b>% of Co's</b>		
	TSR	30%	TSR	34%		
	Sales	25%	Other	26%		
	Other	17%	Sales	26%		
Health Care	Earnings	14%	EPS	20%		
			Earnings	15%		
Banks	<b>Metrics</b>	<b>% of Co's</b>	<b>Diversified Financials</b>		<b>Insurance</b>	
	EPS	33%	<b>Metrics</b>	<b>% of Co's</b>	<b>Metrics</b>	<b>% of Co's</b>
	ROE	31%	TSR	39%	Other	43%
	TSR	27%	EPS	27%	TSR	42%
	Other	25%	Other	23%	EPS	29%
Financials	Earnings	13%	ROE	18%	Operating Income	28%
			Earnings	16%	ROE	26%
Software & Services	<b>Metrics</b>	<b>% of Co's</b>	<b>Tech Hardware &amp; Equipment</b>		<b>Semiconductors &amp; Equipment</b>	
	Sales	33%	<b>Metrics</b>	<b>% of Co's</b>	<b>Metrics</b>	<b>% of Co's</b>
	TSR	24%	TSR	34%	Sales	40%
	EPS	20%	Sales	32%	Other	36%
	Operating Income	18%	Other	25%	TSR	30%
Information Technology	Other	17%	EPS	22%	Operating Income	28%
			Operating Income	21%	Earnings	23%
Real Estate	<b>Metrics</b>	<b>% of Co's</b>				
	TSR	58%				
	Funds From Oper.	32%				
	Other	25%				
	Individual	14%				
Real Estate	Operating Income	6%				





## Performance Metrics and Their Link to Value

While we see differences in the use of metrics by Industry Sector and Group, in contrast, we do not see near as many differences by company size or valuation premiums, as shown in the charts below. On the margin, however, large cap companies tend to use Returns more frequently than small cap companies, and small cap companies tend to use Sales more often than mid to large cap companies. Similarly, TSR is used more frequently by companies with lower valuation premiums, while Sales is used more frequently by companies with higher valuation premiums.



In summary, it is clear that Industry Group, as an indicator of business model, has a more significant impact on metric selection than company size or valuation premiums, at least across the universe of companies contained in this study. Given our earlier discussion of why companies in certain industries tend to rely on different metrics, these patterns make intuitive sense.

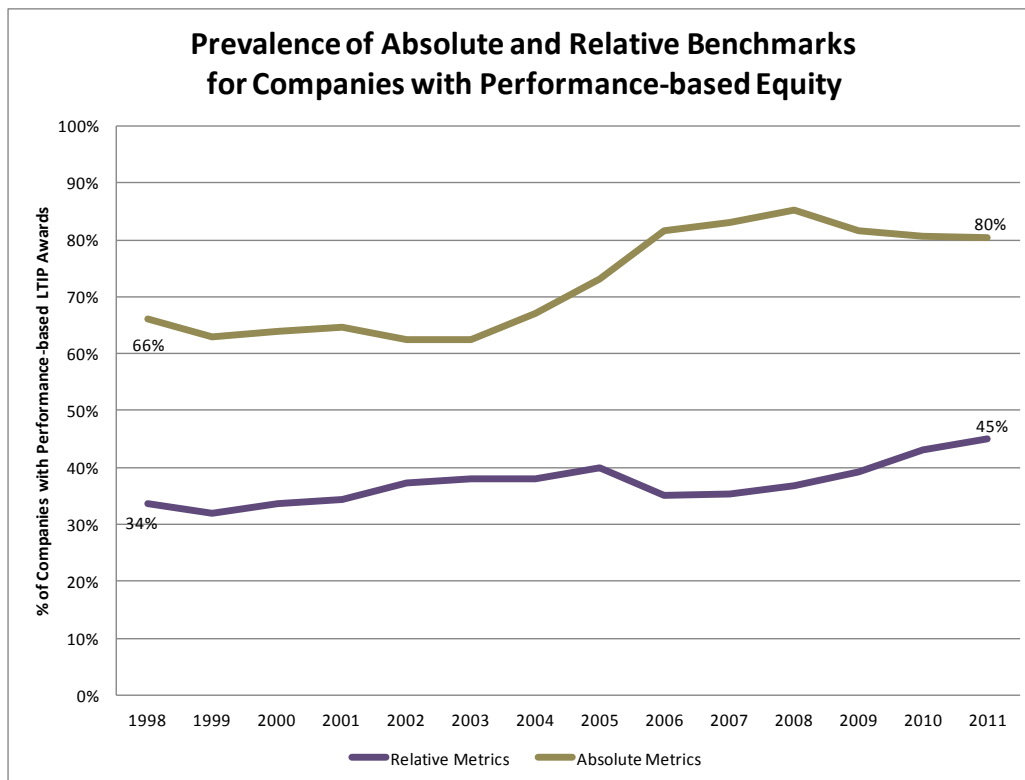


### Chapter III: Trends in Relative vs. Absolute Benchmarks

#### *Absolute and Relative Performance Benchmarks*

Investors evaluate their portfolio companies on the basis of both absolute and relative TSR. Companies often debate whether to pay their executives on the basis of absolute or relative performance, or both, where absolute performance is measured on the basis of internal goals, usually an internal plan or standard, and relative performance is measured against an externally-derived benchmark, such as a peer group, an index, the company's cost of capital, or other benchmark.

As shown in the chart below, absolute benchmarks tend to be more widely used than relative benchmarks. Today, 80% of companies with performance-based equity plans use absolute measures and just under half use relative measures. (These numbers sum to over 100% since some companies use both absolute and relative measures in their equity plans.) The recent increase in the use of relative benchmarks is due to the influence of proxy advisors and investors as advocates of relative measures.



A compelling case can be made for using either absolute or relative measures. The appropriateness of using each often depends upon the unique circumstances of each company, as shown in the chart below. But perhaps the primary explanation for using absolute measures is that they provide a greater focus on specific performance outcomes, and therefore, have greater motivational value for use in incentive plans.



