

VALUE AND Wealth Creation IN CANADA

An examination of wealth creation, share price performance and CEO compensation.

BY VIJAY JOG AND SHANTANU DUTTA

The year 2003 has been an interesting year for global stock markets in general: most of them were up by 30% from the beginning of the year, with the NASDAQ gaining almost 60% (by the end of October). These gains have led some in the financial media to suggest that the worst is over and that boom days are just around the corner. However, some cautious analysts are suggesting that current valuations are still dangerously high based on the near-term prospects of revenue and earnings growth; they also claim some market participants seem to have forgotten the recent past, where valuations became detached from performance. In light of these stock market gains, Canadians are also wondering about the implications of a soaring Canadian dollar (due largely to a falling U.S. dollar) on a heavily export-driven (and rather complacent) corporate sector that may not have fully appreciated the impact of a 80-cent dollar on their bottom lines. Already some export-dependent companies are reporting significantly lower earnings.

No matter what one thinks about the current and near-term state of the markets, it is clear that the events in the last three years focused investor attention on the underlying fundamentals of businesses. The attention on corporate governance and the role of the board of directors is also indicative of the fact that investors are focusing not on the share prices of the firms but the

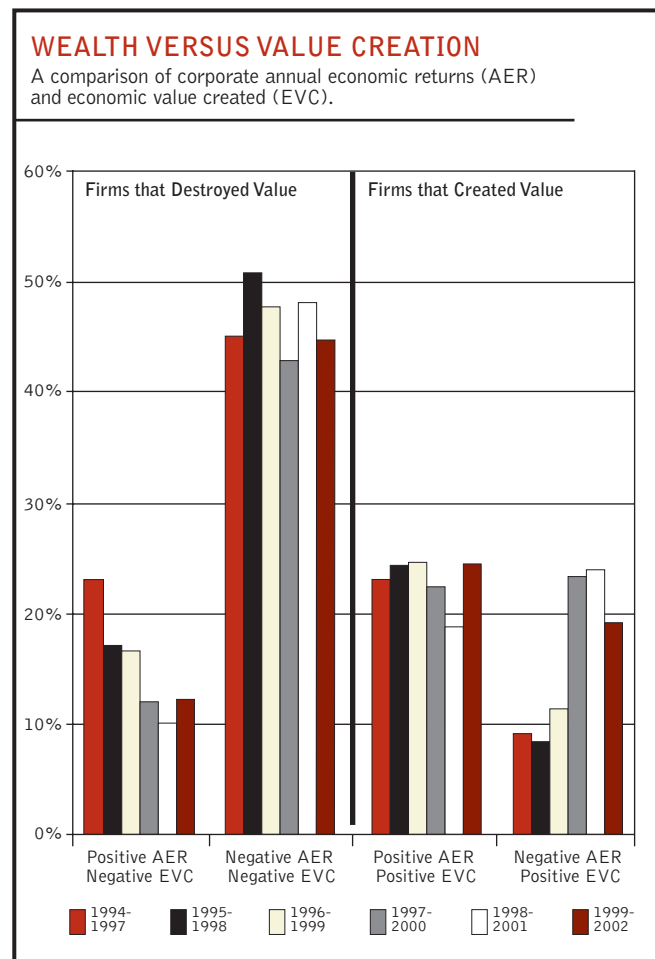


EXHIBIT 1

Vijay Jog is a Chancellor Professor at the Sprott School of Business, Carleton University and president of Corporate Renaissance Group in Ottawa. Shantanu Dutta is in the doctoral program at Sprott. All financial data used in this paper comes from StockGuide.

demonstration by senior management that they are focused on the fundamentals of their business.

Against this backdrop, the intent of this paper is threefold. First, we want to investigate the performance of the TSX-listed Canadian companies from the perspective of shareholder value.¹ Next, we provide results that indicate there is an increasing congruence between the fundamental performance of the business and stock price performance. Third, we take a subset of companies that differ in their performance and investigate whether we also detect differences in CEO compensation.

Our results span data from 1994 through 2002, with specific focus on the performance over the last four-year period (1999-2002), which includes 453 publicly-traded Canadian companies listed continuously on the Toronto Stock Exchange over this four-year period.

