

# PERFORMANCE MEASUREMENT AND EXECUTIVE COMPENSATION: PRACTICES OF HIGH-PERFORMANCE COMPANIES

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## ABSTRACT

*This study examines the links between financial performance and executive compensation for high-performance companies (HPC). HPC display sustained and superior cash flow returns, asset growth, and total shareholder returns. In previous empirical analysis, HPC companies displayed specific identifiable financial performance drivers and measures when compared to companies in the S&P 500 (Needles et al., 2004). Most recently, HPC sustained their high performance when compared to the S&P 500 over varied economic periods. Further, the research identified operating asset management characteristics of these companies, especially as they relate to the cash cycle (Needles et al., 2004). Continuing this stream of research, this study first identifies the financial and non-financial performance measures related to compensation of top management of HPC as reported in the companies' public disclosures. Then, these findings for HPC are matched to a set of comparable*

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*non-HPC. Finally, we evaluate the stated performance measures for executive compensation in light of the performance drivers and measures identified by previous research to be distinguishing characteristics of HPC. We hypothesize that HPC will more closely align stated performance measures for executive compensation with performance characteristics that have been shown to be characteristics of HPC. We find that HPC are more focused and unambiguous in their use of both financial and non-financial performance measures in executive compensation.*

This study continues our exploration of the links between strategy, execution, and financial performance by examining the links between financial performance and executive compensation for high-performance companies (HPC). HPC display sustained and superior cash flow returns, asset growth, and total shareholder returns. In previous empirical analysis, HPC companies displayed specific identifiable financial performance drivers and measures when compared to companies in the S&P 500 (Needles, Frigo, & Powers, 2006). Most recently, HPC sustained their high performance when compared to the S&P 500 over varied economic periods. Further, the research identified operating asset management characteristics of these companies, especially as they relate to the cash cycle (Needles, Frigo, & Powers, 2004). In the current study, the financial and non-financial performance measures related to compensation of top management of HPC as reported in the companies' public disclosures are identified. Then, these findings for HPC are matched to a set of comparable non-HPC. Finally, we evaluate the stated performance measures for executive compensation in light of the performance drivers and measures identified by previous research to be distinguishing characteristics of HPC. We hypothesize that HPC will more closely align stated performance measures for executive compensation with performance characteristics that have been shown to be characteristics of HPC. Indeed, HPC are more focused and unambiguous in their use of both financial and non-financial performance measures in executive compensation and HPC outperform comparable companies on the financial measures.

### **PRIOR RESEARCH RELATED TO EXECUTIVE COMPENSATION**

Typically, compensation programs are comprised of a mixture of base salary and short-term and long-term incentives; the incentive elements rely on a combination of performance measures (Epstein & Roy, 2005). However, the

real concern and the focus of the current study lies with determining the performance measures that serve as a basis for the annual bonuses, or short-term incentives, of top management. These bonuses are most commonly based on past or ex post financial or other performance incentives. Long-term incentives, such as stock options, are more difficult to evaluate due their objective of promoting future performance or *ex ante* measures. We focus in this chapter on the annual bonus contract because historical accounting literature is based on investigations that scrutinize the selection and behavioral consequences of annual bonus contracts (Ittner, Larcker, & Rajan, 1997). Core, Guay, and Verrecchia (2003) use agency theory to investigate the relative weights of price and non-price performance measures in total compensation and find that cash pay plays little role in CEO's total incentives, conflicting with standard agency predictions. Based on their results, they suggest further research on performance measure use in CEO compensation.

A topic of much heated debate contains the question of whether top executives, especially CEOs, actually earn their pay. In an article from the *Chicago Tribune* titled "CEO Pay Runs Way Ahead of Performance," a study found that chief executives from 11 companies from the Standard & Poor's 500 received \$865 million over five years while operating at a loss of \$640 million in shareholder value. According to the article, among one of the companies was AT&T, in which the CEO received \$17.2 million last year, while AT&T shares declined five percent (Bloomberg News, 2006). Although the public eye seems to surround issues such as the fairness of these immense CEO compensation arrangements, the scholarly press focuses on conclusions based on comprehensive analysis and research.