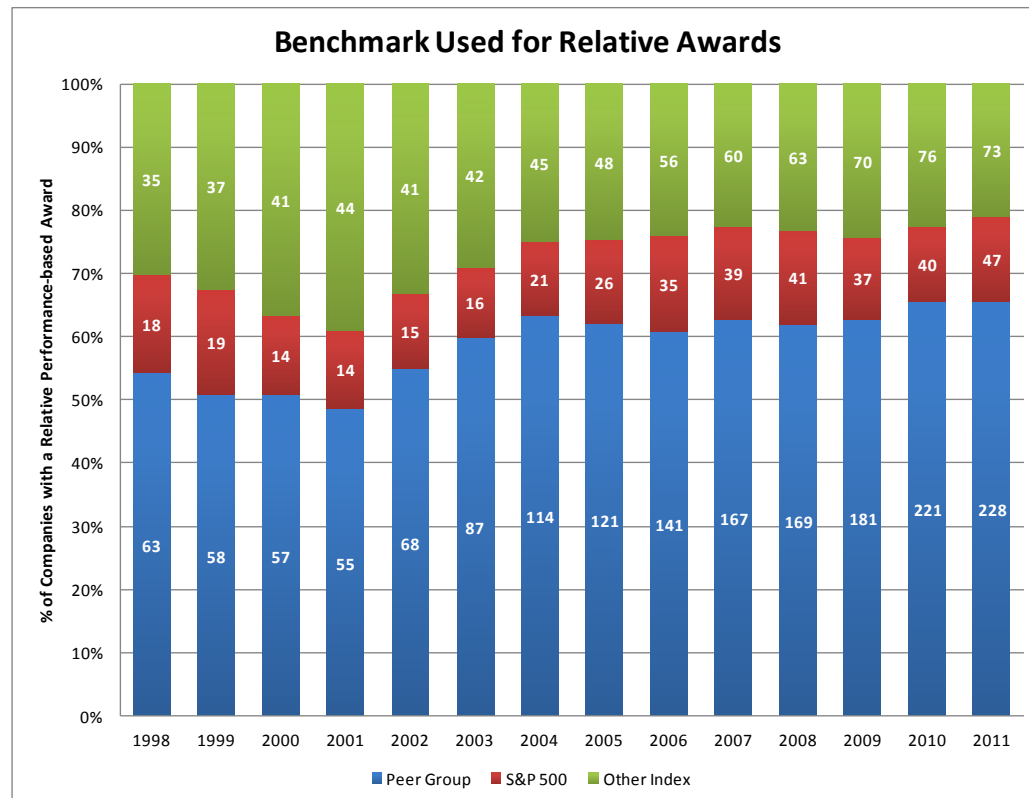
# Performance Metrics and Their Link to Value

## Absolute vs. Relative Benchmarks

	Absolute Benchmarks	Relative Benchmarks
Definition	▪ Benchmark based on internal plans or standards	▪ Benchmarks based on external references, such as a peer group, index, or the cost of capital
When To Use	▪ Companies with robust goal-setting processes ▪ Companies for which long-term standards of performance have been developed and are accepted and understood ▪ Companies focused on specific longer-run outcomes	▪ Companies with credible peer sets ▪ Companies subject to external uncontrollable variables, like commodity prices or economic cycles ▪ Companies not more or less volatile than peer set
Advantages	▪ Serves as a good focusing and communication tool ▪ Can be tailored to the unique requirements of the business ▪ Is motivational and highly relevant to management	▪ Achieves better pay for performance alignment over time ▪ Forces competitive awareness ▪ Does not force public disclosure of internal information
Disadvantages	▪ Requires organization to set longer-term goals, which can be challenging, particularly in volatile or uncertain environments	▪ Can give false readings on performance if volatility is different from comparator set

### Comparisons Used for Relative Benchmarks

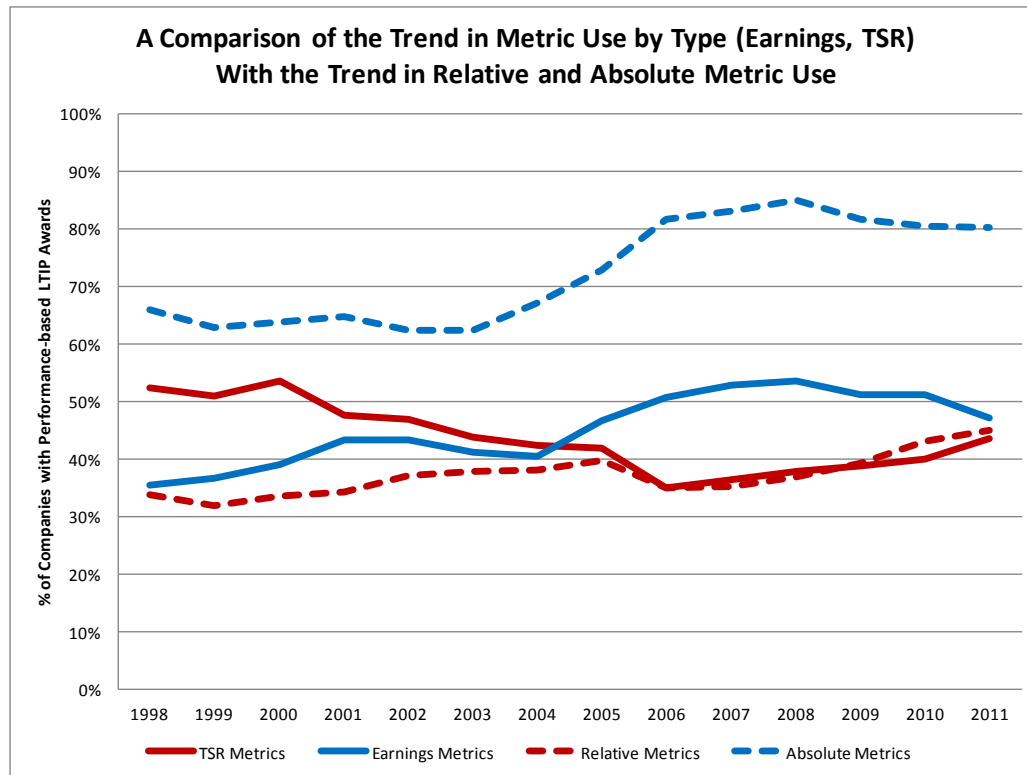
The comparisons used for relative benchmarks have been trending toward a greater use of peer groups vs. broad indices or other comparative benchmarks. Today, approximately two-thirds of companies with performance-based equity plans use peer groups for performance comparisons, while one-third use the S&P 500 index or other external benchmark. The trend toward peer groups is probably due to the fact that companies expend considerable effort identifying credible peers that are representative of the company's business model and are subject to the same externalities as the company. It is worth noting that many organizations use the companies in a particular index, rather than the index itself, in order to more easily derive the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles for purposes of benchmarking performance.