It is now well accepted that profit numbers do not represent a complete picture of a firm's performance, as these numbers do not take into account the invested

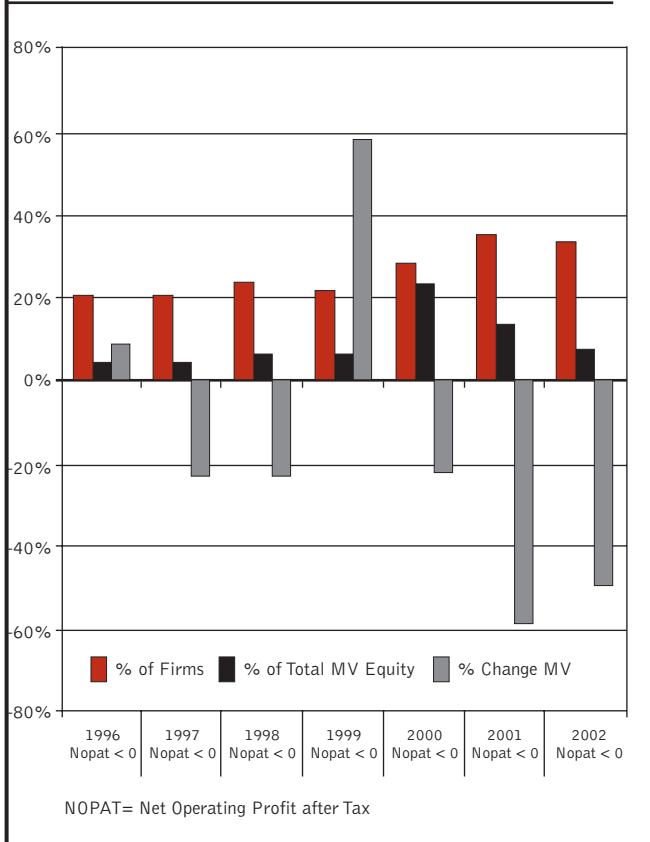
capital that is used to generate these profits.

Accordingly, a widely accepted definition of true value creation performance is calculated by the difference between return on invested capital and the corresponding cost of the capital multiplied by the amount of net assets (or capital) invested in the business. If this number (referred to in this paper as "Economic Value Created," or EVC) is positive, one would say that the firm's management has used the firm's assets wisely and generated shareholder value beyond what was required given the opportunity cost of capital. Over the most recent four years of study, 196 (44%) of the 453 firms were able to create positive economic value, while the remaining 257 (56%) of the firms destroyed value.² The wealth creation, on the other hand, can be viewed as the stock market returns accruing to investors that are higher than what is required to compensate for the riskiness of the firm. Using this as a measure of performance, we found that 165 (36%) created wealth (over and above what was expected) and 288 (64%) destroyed wealth.

Exhibit I provides a visual comparison based on these two measures over the last six four-year periods and leads to some interesting observations. First, over these six sub-periods, the percentage of companies creating shareholder value increased but stabilised at approximately 45% (the two sub-samples on the right half of the exhibit). This means that, on average, more than half of Canadian companies do not earn their cost of capital. Second, the percentage of firms that destroyed value but showed wealth-creating performance has steadily declined (left most sub sample—positive annual economic returns (AER) and negative EVC), implying that investors are valuing firms more for their current performance than the expected performance. Third, there is a group of companies that has created economic value but has not been able to convert this performance into stock market gains. This proportion has actually risen and now represents almost 20% of the companies. There could be two reasons (speculations) for these results. Either investors are undervaluing these firms due to some sectoral preferences, or they do not believe that the future prospects of these firms would be closer to their past and current performance due to either macro-economic factors (exchange rates, interest rates) or industry-specific factors (technology bubble). Fourth, a significant percentage of

FIRMS WITH NEGATIVE NET OPERATING PROFIT AFTER TAX (NOPAT)

The percentage of firms with negative NOPAT from 1996 to 2002.



firms have destroyed value as well as wealth for their investors (negative AER, negative EVC). Overall, these results indicate that there is long way to go before we can say that Canadian corporations as a whole are managing shareholder capital in a prudent manner.

Since the results of Exhibit 1 may be affected by our estimates of the cost of capital as well as some adjustments we have made to the invested capital (for example, an adjustment for write-offs or R&D expenditures), a simpler approach is to look at the net operating profit after tax (NOPAT) of the sample firms. Exhibit 2 shows the percentage of firms with negative NOPAT. More specifically, it shows that in 2002, 34% of the firms had negative operating profits; these firms represented 8% of the market value and 45% of the total decline in market capitalisation. This is in contrast to 1999, where investors ignored the profit picture and bid up the stock prices. Thus, it seems that some rationality has come back to stock markets—companies that show losses have seen corresponding declines in their stock prices. These companies represent 10% percent of the total sample revenues and 10% of assets. However, although these firms represent almost one-third of the Canadian firms, they do not represent a large fraction of shareholders' invested capital.³

Focusing our attention away from overall results to

the results of specific companies, Exhibit 3 shows the top 20 value creators over the 1999-2002 period, grouped by the size of their 2002 year-end assets. The EVC% number represents the spread between return on capital and the corresponding cost of capital. However, one can also note that some of the 20 companies in the \$200-million-and-over category belong to the oil and gas sector and may have benefited from the increase in world prices.⁴ Similarly, in the group with less than \$200 million in assets, we see the dominance of natural resources and investment companies.