It is presumed that public companies' boards of directors bargain at arm's length with CEOs to negotiate pay arrangements designed to serve shareholders' interests in an effort to legitimize compensation arrangements through an underlying corporate law-based approach (Bebchuk & Fried, 2004). This fundamental conjecture of executive compensation leads to the assumption that the board bargains at arm's length with executives about compensation, exclusively considering the best interest of the entity and its stakeholders. The decision to provide the bonus portion of the compensation arrangement depends on the judgment of the board or its compensation committee (Bebchuk & Fried, 2004). If management teams are not driven through compensation measures, it may result in a failure to create value for a firm.

Katz, Gomez-Mejia, Tosi, and Werner (2000) evaluated relationships between firm size, performance, and CEO pay. The foundation for the theory was formulated based on the agency theory. Agency theory concerns the

relationship between a principal, the shareholder, and an agent of the principal, the company's managers (i.e. CEO). In essence, it entails the costs of resolving disagreements between the principals and agents and aligning interests of the two groups. The principal can align these interests through monitoring of the agent to guarantee that the principal's interests are being met. This is frequently impractical, and therefore the principal will align the interests through executive compensation. Executive compensation consists of base salary, bonus, and equity compensation such as stock options. The goal of equity compensation is for the agent to have similar interests as the shareholders and therefore be motivated to take on riskier projects that will produce higher returns. The research assessed throughout the study provided evidence that supports the theory in which organizational size is a significant determinant of total CEO pay. Combined indicators of firm size explain approximately nine times the amount of variance in total CEO pay as compared to the most highly associated performance measure. Fascinating enough, further exploration concludes that firm size accounts for more than 40 percent of the fluctuations in total CEO pay, while a firm's operational performance accounts for less than 5 percent of the variance (Katz et al., 2000).

As indicated above, many annual bonus awards rely on financial results and in prior years these measures have been criticized for encouraging an exaggerated misrepresentation on short-term accounting profits and hindering the emphasis on long-term investments (Ittner et al., 1997). Performance measures such as earnings and return on investment (ROI) have limited value and can be easily manipulated, such as through the timing of transaction recognition, when it comes to compensation of top executives. In addition, changes in share price are not a good indicator of a manager's own performance based on the fact that a company's stock price can increase for reasons unrelated to a manager's own efforts and decision making (Bebchuk & Fried, 2004). ROI is one of the most common performance measures, and has been criticized for not taking into consideration the cost of capital and for being unduly influenced by external reporting rules (Ittner & Larcker, 1998). In the case of Fannie Mae, for example, the chief executive Franklin Raines received nearly \$52 million from 1999 through 2003 based on performance measures such as a 15 percent annual earnings growth. Then, in September of 2004, Fannie collapsed due to the discovery of accounting improprieties, which caused investors to question whether Raines had manipulated the numbers in order to take home more money in his pocket (MacDonald & Ozanian, 2005). In other words, accounting earnings are a key factor in measuring performance for the rationale of executive compensation. Furthermore, another recent

study examined the outcome of earnings persistence on the style and nature of executive compensation. The study determined that accounting earnings obtain more weight in executive compensation contracts for firms with high earnings persistence than those with low earnings persistence (Ashley & Yang, 2004). Further, relying primarily on accounting earnings becomes problematic when the accounting data are noisy. Yermack (1995) found that the noisier the accounting data, the more likely it was that a board of directors would provide incentives from stock options to monitor the performance of the CEO.