## Performance Metrics and Their Link to Value

As suggested in the graph below, which superimposes the prevalence of TSR and Earnings metrics onto the prevalence of relative and absolute benchmarks, a relative benchmark is most often used with TSR measures, and an absolute benchmark (like a financial plan or a growth standard) is most often used with Earnings measures.



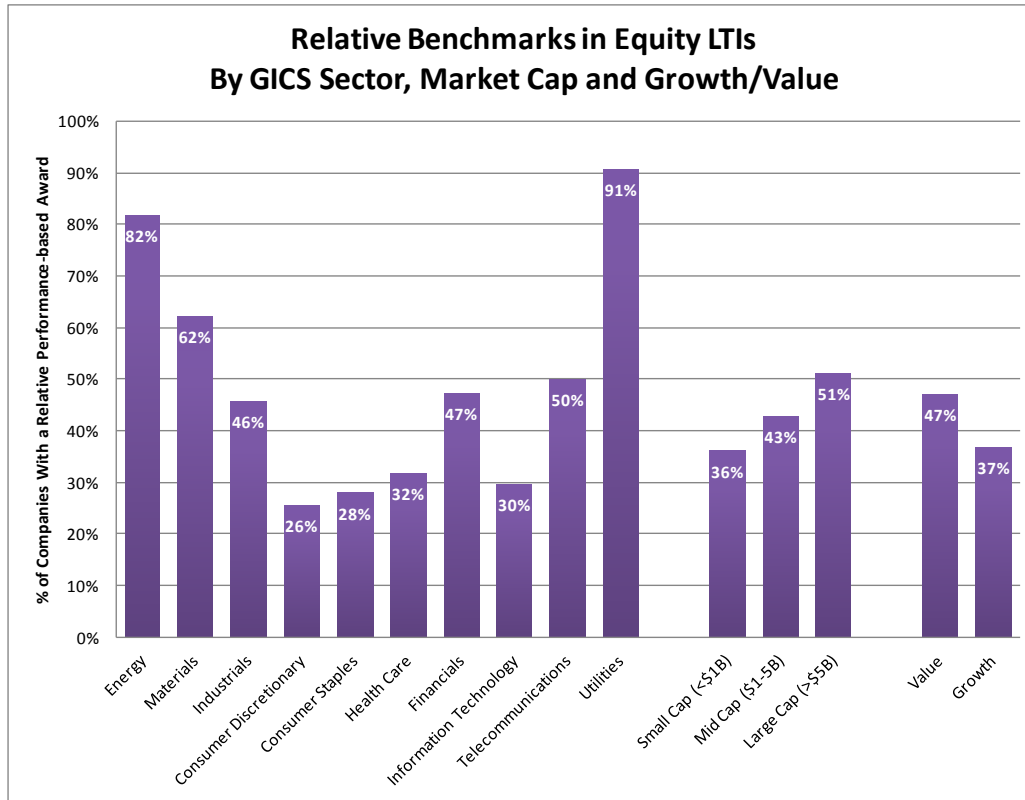
The trend in the increase in the use of relative metrics is related to the trend in the type of metrics used in recent years. As noted in the chart below, as TSR use has increased, the use of relative metrics showed nearly identical rise. Concurrently, the drop in the use of earnings metrics mirrors the decline in absolute metric use.

### *Relative Performance-based Equity LTIs by Industry, Size, and Valuation Premium*

As shown in the chart below, the use of relative benchmarks varies significantly across industries, and also by company size and valuation premiums. About half of large cap companies use relative benchmarks compared to 36% for small cap companies; companies with low valuation premiums (47%) are more likely to use relative benchmarks than those with high valuation premiums (36%). This makes sense since smaller, high value, companies likely need to support their valuation premiums with more aggressive, internally generated standards compared to the standards that would be set using external references.



## Performance Metrics and Their Link to Value



The use of TSR and relative benchmarks also is evident by industry. For example, as shown in the chart below, companies in the Utilities Sector often use relative TSR in their equity LTIs since most are able to find a robust set of credible peers, and TSR is a comprehensive measure that takes short- and long-term considerations into account. Energy companies often use relative benchmarks in order to strip out the effects of commodity prices on performance, something that they cannot control. In contrast, companies in the Consumer Discretionary Sector are more likely to rely on absolute measures, often in recognition of their unique business models and/or growth characteristics.



### Chapter IV: Metrics Most Correlated with TSR

The increased use of performance-based LTIs makes it more important than ever for companies to select appropriate performance metrics, i.e., metrics that correlate to shareholder value and align executives with shareholder interests. To determine which financial measures have the greatest impact on shareholder value, we tested the correlation of various financial measures to value for each of the 24 Industry Groups. For ease of presentation, we grouped the measures into five measurement categories as follows:

1. **Earnings Growth** – 3-year compound annual growth rates (CAGR) for Net Income, various definitions of Operating Income, and Earnings Per Share (EPS)
2. **Revenue Growth** – 3-year compound annual growth rate (CAGR) for Revenue
3. **Returns** – ROA, ROIC, ROE, and other measures (Operating and Net, but before Extraordinary Items) that were divided by Assets. Returns can be important in that they take the investment, i.e., the balance sheet, into account
4. **Cash Flow** – Operating Cash Flow minus Capital Expenditures, measured either in terms of growth or in terms of return (i.e., divided by assets). Cash Flow is important because it takes investment, i.e., CapEx, into account
5. **Earnings Margins** – various Earnings measures (with combinations of Earnings before and after Depreciation, Amortization, Interest, and Taxes – e.g., EBITDA), divided by Sales

We ranked the five categories of measures above from 1 to 5 for each Industry Group based upon which measures have the greatest influence on TSR, as indicated by their correlation to value. Correlation coefficients can range from -1.00 to 1.00, with positive numbers indicating a positive correlation – the higher the number, the stronger the correlation. 1.00 is a perfect positive correlation; 0.00 is no correlation; and -1.00 is a perfect negative correlation. We counted measures with correlation coefficients of  $\geq .25$  that also were statistically significant.