Exhibit 4 provides a list of companies that have dominated their respective sector on a consistent basis. Clearly, there are management teams that are focused on building value-creating management systems and strategies irrespective of the performance of their sector.⁵

Each industry also has consistent value destroyers. Exhibit 5 shows a list of some of these companies for the most recent four years as well as over a longer eight-year period. One surprise on this list is Ballard Power, which in the 1990s generated significant wealth for investors. The main reason for Ballard's presence is it never generated a positive spread on capital invested:⁶ almost all of its stock performance was based on investors' expectations about its ability to dominate the fuel cell market, and the assump-

TOP 20 VALUE CREATORS BY ASSET SIZE 1999-2002

> 200m\$ Companies		< 200m\$ Companies		
Rank	Company	EVC	Company	EVC
1	AASTRA TECHNOLOGIES INC.	29.5%	CRYPTOLOGIC INC.	114.5%
2	PETROKAZAKHSTAN INC.	26.8%	THE CHURCHILL CORPORATION	43.9%
3	BONAVISTA PETROLEUM LTD.	20.1%	SCEPTRE INVESTMENT COUNSEL LTD	35.1%
4	COGNOS INC.	18.6%	HERITAGE OIL CORPORATION	22.3%
5	DUPONT CANADA INC.	15.6%	WILMINGTON CAPITAL MANAGEMENT	22.2%
6	LEON'S FURNITURE LIMITED	11.9%	BENNETT ENVIRONMENTAL INC.	22.1%
7	WESCAST INDUSTRIES INC.	11.8%	OLYMPIA ENERGY INC.	19.5%
8	B M T C GROUP INC.	11.7%	CALIAN TECHNOLOGY LTD.	13.9%
9	C M L HEALTHCARE INC.	11.4%	PEBERCAN INC.	13.4%
10	COMPTON PETROLEUM CORPORATION	11.4%	DEVLAN EXPLORATION INC.	13.1%
11	CANADIAN NATURAL RESOURCES LTD	11.3%	GENNUM CORPORATION	12.9%
12	WHEATON RIVER MINERALS LTD.	11.1%	ZARGON OIL & GAS LTD.	12.8%
13	METRO INC.	11.0%	MIDDLEFIELD BANCORP LIMITED	11.6%
14	ENCANA CORPORATION	10.1%	BRAMPTON BRICK LIMITED	10.6%
15	G S W INC.	9.6%	PASON SYSTEMS INC.	10.2%
16	PENN WEST PETROLEUM LIMITED	9.3%	AKITA DRILLING LTD.	10.1%
17	CORBY DISTILLERIES LTD.	9.2%	TUSK ENERGY INC.	10.0%
18	GILDAN ACTIVEWEAR INC.	9.2%	DENNINGHOUSE INC.	9.5%
19	HARRIS STEEL GROUP INC.	8.6%	NU-GRO CORPORATION	9.0%
20	SHELL CANADA LIMITED	8.2%	THUNDER ENERGY INC.	9.0%

EXHIBIT 3

CONSISTENT VALUE CREATORS

Consistent (Top) EVC Performers. Firms in top 20% of industry.

1999-2002 Company	Years	1995-2002 Company	Years
LEON'S FURNITURE LIMITED	4	LEON'S FURNITURE LIMITED	8
COGNOS INC.	4	COGNOS INC.	8
SCEPTRE INVESTMENT COUNSEL LTD	4	SCEPTRE INVESTMENT COUNSEL LTD	8
PASON SYSTEMS INC.	4	PASON SYSTEMS INC.	7
DUPONT CANADA INC.	4	DUPONT CANADA INC.	7
METRO INC.	4	METRO INC.	7
BRAMPTON BRICK LIMITED	4	BIOVAIL CORPORATION	7
PATHEON INC.	4	WILMINGTON CAPITAL MANAGEMENT	7
SAPUTO INC.	4	BRAMPTON BRICK LIMITED	6
C M L HEALTHCARE INC.	4	PATHEON INC.	6

CONSISTENT VALUE DESTROYERS

Consistent (bottom) EVC Performers. Firms in bottom 20% of industry.

1999-2002 Company	Years	1995-2002 Company	Years
CABLETEL COMMUNICATIONS CORP.	4.00	CANLAN ICE SPORTS CORP.	8.00
CHAI-NA-TA CORPORATION	4.00	NAPIER ENVIRONMENTAL TECHNOLO.	8.00
CANLAN ICE SPORTS CORP.	4.00	ASIA PACIFIC RESOURCES LTD.	7.00
CLEARLY CANADIAN BEVERAGE CORP	4.00	BALLARD POWER SYSTEMS INC.	7.00
ALGO GROUP INC.	4.00	F N X MINING CO. INC.	7.00
PEACE ARCH ENTERTAINMENT GROUP	4.00	STERLITE GOLD LTD.	7.00
CONOR PACIFIC GROUP INC.	4.00	ALDEAVISION INC.	6.00
INTERNATIONAL DATASHARE CORP.	4.00	ALGO GROUP INC.	6.00
ASIA PACIFIC RESOURCES LTD.	3.00	ASHTON MINING OF CANADA INC.	6.00
STERLITE GOLD LTD.	3.00	BIOSCRYPT INC.	6.00

tion that the fuel cell market would be very large.