Hayes and Schaefer (2000) investigated observable and unobservable (to outsiders of the entity) measures of executive performance. In essence, unobservable measures are those that are only visible to those inside the firm. The research observed the premise that the unexplained variation in executive compensation contracts should predict future variation in firm performance if the unobservable measures are positively correlated with future firm performance. In other words, the hypothesis of the study is that executive compensation is a circuitous indicator of future firm performance. After testing the hypothesis through the use of executive compensation data from the *Forbes* Executive Compensation Surveys, the study concluded that strong evidence supports the unexplained variation in current executive compensation to be related to future performance. Implications further confirmed that as the variance of observable (to outsiders) measures of performance is higher, the relationship between unexplained variation in current compensation and future performance is stronger. To rephrase the concluding analysis of the study, the unknown fluctuations in compensation to top executives are connected to the future operations of a company. Furthermore, when the performance measures that are observable only to those inside the firm are lower, the correlation between the unknown fluctuations in current executive compensation amounts and the future operations of a company is improved. Hayes and Schaefer (2000) determined that this inference is consistent with the fact that firms substitute away from performance measures visible to the public toward measures that are unobservable to outsiders as the public measures become more strident.

## EMPIRICAL OBJECTIVES

In order to measure the compensation as listed in the annual bonus contract, boards of directors bestow a number of benchmarks such as strategic initiatives, fundamental performance drivers, and a widespread set of both

financial and non-financial performance measures (Epstein & Roy, 2005). Over the past decade, more emphasis has been placed on incorporating non-financial metrics into the performance measurement process. More specifically, the use of non-financial objectives such as product innovation, customer satisfaction, and employee satisfaction has taken a significant jump in recent years (Ittner et al., 1997). In other words, both objective and subjective criteria can be used for quantitatively determining an executive's bonus qualifications. Objective measures are goals whose attainment can readily be determined, as with financial performance measures. Subjective or discretionary measures often lead to disagreements regarding whether the executive has in fact achieved the goals, as with non-financial performance measures (Bebchuk & Fried, 2004).

In accord with this background, we conduct tests of significant differences among the top 10 financial performance measures and the leading 4 non-financial performance measures. Further, we examine the performance of HPC versus comparables on the identified value-added financial measures over the period 2001–2005. The data for this study comes from the DEF14A, or the definitive proxy statement, the primary source of information about management's strategies for the firm as well as management compensation. Included in the proxy statement is a summary of *how members of management are paid, how much they are paid, and their incentives for payment*.

We expect the HPC, in contrast to their comparable companies, will more closely align stated performance measures for execution compensation with measurement characteristics that have been shown to be the attributes of HPC. We have divided the measurement results into the following three criteria: strategic goals and initiatives, key financial measures, and various non-financial measures. Any performance metrics enumerated in the proxy statement that did not meet those categories were classified separately according to the balanced scorecard.

### *Strategy*

As previously mentioned, the first performance metric that we analyzed was strategic goals and initiatives. To connect corporate operations with corporate strategic goals, the performance judgments of management must consist of key factors that provide insight into the organization's capabilities to cultivate its future competitive position and allow for the forecast of future performance (Epstein & Roy, 2005). Strategic goals and initiatives go hand in hand with developing a comprehensive strategy to maximize the

potential of a variety of business opportunities and attaining selected strategic goals along with a set of individually defined strategic initiatives. A true business strategy expert must focus on emphasizing one firm goal that should drive all his or her analysis and decision making: helping the business maximize the creation of financial value (Frigo & Litman, 2004). In order for management to achieve the goal of supporting strategic objectives, he or she must have demonstrated the development and execution of strategic plans. In addition, the term strategy indirectly imposes the standard of strategically positioning the entity's assets and strategic alliances.

### *Financial Performance Measures*

Traditional performance has been measured according to financial results. Therefore, compensation has a history of being defined in terms of financial metrics. Many companies today conventionally still use financial measures as the sole basis of measuring executive compensation. The following financial performance measures were evaluated in our study of executive compensation:

- Stock return
- Net income
- Earnings per share
- Earnings Before Interest and Taxes (EBIT), Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) or earnings before taxes
- Operating profit/operating profit margin
- Cash flows
- Return on assets
- Return on equity
- Return on investment
- Earnings goals and sales growth