The table on the following page serves as a “quick guide” to indicate on which measures companies in a given industry might focus. It shows the rank order of the correlations for each measurement category by Industry Group, as well as the correlation coefficient that corresponds to how well each measure is correlated with shareholder value in that Industry Group. In some cases, there were ties in the rankings of metric types. Ranges of correlation coefficients are shown when more than one measure in the category (e.g., both Net Income and Operating Income Growth) had a good correlation to value. Comments are provided for each Industry Group to add insight.



# Performance Metrics and Their Link to Value

## Correlation of Measures of Performance to TSR - 1998 – 2011

GICS Sector/Industry Group	Earnings Growth		Revenue Growth		Returns		Cash Flow		Earnings Margins		Comments
	Rank	Correlation	Rank	Correlation	Rank	Correlation	Rank	Correlation	Rank	Correlation	
Energy	2	.29 - .32			1	.31 - .36			3	.21 - .23	<ul style="list-style-type: none"> <li>Overall, Industry Group has low correlations</li> <li>ROIC has the strongest correlation among Return measures</li> <li>Margin measures have a stronger correlation net of depreciation (i.e., counting depreciation charges)</li> </ul>
Materials	1	.44 - .51	2	.43	3	.29 - .42	4	.39	5	.30 - .33	<ul style="list-style-type: none"> <li>ROA has strongest correlation among Return measures</li> </ul>
Industrials											
Capital Goods	1	.46 - .53	2	.39	3	.32 - .35	5	.30	4	.33	<ul style="list-style-type: none"> <li>ROA has strongest correlation among Return measures</li> <li>Margin measures have a stronger correlation net of depreciation</li> </ul>
Commercial & Professional Svcs	1	.45 - .53	2	.38					3	.26 - .29	<ul style="list-style-type: none"> <li>Margin measures are strong both before and after depreciation</li> </ul>
Transportation	2	.35 - .43			1	.48 - .57	4	.28 - .33	3	.27 - .36	<ul style="list-style-type: none"> <li>All 3 Returns measures have high correlation; ROIC has the highest use</li> </ul>
Consumer Discretionary											
Automobile and Components	1	.43 - .59	3	.43	2	.30 - .45	4	.35			<ul style="list-style-type: none"> <li>ROE has stronger correlation among Return measures indicating some tolerance for leverage</li> </ul>
Consumer Durables & Apparel	1	.58 - .67	2	.66	4	.46 - .55			3	.57	<ul style="list-style-type: none"> <li>Margin measures are strong both before and after depreciation</li> <li>ROE has low correlation suggesting low tolerance for leverage</li> <li>Revenue Growth plays a role in shareholder value</li> </ul>
Consumer Services	1	.56 - .58	2	.31	4	.23 - .26			3	.28	<ul style="list-style-type: none"> <li>Margin measures have a stronger correlation net of depreciation</li> </ul>
Media	1	.30 - .36					2	.30			<ul style="list-style-type: none"> <li>Industry Group has poor correlations, possibly because of diverse companies</li> <li>Cash Flow Margins show solid correlations</li> <li>Operating Income growth plays a role in shareholder value</li> </ul>
Retailing	1	.56 - .68	2	.49	3	.30 - .41			4	.31 - .36	<ul style="list-style-type: none"> <li>ROA and ROIC are equally strongly correlated to TSR, ROE less so</li> <li>Margin measures are strong both before and after depreciation</li> </ul>
Consumer Staples											
Food & Staples Retailing	1	.52 - .60	4	.37	3	.30 - .39	2	.55	5	.28 - .35	<ul style="list-style-type: none"> <li>Margin measures are strong both before and after depreciation</li> <li>ROE is negatively correlated, suggesting the importance of operating the business well, as opposed to leveraging the balance sheet</li> </ul>
Food, Beverage & Tobacco	1	.51 - .61	2	.50	3	.28					<ul style="list-style-type: none"> <li>Revenue Growth plays a role in shareholder value</li> </ul>
Household & Personal Pdts	4	.54 - .63	5	.61	2	.55 - .65	1	.52 - .68	3	.31 - .64	<ul style="list-style-type: none"> <li>Capital expenditures is important</li> <li>Margin measures are strong both before and after depreciation</li> <li>ROE is negatively correlated, suggesting no value for leverage</li> <li>Revenue growth plays a role in shareholder value</li> </ul>
Health Care											
Health Care Equipment & Svcs	1	.41 - .51	2	.34	3	.28					<ul style="list-style-type: none"> <li>Growth measures are of greatest importance</li> </ul>
Pharma, Biotech & Life Science	1	.39 - .46	2	.24							<ul style="list-style-type: none"> <li>Overall, Industry Group has low correlations, possibly because of the diversity of companies represented</li> </ul>
Financials											
Banks	1	.39 - .41									<ul style="list-style-type: none"> <li>Overall, Industry Group has low correlations</li> <li>ROE correlates well to Market-to-Book value</li> </ul>
Diversified Financials	1	.41 - .49	3	.36	3	.28 - .36			2	.25 - .38	<ul style="list-style-type: none"> <li>Net Margins are important (efficiency vs. top line growth)</li> </ul>
Insurance	2	.24 - .41			1	.39 - .51	3	.38			<ul style="list-style-type: none"> <li>ROE has stronger correlation among return measures indicating some tolerance for leverage</li> </ul>
Real Estate	1	.29 - .33					1	.29 - .33			<ul style="list-style-type: none"> <li>Growth in Operating Cash Flow (Funds From Operations) plays a role</li> <li>Overall, Industry Group has low correlations</li> </ul>
Information Technology											
Software & Services	3	.35 - .41	1	.46			3	.35 - .41	1	.36 - .46	<ul style="list-style-type: none"> <li>Margin measures are strong both before and after depreciation</li> <li>Capital expenditures are important</li> </ul>
Tech Hardware & Equipment	1	.41 - .52	2	.48	4	.23 - .46	2	.24 - .48	5	.35 - .42	<ul style="list-style-type: none"> <li>Revenue and Earnings Growth play a role in shareholder value</li> </ul>
Semiconductors	3	.34 - .38	4	.34	2	.25 - .45	1	.41 - .49	5	.22 - .32	<ul style="list-style-type: none"> <li>Cash Flow Return measures show strong correlation; indicating importance of CapEx</li> </ul>
Telecommunication Services	4	.23 - .36			3	.32 - .37	2	.42 - .44	1	.31 - .54	<ul style="list-style-type: none"> <li>Margins and Cash Flow Return measures are important before and after depreciation</li> <li>Capital expenditures are important</li> </ul>
Utilities	1	.22 - .29			2	.27			3	.23 - .24	<ul style="list-style-type: none"> <li>Overall, Industry Group has low correlations</li> </ul>



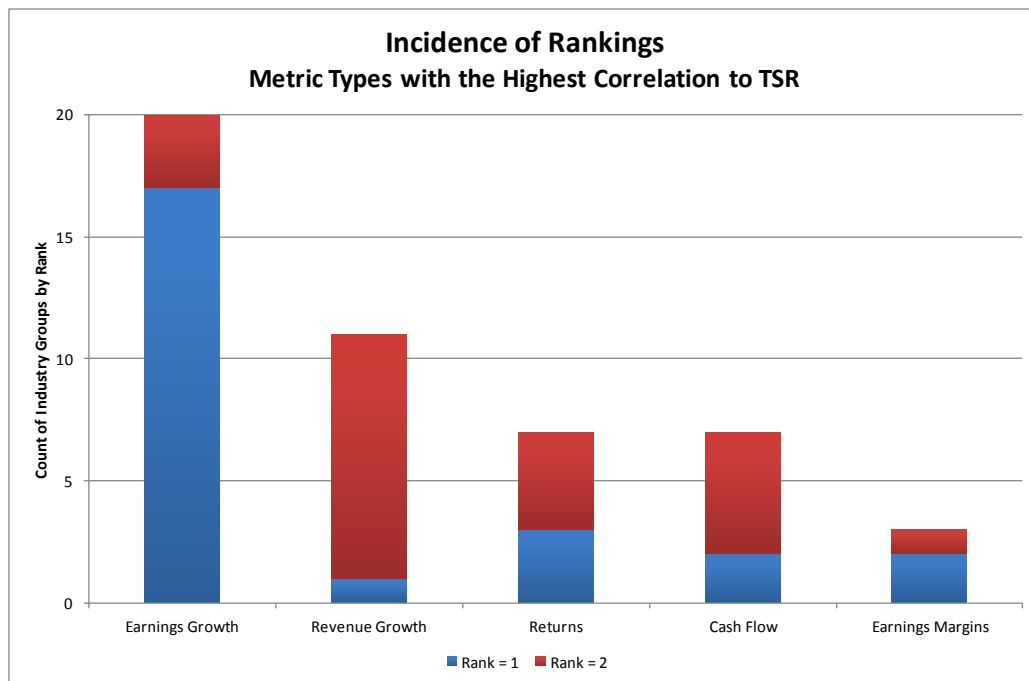
## Performance Metrics and Their Link to Value

### Summary Incidence of Rankings

Rank	Earnings Growth	Revenue Growth	Returns	Cash Flow	Earnings Margins
1	17	1	3	3	2
2	3	10	4	4	1
3	2	2	8	2	7
4	2	2	3	3	2
5	0	1	0	1	4
None	0	8	6	11	8
TOTAL	24	24	24	24	24

A number of insights can be gleaned from this analysis:

- First, as shown in the graph below, **Earnings Growth measures have the strongest correlation to value (TSR)**. Earnings Growth was ranked #1 in 17 of the 24 industry groups (with one tie). It was not unusual to see all three Earnings Growth metrics that were tested – EPS, Net Income and Operating Income – near or at the top of the correlation results. Revenue Growth was often the second most highly correlated metric.



- Second, **certain Industry Groups have significantly higher or lower correlation results overall**, as summarized in the following table (which is based on the industries with the overall highest and lowest correlation coefficients). Some of these groups, like Pharmaceuticals, Biotechnology & Life Sciences, are comprised of very different businesses. It is fair to say that correlation analysis is best conducted on a well-constructed peer set of similar companies. The more disparate the peer set,





## Performance Metrics and Their Link to Value

the more likely that the correlations will be poor. Poor correlations also likely are due to the fact that financial measures do not necessarily do a good job of predicting value in certain types of companies, such as early stage life sciences companies

Highest Overall Correlations (8)	Lowest Overall Correlations (5)
Transportation	Energy
Automobiles & Components	Media
Consumer Services	Pharmaceuticals, Biotechnology & Life Sciences
Consumer Durables and Apparel	Banks
Retailing	Real Estate
Food & Staples Retailing	Utilities
Food, Beverage & Tobacco	
Household & Personal Products	

- Third, **measurement definitions are important**. For example, ROE (or Book Value growth) vs. ROA/ROIC has a high correlation to value in some industries, like Insurance, but not in others, such as Household and Personal Products. This suggests that prudent leverage earns a premium to value in some industries (e.g., Insurance), but imposes a discount to value in others. (We have noted where such differences exist in the Comments section to the table on page 33.) This likely is due to the fact that leverage is critical to the business model in certain industries, like Banks, but is not critical to the business model in other industries. In fact, if leverage is too high in those other industries, like Household and Personal Products, it only introduces greater risk
- Finally, **many industries have a number of metrics to choose from** when looking to support shareholder value. Half of the 24 industries have at least three metric categories with strong correlations. Six industries (i.e., Materials, Capital Goods, Food & Staples Retailing, Household & Personal Products, Technology Hardware & Equipment, and Semiconductors and Semiconductor Equipment) have all five metric categories to choose from. On the other hand, four industries (i.e., Media, Pharmaceuticals, Biotechnology & Life Sciences, Banks, and Real Estate) have only one or two metric categories to choose from. Industries with weak correlation results or a limited set of metrics to choose from could benefit from using TSR directly as a valid metric



## Performance Metrics and Their Link to Value

### Chapter V: The Extent to Which Companies Are Using Metrics That Best Correlate with TSR

The ultimate question, of course, is whether companies are in fact using measures of performance that correlate to value. While TSR (usually relative TSR) is measured directly in many LTI compensation plans, companies have increasingly gravitated toward the use of absolute financial metrics in equity LTI plans. The question is: “Have they chosen those metrics wisely?”