### *Non-Financial Performance Measures*

Traditional financial performance measures often represent lagging indicators, quantifying past or present results but demonstrating failure to forecast future performance or anticipate behavior that will result in executing and obtaining future performance objectives (Epstein & Roy, 2005). As previously mentioned, annual bonus awards calculated in conjunction with financial performance measures have been linked to management decisions

that avoid focus on long-term investments and actually create strategies that centralize on short-term results. However, firms that have traditionally relied almost entirely on financial performance measures such as earnings, accounting profits, and stock returns, are now beginning to realize that heavy emphasis placed on financial measures is inconsistent with their relative significance (Ittner & Larcker, 1998). In other words, it is suggested that non-financial measures essentially lead to greater financial performance. The primary reasons suggested for the use of non-financial performance measures in incentive contracts for executive management are that these measures are more superior indicators of projected financial performance than conventional accounting, or financial measures and they are functional in assessing and motivating managerial performance (Banker, Potter, & Srinivasan, 2000). Instead of pertaining to short-term performance as financial performance measures, non-financial measures are positively correlated to the long-term benefits and economical well being of the entity.

Non-financial measures such as meeting customer needs, internal process improvements, and an organization's innovation of product and brand offerings reflect current managerial decisions that do not expose such efforts until subsequent years pass (Banker et al., 2000). For example, current research and development expenditures of a pharmaceutical or technology company are not likely to generate economic benefits until future years due to the extensive investigation and testing procedures of the product offerings. By incorporating non-financial indicators into the measurement systems pertaining to award contracts, many firms seek to create a wider set of measures that capture not only firm value, but also the factors leading to the creation of value in the business (Ittner & Larcker, 1998). Our study has concluded that the primary non-financial performance measures fall into four categories: human resource management, production and operations, marketing and customer service, and management performance and company-related objectives.

Firstly, human resource management is comprised of employee survey results and employee retention. How well the human resource department of a company is managed reflects on the employee turnover calculation. An effective human resource department is reflected in the achievement of departmental work plans. In addition, efficiency is organized into the development of management and employees and the exercise of leadership within the industry and in the communities.

Secondly, allocating production and operations to the non-financial performance sector of executive compensation encompasses the commitment to the quality of products and/or services and manufacturing



productivity. When companies utilize production and operations as a non-financial measurement in determining executive compensation, it can also include any acquisitions of products, patents, and product registrations. Objectives pertaining to this category tend to include any product cost reduction targets and innovation of certain products and/or services that promote development, growth, and expansion. In addition, ensuring an ample product supply and an effective launch of new offerings supports the leadership in advancing growth through new product development and the licensing of new products.

Thirdly, marketing and customer-related non-financial objectives could be defined in terms of customer survey results and customer retention. Valuing customer-oriented goals supports the promotion of customer satisfaction and the improvement of community satisfaction. Furthermore, a large portion of marketing performance measures target factors such as market penetration and marketing expansion efforts.

Lastly, management performance and company related objectives are a non-financial performance measure that directs successful leadership, guidance, and ethics. Achievement of company-related objectives could involve the implementation or completion of critical projects. Personal and individual goals of executives as approved by a company's compensation committee along with annual bonus awards are based on the attainment of specific business and management objectives. In relation to the establishment of policies, directives, and organizational goals to position the company for growth, leadership qualities are measured by reviews from the executive's subordinates, peers, and superiors. Individual performance goals pertain to the level of responsibility and commitment, level of performance, and past and present contribution to the achievement of organizational goals and contributions to the business unit. Management performance is demonstrated through progress toward or achievement of milestones in such executive's area of responsibility with respect to the company's financial performance. In addition, individual objectives of executives entail the delivery of strong financial performance along with driving the company's growth through organizational leadership and the development of enhancing globalization in relation to the company's business.

## **EMPIRICAL SAMPLE**

As previously mentioned, our investigation focused on two groups of companies: "High-performance companies (HPC)" and three publicly

traded comparable companies (see Appendix). The comparable companies were chosen from within the same industry code and similar size and operations but without regard to financial performance. International companies were not included in the empirical sample since they do not issue statements comparable to the proxy statement. The data for the publicly traded comparable companies were found using the Standard & Poor's Net Advantage database. As noted in previous research, the first group consisted of 38 HPC that have met the following strict criteria (Frigo, 2002a, 2002b):

- 10+ Years of Cash Flow Return on Investment (CFROI) about double or more the cost of capital,
- 10+ Years Asset Growth rates exceeding GDP, and
- 10+ Years Total Shareholder Return (TSR) consistent with ROIs and Growth.

The Return Driven Strategy Initiative is an ongoing research study spearheaded at the Center for Strategy, Execution, and Valuation in the Kellstadt Graduate School of Business at DePaul University. The research involves the screening of more than 15,000 public companies and the identifying, documenting, and benchmarking of the strategic activities that separate the best performers from the worst (Frigo & Litman, 2004). The Return Driven Strategy Initiative influenced the development of a framework for strategic analysis designed to focus on the prioritization of business activities that lead to the highest levels of financial performance (Litman, 2003). This research was conducted in correlation with the CSFB HOLT's Value Search database of cash flow performance and valuations of tens of thousands of companies (Frigo & Litman, 2004). Intense investigation through the use of this database led to the discovery of the 38 companies that have exhibited extraordinary financial performance, closely paralleling the Return Driven Strategy framework consisting of a set of strict requirements, or tenets, that compel the success of a firm.

In doing the analyses, the HPC were grouped alphabetically according to their ticker symbols along with the ticker symbols of each of the three comparable companies listed in accordance. The data for executive compensation with regard to foreign comparable companies was excluded from the study.

## DISCUSSION OF RESULTS

Table 1 shows the study results organized for HPC and their comparable companies into the three categories:

- Strategic goals and initiatives (1 measure)
- Financial measures (10 measures)
- Non-financial measures (4 measures).

### *Findings*

The data findings were determined through close and careful examination of proxy statements for the most recent year (usually 2005) for each individual company studied. The totals for each category were then calculated separately for the HPC and their comparable companies. Percentages were computed according to the amount of companies that illustrated positive results for the category in terms of the total number of companies and again, separately for the HPC and their comparable companies. Any non-US companies were excluded from all calculations with regard to totals due to lack of comparable reporting.

Neither HPC nor comparables tend to emphasize overall strategic goals and incentives. Only about one in five (22 percent) of HPC and comparable companies mention these areas as executive compensation criteria. However, HPC are clearly more focused in execution compensation policies. For example, HPC use significantly fewer measures – both financial (2.45 per HPC versus 3.17 on average for comparables) and non-financial (.97 per HPC versus 1.31 on average for comparables). These differences are statistically significant.

Further, HPC emphasize unadjusted value-creating measures, especially earnings per share (69 percent versus 32 percent) and earnings goals and sales growth (61 percent versus 43 percent). HPC are also more frequent users of net income (33 percent versus 15 percent), cash flows (17 percent versus 13 percent), return on assets (19 percent versus 5 percent), and return on equity (19 percent versus 7 percent). All these differences are statistically significant except cash flows. In contrast, comparable companies tend to use more adjusted financial measures such as EBITDA and EBIT (17 percent for comparables versus 14 percent for HPC) and ROI (12 percent versus

**Table 1.** Financial and Non-Financial Measures Used in Executive Compensation.

	Financial Measures											Total
	Strategic goals and initiatives	Stock return	Net income	EPS	EBITDA, EBIT, or pretax earnings targets	OP profit/OP profit margin	Cash flow	ROA	ROE	ROI	Earnings goals and sales growth	
HPC totals	8	6	12	25	5	3	6	7	7	1	22	94
Comparables totals	23	7	16	33	18	17	14	5	7	12	45	174
Difference	-15	-1	-4	-8	-13	-14	-8	2	0	-11	-23	-80
Percentage difference	-187.50	-16.67	-33.33	-32.00	-260.00	-466.67	-133.33	28.57	0.00	-1,100.00	-104.55	-85.11
t-test	0.494780	0.069725	0.022475	0.000048	0.311787	0.090010	0.327636	0.021496	0.040680	0.019543	0.033638	0.001061
HPC percentages (of 36 HPC)	22.22	16.67	33.33	69.44	13.89	8.33	16.67	19.44	19.44	2.78	61.11	261.11
Comparables percentages (of 104 comparables)	22.12	6.73	15.38	31.73	17.31	16.35	13.46	4.81	6.73	11.54	43.27	167.31
Difference (%)	0.11	9.94	17.95	37.71	-3.42	-8.01	3.21	14.64	12.71	-8.76	17.84	93.80
Percentage difference	0.48	59.62	53.85	54.31	-24.62	-96.15	19.23	75.27	65.38	-315.38	29.20	35.92
t-test	0.494780	0.069725	0.022475	0.000048	0.311787	0.090010	0.327636	0.021496	0.040680	0.019543	0.033638	0.001061