The table below shows a comparison between the rank order of the prevalence of metrics used and the rank order of which metrics correlate most closely to shareholder value. It also shows the level to which each industry ties its equity LTIs directly to TSR. Some industries link at least 50% of their equity LTIs directly to TSR. These industries include: Utilities (89%); Real Estate (58%); Household & Personal Products (56%); Transportation (52%); Capital Goods (51%); Energy (50%); Consumer Durables and Apparel (50%); and Food, Beverage and Tobacco (50%).

As indicated in the table below, some industries demonstrate a clear alignment between the metrics most frequently used in LTI equity plans and shareholder value. Half of the 24 Industry Groups show solid to strong alignment in that the metrics used most often also are those that best correlate to value. The other half could benefit from some improvement. It is important to note that these statements do not apply to individual companies. Rather, they point more generally to those industries in which improvement opportunities might exist.

Strength of Alignment - Performance Metrics vs. TSR		
Good (12)	Moderate (8)	Weak (4)
Energy	Transportation	Telecommunications
Materials	Consumer Services	Food & Staples Retailing
Capital Goods	Media	Pharma, Biotech & Life Sciences
Commercial & Prof Svcs	Household & Personal Products	Semiconductors
Automobiles & Components	Banks	
Consumer Durables & Apparel	Insurance	
Retailing	Real Estate	
Food, Beverage & Tobacco	Software & Services	
Health Care Equipment		
Diversified Financials		
Technology Hardware & Equip		
Utilities		



## Performance Metrics and Their Link to Value

More specifically, the use of metrics (ranked from highest (=1) to lowest prevalence), compared to the correlation of metrics (ranked from highest (=1) to lowest correlated), for each Industry Group is shown in the table on the following page. The best matched industries in terms of use/correlation are shown in green; the weakest matched industries are shown in red; and the ones in the middle are shown in yellow.

In order to earn a Good (green) rating, companies in the Industry Group had to most often use the highest correlated metrics, or if the correlations were poor, had to have a high prevalence of direct TSR usage. For example, Consumer Durables and Apparel companies use Earnings Growth and Revenue Growth most often, which also are most highly correlated to value. Measures for Utility companies have an overall poor correlation to value, but these companies compensate for those poor correlations by using TSR as a direct measure of value.

In order to garner a Weak (red) rating, companies in the Industry Group needed to most often use measures that were not the most highly correlated to value, and/or if the correlations were poor, did not make significant use of TSR as a direct measure of value. For example, Telecommunications Services uses Earnings Growth most often, but efficiency measures like Margins and Free Cash Flow are better indicators of value. In addition, only 26% of companies in the Telecommunications industry use TSR as a direct measure of value. Measures in Pharmaceuticals, Biotechnology & Life Sciences have an overall low correlation to value, and only 34% of these companies use TSR as a direct measure of value.

Those industries rated as Moderate (yellow) had a less serious mismatch between metrics usage and correlation, coupled with moderate prevalence (i.e., between 34% and 49%) in the use of TSR.



## Performance Metrics and Their Link to Value

### Relationship of Metrics Used in Equity LTIs vs. Those That Best Correlate with TSR - 1998 and 2011

Single-Group Sectors	Energy		Materials		Telecom Services		Utilities	
	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	2	1	1	1	4	1	1
Revenue Growth			3	2	2			
Returns	1	1	2	3	4	3	2	2
Cash Flow	3		3	4	2	2	3	
Earnings Margins		3		5		1		3
TSR Prevalence	50%		39%		26%		89%	

#### Improvement Opportunities

- Increase focus on Margins, FCF (CapEx), and TSR

#### Other Comments

- High direct use of TSR
- Growth metrics need to recognize length of commodity cycles
- Low direct use of TSR
- Very high direct use of TSR

Industrials	Capital Goods		Comm'l & Prof Svcs		Transportation	
	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	1	1	1	1	2
Revenue Growth	3	2	2	2	3	
Returns	2	3	3		2	1
Cash Flow	5	5	3		4	4
Earnings Margins	4	4		3	4	3
TSR Prevalence	51%		43%		52%	

#### Improvement Opportunities

- Could also increase focus on revenue growth
- Increase focus on Returns

#### Other Comments

- High direct use of TSR
- High direct use of TSR

Consumer Discretionary	Auto & Components		Cons Dur & Apparel		Consumer Svcs		Media		Retailing	
	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	1	1	1	1	1	1	1	1	1
Revenue Growth		3	2	2	3	2	3		3	2
Returns	2	2	3	4	2	4			2	3
Cash Flow	3	4	4				2	2		
Earnings Margins	4		5	3		3				4
TSR Prevalence	48%		50%		34%		32%		31%	

#### Improvement Opportunities

- Could also increase focus on Revenue Growth
- Could also increase focus on Margins
- Could also increase focus on Revenue Growth and TSR
- Increase focus on TSR
- Could also increase focus on Revenue Growth

#### Other Comments

- High direct use of TSR
- Low direct use of TSR despite low correlations
- Low direct use of TSR



## Performance Metrics and Their Link to Value

### Relationship of Metrics Used in Equity LTIs vs. Those That Best Correlate with TSR - 1998 and 2011 (continued)

Consumer Staples	Food & Staples Retail		Food, Bev & Tobacco		HH & Pers Pdcts	
	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	1	1	1	1	4
Revenue Growth	3	4	3	2	2	5
Returns	2	3	2	3	3	2
Cash Flow		2	4		4	1
Earnings Margins		5				3
TSR Prevalence	30%		50%		56%	
<b>Improvement Opportunities</b>	<ul style="list-style-type: none"> <li>▪ Increase focus on FCF (CapEx)</li> </ul>		<ul style="list-style-type: none"> <li>▪ Could also increase focus on Revenue Growth</li> </ul>		<ul style="list-style-type: none"> <li>▪ Could also increase focus on the balance sheet (Returns and FCF)</li> </ul>	
<b>Other Comments</b>	<ul style="list-style-type: none"> <li>▪ High correlations mitigate need for direct tie to TSR</li> </ul>		<ul style="list-style-type: none"> <li>▪ High direct use of TSR</li> </ul>		<ul style="list-style-type: none"> <li>▪ Strong overall metric correlations allows for use of most metrics;</li> <li>▪ High direct use of TSR</li> </ul>	

Health Care	Health Care Equip		Pharma, Biotech, LS	
	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	1	1	1
Revenue Growth	2	2	2	
Returns	3	3		
Cash Flow	4			
Earnings Margins				
TSR Prevalence	30%		34%	
<b>Improvement Opportunities</b>	<ul style="list-style-type: none"> <li>▪ Increase focus on TSR</li> </ul>		<ul style="list-style-type: none"> <li>▪ Increase focus on TSR</li> </ul>	
<b>Other Comments</b>	<ul style="list-style-type: none"> <li>▪ Low direct use of TSR despite mediocre correlations</li> </ul>		<ul style="list-style-type: none"> <li>▪ Relatively low direct use of TSR despite mediocre and limited correlations</li> </ul>	

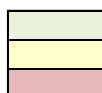


## Performance Metrics and Their Link to Value

### Relationship of Metrics Used in Equity LTIs vs. Those That Best Correlate with TSR - 1998 and 2011 (continued)

Financials	Banks		Diversified Financials		Insurance		Real Estate	
	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	1	1	1	1	2	2	1
Revenue Growth			3	3				
Returns	1	*	2	3	2	1		
Cash Flow						3	1	1
Earnings Margins				2				
TSR Prevalence	27%		39%		42%		58%	
<b>Improvement Opportunities</b>								
▪ Increase use of TSR								
* ROE has high correlation to Market-to-Book ratio								
<b>Other Comments</b>								
▪ Low direct use of TSR despite low correlations								
▪ Use of Returns may be understated since BV growth was not tracked								
▪ High direct use of TSR								

Information Technology	Software & Services		Hardware & Equip		Semiconductors	
	Use Rank	Corr Rank	Use Rank	Corr Rank	Use Rank	Corr Rank
Earnings Growth	1	3	1	1	2	3
Revenue Growth	2	1	2	2	1	4
Returns			3	4		2
Cash Flow		3	4	2		1
Earnings Margins	3	1	5	5	3	5
TSR Prevalence	24%		34%		28%	
Improvement Opportunities	▪ Increase focus on Margins and TSR		▪ Increase focus on the balance sheet (FCF and Returns)		▪ Increase focus on the balance sheet (FCF and Returns)	
Other Comments	▪ Low direct use of TSR				▪ Low direct use of TSR	



Metrics used generally match metrics correlated with value

Improvement opportunities exist

Significant divergence between metrics used and those correlated to value

Note: Use Ranks require a minimum usage of 10%



## Performance Metrics and Their Link to Value

### Which Metrics Correlate Best to TSR by Industry?

The table below summarizes the tables from the previous pages to show which metrics have the best correlation to TSR for each industry group. The top two metric types are indicated in the table below (denoted as **1** or **2**), showing growth metrics with the strongest correlation to shareholder value.

**Metrics Best Correlated to TSR by Industry**

Industry Sector	Industry Group	Which Metrics Correlate Best to TSR?			
		Earnings Growth	Revenue Growth	Cash Flow Returns (CapEx)	Earnings Margins
Single-Group Sectors	Energy	2		1	
	Materials	1	2		
	Telecommunication Services			2	1
	Utilities	1		2	
Industrials	Capital Goods	1	2		
	Commercial & Professional Services	1	2		
	Transportation	2		1	
Consumer Discretionary	Automobiles and Components	1		2	
	Consumer Durables and Apparel	1	2		
	Consumer Services	1	2		
	Media	1		2	
	Retailing	1	2		
Consumer Staples	Food & Staples Retailing	1		2	
	Food, Beverage & Tobacco	1	2		
	Household & Personal Products			2	1
Health Care	Health Care Equipment & Services	1	2		
	Pharma, Biotech & Life Sciences	1	2		
Financials	Banks	1			
	Diversified Financials	1			2
	Insurance	2		1	
	Real Estate	1		1	
Information Technology	Software & Services		1		1
	Technology Hardware & Equipment	1	2	2	
	Semiconductors			2	1

	Metrics used generally match metrics correlated with value (TSR)
	Improvement opportunities exist
	Significant divergence between metrics used and those correlated to value
1 or 2	Metric types most highly correlated to TSR - Best and second best correlation

To determine which industries had good, moderate or weak alignment, we compared metrics used most frequently against the metrics with the best correlation to TSR. Divergence between usage and correlation led to an assessment of where opportunities for improvement exist.



## Performance Metrics and Their Link to Value

### What Are the Greatest Areas of Improvement for Each Industry?

While some improvements already may have been made given the time horizon of this analysis (i.e., covering the years 1998-2011), patterns in the data suggest that opportunities for improvement still exist. These improvements vary by industry, as shown in the table below. They include:

- Greater need to use TSR directly when correlations to value are poor
- Need to balance growth with a greater use of efficiency measures, like Returns and/or Margins
- Greater need to take capital investments into account, not just the earnings from those investments
- Recognition that Revenue Growth can be a close second in correlation to value compared to Earnings Growth, offering the opportunity to supplement Earnings with Revenue Growth if indicated by the company's strategy and growth opportunities