	Non-Financial Objectives				Total
	Human resources management	Production/operations	Marketing/customer related	Management performance and individual/company-related objectives	
HPC totals	11	7	6	13	37
Comparables totals	14	5	9	47	75
Difference	-3	2	-3	-34	-38
Percentage difference	-27.27	28.57	-50.00	-261.54	-102.70
<i>t</i> -test	0.024697	0.021496	0.124943	0.171023	0.057698
HPC percentages (of 36 HPC)	30.56	19.44	16.67	36.11	102.78
Comparables percentages (of 104 comparables)	13.46	4.81	8.65	45.19	72.12
Difference (%)	17.09	14.64	8.01	-9.08	30.66
Percentage difference	55.94	75.27	48.08	-25.15	29.83
<i>t</i> -test	0.024697	0.021496	0.124943	0.171023	0.057698

Note: EPS, Earnings per share; OP, Operating; ROA, Return on assets; ROE, Return on equity; ROI, Return on investments.

3 percent). These latter measures are areas in which judgment can play a role by excluding negatives from the measurements.

When examining the results of the non-financial objectives in relation to executive compensation, the HPC used statistically significantly higher percentages for metrics in specific strategic areas such as human resource management (31 percent versus 13 percent), production and operations (19 percent versus 5 percent), and marketing/customer related (17 percent versus 9 percent).

These results sustain the Return Driven Strategy structure in that engaging employees is one of the eleven principles of applying the framework (Frigo, 2002a, 2002b). Obtaining the right workforce and engaging it in activities that challenge and develop its ability to innovate, operate, and build on a company's brand is a primary competitive advantage. Management and employees must have the proper incentives to be motivated and aligned toward the company's objectives, especially through the exercise of the quality of leadership, values, and culture. In order to allow growth and prosperity of a firm, constant re-invention and integrating strategies that focus on creating new products and services is necessary. Innovative offerings is a second principle within the Return Driven Strategy framework and further supports evidence that HPC prioritize product innovation, understanding that differentiating the offering leads to value execution.

Comparable companies tend to use more general statements about management performance and company-related objectives than HPC (45 percent versus 36 percent) as opposed to the specific areas discussed in the previous paragraph. As a result, in a similar manner to the financial measures, there is less focus and opportunity for the use of "judgment" in evaluating performance of executives in the comparable companies.

### *Performance Measurement*

In the previous section, it was observed that HPC tended to emphasize value-creating financial measures in its executive compensation practices. The performance of HPC companies was compared to the comparables for the period 12/31/2001–12/31/2005 to test whether HPC indeed performed better in these areas. Earnings per share were excluded because of the difficulty of comparing this measure among companies. Sales growth, return on assets, return on equity, cash flows returns on assets, cash flows returns

on stockholders' equity, and cash flows returns on sales were included. The following hypothesis was tested for each of these measures:

**H.** There is no significant difference between the HPC and the comparable companies.

The hypothesis was rejected in every case, indicating that HPC performed significantly better on those value-creating measures that were identified as the basis of executive compensation.

## **FUTURE RESEARCH**

As noted in the discussion above, the issue of equity-based compensation is a complex one, especially as regards it being an ex ante or ex post incentive. Companies' proxy statements enable the determination of stock options for company CEO's and the company's top management (including the CEO). Data is also available for the amount of exercisable and unexercisable options outstanding along with the dollar value amount. An extension of the current study to be done in the future will look at the role equity-based compensation for HPC versus comparables.