### Improvement Opportunities in the Use of Metrics by Industry

Industry Sector	Industry Group	To Improve Alignment, Increase Focus On:				
		TSR (direct)	Earnings Growth	Revenue Growth	Cash Flow Returns (CapEx)	Earnings Margins
Single-Group Sectors	Energy					
	Materials					
	Telecommunication Services	✓			✓	✓
	Utilities					
Industrials	Capital Goods			✓		
	Commercial & Professional Services					
	Transportation				✓	
Consumer Discretionary	Automobiles and Components			✓		
	Consumer Durables and Apparel					✓
	Consumer Services	✓		✓		
	Media	✓				
	Retailing			✓		
Consumer Staples	Food & Staples Retailing	✓			✓	
	Food, Beverage & Tobacco			✓		
	Household & Personal Products				✓	
Health Care	Health Care Equipment & Services	✓				
	Pharma, Biotech & Life Sciences	✓				
Financials	Banks	✓				
	Diversified Financials					
	Insurance	✓				
	Real Estate		✓			
Information Technology	Software & Services	✓				✓
	Technology Hardware & Equipment				✓	
	Semiconductors	✓			✓	

	Metrics used generally match metrics correlated with value (TSR)
	Improvement opportunities exist
	Significant divergence between metrics used and those correlated to value





## Performance Metrics and Their Link to Value

Finally, it is important to acknowledge that certain industries may have been rational in not using metrics that correlated to value over the entire 1998-2011 timeframe, i.e., the period included in the study. This could have been due to the fact that the metrics correlating most strongly to value change over time and/or with the economic cycles – what works well in growth markets does not necessarily work well in recessionary environments. For example, in the Semiconductor & Semiconductor Equipment industry, Revenue Growth was the leading financial metric used over the time period studied (1998-2011). While Revenue Growth was most strongly correlated to TSR during the growth cycles, Returns and Cash Flows were better metrics to use during the recessionary periods. This underscores the fact that certain companies may be best served focusing on different metrics in different economic situations.



### Questions on Performance Metrics

Key questions for management, boards, and shareholders to ask in evaluating the effectiveness of performance metrics and their link to value include:

- How did the company choose its metrics?
- What evidence does the company have that performance against these metrics will lead to shareholder value creation?
- Are there any exogenous variables (e.g., economic conditions, commodity prices, etc.) that the company is trying to remove from the performance assessment in the short-term? In the long-term?
- How often are performance metrics evaluated to validate their effectiveness, particularly when external conditions (market, economic, etc.) shift?
- If the company is using relative benchmarks, how did they establish the comparator group?
- Was an evaluation of competitive practices used in determining company performance metrics?
- Within broad categories of metrics (e.g., Earnings, Returns), how are specific metrics (e.g., EBITDA, ROE) defined? For example, if the company is using ROE, instead of an unlevered return measure, what evidence does it have that leverage will be rewarded?
- How are performance goals set?
- What adjustments to the measures are allowed?
- If non-financial performance metrics are used, how are they selected and measured?



### Key Takeaways

Say on Pay has brought a clear focus to executive pay, and to pay for performance, in particular. As investors, executives, and boards try to better align executive incentives with shareholder interests, performance metrics (and the goal-setting processes that accompany those metrics) will come under greater scrutiny. This analysis highlights some clear takeaways to help improve the alignment between performance metrics and shareholder value.

### *Key Findings and Conclusions*

- Executive compensation design has moved towards long-term incentive (LTI) components in an attempt to align management interests with those of long-term shareholders; further, those LTIs are now largely performance-based
- Among companies using performance-based LTIs, most (53%) use a mix of TSR and financial measures in their equity LTI plans; others (28%) use financial measures only; and a smaller minority (15%) use TSR only. This use rate puts a premium on getting the financial measures right
- In aggregate, performance metrics are generally well-aligned with shareholder value. Earnings Growth, followed by Returns and Revenue Growth, has the greatest impact on TSR. In general, this matches the use patterns for financial metrics in LTIs: Earnings Growth is the most popular financial measure, followed by Returns and Revenue Growth. TSR (usually measured on a relative basis) is used as a direct measure of shareholder value in over 40% of companies with performance-based LTIs
- Many industries have a number of metrics to choose from. Half of the 24 Industry Groups studied have at least three metric categories with strong correlations
- However, the optimal use of measures differs considerably by industry. Industry Group, in general, as an indicator of business model, has the strongest influence on performance metrics used, with size and valuation premiums having little impact on metric selection
- The good news is that half of the 24 Industry Groups use metrics that most highly correlate to value, and also use TSR as a direct measure of shareholder value
- The bad news is that the other half of Industry Groups could use some improvement. The companies in these industries either are not using the metrics that are most strongly correlated to value or, when the overall correlations of financial metrics to shareholder value are poor, they are not sufficiently using TSR as a direct measure of shareholder performance. More specifically, the most significant improvement opportunities in these industries include:
  - Greater need to use TSR directly when correlations to value are poor
  - Need to balance growth with a greater use of efficiency measures, like Returns and/or Margins
  - Greater need to take capital investments into account, not just the earnings from those investments
  - Recognition that Revenue Growth can be a close second in correlation to value compared to Earnings Growth, offering the opportunity to supplement Earnings with Revenue Growth if indicated by the company's strategy and growth opportunities



## Performance Metrics and Their Link to Value

### *Recommended Actions*

We predict that metrics will become increasingly important and visible as investors and executives try to better align executive incentives with shareholder interests. This analysis suggests some key steps that investors and companies should take in order to improve that alignment. These include:

- Companies should undertake their own analysis to determine which measures of performance have the most influence on their shareholder value. In this regard, various measurement definitions (e.g., how depreciation, capital expenditures, asset definitions, and other items are treated) could make a significant difference to shareholder value and should be given careful consideration
- Companies should try to find two or three key metrics which appropriately balance growth and returns and demonstrate a proven link to value. However, if overall correlations to value are poor, then companies should link directly to TSR. If only one financial metric correlates to value, then companies should choose that single financial metric, perhaps supplemented by relevant non-financial metrics, and/or TSR, and should support this choice with a strong rationale
- Investors are likely to increase engagement activities around executive compensation in general, and specifically on performance metrics. In communicating with investors, companies should present (and investors should expect) compelling evidence as to how performance on various measures will lead to enhanced shareholder value

\* \* \* \* \*

We hope that this analysis is illuminating for investors and companies alike, and that it contributes to the quality of the dialog around how incentive programs, and the metrics that drive them, can enhance shareholder value and support the alignment between pay and performance.



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