## **CONCLUSION**

In this study, financial and non-financial performances related to executive compensation were examined for HPC and a set of comparable companies. This is a continuation of our work involving the identification of characteristics of HPC. The measurement results were divided into the following three criteria: strategic goals and initiatives, key financial measures, and various non-financial measures. Tests of significant differences were conducted among the top 10 financial performance measures and the leading 4 non-financial performance measures. HPC are more likely to use unadjusted value-creating measures, especially earnings per share and earnings goals and sales growth. HPC are also more frequent users of net income, cash flows, return on assets, and return on equity. In contrast, comparable companies tend to use more adjusted financial measures such as EBITDA and EBIT and ROI. These latter measures are areas in which judgment can play a role by excluding and overcoming negatives from the measurements. When examining the results of the non-financial objectives in

relation to executive compensation, the HPC used statistically significantly higher percentages for metrics in specific strategic areas such as human resource management production and operations, and marketing/customer related. Comparable companies tended to use more general non-financial measures than did HPC. Finally, we examined the performance of HPC versus comparables on the identified value-added financial measures over the period 2001–2005. HPC performed significantly better on those value-creating measures that were identified as the basis of executive compensation.

In summary, HPC are more focused and unambiguous in their use of both financial and non-financial performance measures in executive compensation and HPC outperform comparable companies on the financial measures.

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## APPENDIX

High-Performing Companies		Comparables	
Symbol	Company name	Symbol	Company name
ABT	Abbot Laboratories	AGN	Allergan Inc.
		MYL	Mylan Labs Inc.
		PARS	Pharmos Corp.
ADP	Automatic Data Processing, Inc.	ASF	Administaff Inc.
		CEN	Ceridian Corporation
		FDC	First Data Corp.
AMGN	Amgen Inc.	CRL	Charles River Laboratories International Inc.
		IVGN	Invitrogen Corp.
		AFFX	Affymetrix Inc.
AXP	American Express Company	COF	Capital One Financial Corp.
		FMD	First Marblehead Corp.
		ACF	AmeriCredit Corp.
AZN	AstraZeneca plc	GSK	Glaxosmithkline plc
		SEPR	Sepracor, Inc.
		BRL	Barr Pharmaceuticals Inc.

## APPENDIX (Continued)

High-Performing Companies		Comparables	
Symbol	Company name	Symbol	Company name
BBBY	Bed Bath & Beyond Inc.	PIR	Pier 1 Imports Inc.
		LIN	Litcomp PLC
		WSM	Williams-Sonoma Inc.
BVF	Biovail Corp.	ALKS	Alkermes, Inc.
		ADRX	Andrx Group Corp.
		IPXL.PK	Impax Laboratories Inc.
CTAS	Cintas Corp.	RMK	Ready Mix Inc.
		GKSR	G&K Services Inc.
		KAR	Kardex
DELL	Dell Inc.	HPQ	Hewlett-Packard Co.
		IBM	International Business Machines Corp.
		GTW	Gateway Inc.
DHR	Danaher Corp.	DOV	Dover Corp.
		TKR	Timken Co.
		CR	Crane Co.
ESRX	Express Scripts Inc.	CMX	Catalyst Media Group PLC
		OCR	Omnicare Inc.
		APR	April Group
FNM	Fannie Mae	FRE	Freddie Mac
		SOV	Sovereign Bancorp Inc.
		CFC	Countrywide Financial Corp.
FRX	Forest Laboratories Inc.	SNY	Sanofi-Aventis
		ENDP	Endo Pharmaceuticals Holdings Inc.
		WPI	Watson Pharmaceuticals Inc.
GE	General Electric Co.	MMM	3M Co.
		TYC	Tyco International Ltd.
		TXT	Textron Inc.
GPS	Gap Inc.	ANF	Abercrombie & Fitch Co.
		AEOS	American Eagle Outfitters Inc.
		ARO	Aeropostale Inc.
HD	The Home Depot, Inc.	LOW	Lowe's Companies Inc.
		SHW	Sherwin-Williams Co.
		KGfHY.PK	Kingfisher New ADR
HOG	Harley-Davidson Inc.	DMH	Ducati Motor Holding SpA
		VPWS.OB	Viper Powersports Inc.
		UMCC.PK	Ultra Motorcycle Co.

## APPENDIX (Continued)

High-Performing Companies		Comparables	
Symbol	Company name	Symbol	Company name
INTC	Intel Corp.	AMD	Advanced Micro Devices Inc.
		TXN	Texas Instruments Inc.
		LLTC	Linear Technology Corp.
ITW	Illinois Tool Works Inc.	PNR	Pentair Inc.
		HSC	Harsco Corp.
		DCI	Donaldson Company Inc.
JNJ	Johnson & Johnson	PG	Procter & Gamble Co.
		KV-B	K V Pharma CL B
		MRX	Medicis Pharmaceutical Corp.
JNY	Jones Apparel Group Inc.	RL	Polo Ralph Lauren Corp.
		FOSL	Fossil Inc.
		LIZ	Liz Clairborne Inc.
KO	Coca-Cola Co.	JSDA	Jones Soda Co.
		PEP	Pepsico, Inc.
		FIZ	National Beverage Corp.
LLY	Eli Lilly & Co.	AL	Alcan, Inc.
		PRX	Par Pharmaceutical Companies Inc.
		BNT	Bentley Pharmaceuticals Inc.
MDT	Medtronic Inc.	BSX	Boston Scientific Corp.
		STJ	St. Jude Medical Inc.
		BDX	Becton Dickinson & Co.
MRK	Merck & Co. Inc.	BMJ	Bristol-Myers Squibb Co.
		PTIE	Pain Therapeutics Inc.
		SUPG	SuperGen Inc.
MSFT	Microsoft Corp.	SYMC	Symantec Corp.
		CA	CA, Inc.
		RHT	Red Hat Inc.
MXIM	Maxim Integrated Products Inc.	MU	Micron Technology Inc.
		MCHP	Microchip Technology Inc.
		ALTR	Altera Corp.
OMC	Omnicom Group Inc.	IPG	Interpublic Group of Companies Inc.
		LAMR	Lamar Advertising Co.
ORCL	Oracle Corp.	RHD	RH Donnelley Corp.
		BMC	BMC Software Inc.
		MFE	McAfee Inc.
		NOVL	Novell Inc.

## APPENDIX (Continued)

High-Performing Companies		Comparables	
Symbol	Company name	Symbol	Company name
PAYX	Paychex Inc.	ACS	Affiliated Computer Services, Inc.
		TSS	Total System Services, Inc.
		MGI	Moneygram International Inc.
PFE	Pfizer Inc.	NVS	Novartis AG
		DDD	SCOLR Pharma Inc.
		VRX	Valeant Pharmaceuticals International
PII	Polaris Industries Inc.	ACAT	Arctic Cat Inc.
		HMC	Honda Motor Co. Ltd.
		MPX	Marine Products Corp.
RHI	Robert Half International Inc.	MAN	Manpower Inc.
		KELYA	Kelly Services Inc.
		KFY	Korn/Ferry International
SGP	Schering-Plough Corp.	KG	King Pharmaceuticals Inc.
		QGLY	Quigley Corp.
		QSC	Questcor Pharmaceuticals Inc.
SYK	Stryker Corp.	WAT	Waters Corp.
		ZMH	Zimmer Holdings Inc.
		HSP	Hospira Inc.
SYY	Sysco Corp.	PFGC	Performance Food Group Co.
		UNFI	United Natural Foods Inc.
		NAFC	Nash Finch Co.
WMT	Wal-Mart Stores Inc.	COST	Costco Wholesale Corp.
		PSMT	PriceSmart Inc.
		BJ	BJ's Wholesale Club Inc.
WYE	Wyeth	TEVA	Teva Pharmaceutical Industries Ltd.
		IVX	Ivax Corp.
		NXXI	Nutrition 21 Inc.