Unfortunately, this has not yet materialized, and that final realisation has resulted in significant decline in Ballard's stock price.⁷ There seems to be some correlation between stock market reaction and value destruction.

Corporate Performance and CEO Compensation

It is a widely accepted principle that a firm's objective is to maximize shareholder wealth. It is also well-known that since there is a potential for agency problems between shareholders and managers, one way to mitigate the problem is to create incentive systems that ensure that management's goals are aligned with shareholders. In simple terms, one could argue that CEOs of value-creating firms should earn more than those of value-destroying firms. In this section, we focus on documenting CEO compensation of a subset of value/wealth-creating firms and compare that to those of value/wealth-destroying firms.

Exhibit 6 shows the summary table that documents the salary and bonuses received by consistent value and wealth creators and destroyers over the period 1995 to

2002. More specifically, the first row in that exhibit shows that there were 13 firms that destroyed shareholder wealth for at least six of the eight years under consideration for which we have data for salary and bonuses for years 2000, 2001 and 2002. The average CEO salary over the three-year period was \$289,977, and the average bonus was 20.9% with one CEO receiving a bonus as high as 86.4% of his salary. We show these summary results for 13 consistently wealth-destroying firms, nine consistently wealth-creating firms, 20 consistently value-destroying firms and 16 consistently value-creating firms.

Results indicate that, on average, there is a significant difference in average salaries between value/wealth destroyers and creators to the tune of 200% to 300%. The value/wealth creators also earn a significant percentage of their salary in bonuses. Although there are one or two companies who give a small bonus even with consistent superior performance, on average the compensation committees of the board seem to distinguish between superior performance and inferior performance. Also, it is quite possible that if stock options were to be awarded to

CORPORATE PERFORMANCE AND CEO COMPENSATION

Average and median values and percentages are based on those companies where data for both salary and bonuses are available for individual years. The numbers exclude stock options and thus potentially underestimate the total compensation earned by value/wealth creating firms.

Over the Period 1995-2002	Average Salary 2000-2002	Average percent bonus (if received)	Minimum percent bonus (if received)	Maximum percent bonus (if received)	# with bonuses
Wealth destruction # companies = 13	\$289,977	20.92%	0.83%	86.38%	10 of 13
Wealth creation # companies = 9	\$928,943	300.1%	1.34%	1212.0%	8 of 9
Value destruction # companies = 20	\$214,487	24.48%	3.93%	82.35%	16 of 20
Value creation # companies = 16	\$419,950	77.58%	7.52%	245.99%	16 of 16

CEOs, the consistent performers would benefit even further. These results indicate there is a high level of congruence between the salary/bonus structure and performance.

Conclusion

Based on the disappointing stock market performance from 1999 to 2002, there has been increasing attention to business fundamentals and corporate performance. In parallel, we have seen many initiatives by regulators, accounting associations and stock exchanges to improve corporate governance and reduce agency costs that, in turn, would lead to better corporate behaviour and performance.

Our results indicate that there is a lot more room in the Canadian corporate sector to improve corporate performance. Over half of the publicly-listed companies in our sample fail to generate returns over and above their cost of capital. Almost one-third of the companies generated operating losses. There seems to be little change in these percentage numbers over the last eight years. Moreover, many value-creating firms are in sectors whose performance depends on commodity prices that are determined by world markets.

We also have a select few firms which are consistent creators or destroyers of value. There is an indication that investors are not forgiving of firms who destroy value however, they do not seem to reward the consistent value creators in a corresponding fashion. This may indicate that Canadian investors have not used past superior historical performance as an indicator of continued success in the future. Thus, considerable investor relations challenges exist for these consistent value-creating companies.

Our results on CEO compensation show that, on average, the creators of value earn almost three times that of the destroyers of value and wealth. This obser-

vation may indicate that there indeed is a performance-based reward system in place for superior performers and that these managers are well-compensated for their efforts in creating value and wealth for shareholders.

Our results also suggest that stock market valuations are becoming more reflective of the underlying value performance of companies, and that investors may have learned not to put enormous faith in the promised prospects of the firm while placing a value on its share price. How long this rationality will last is anyone's guess. The recent news about the potential valuation of the upcoming Google IPO and the implicit multiple of 45 or so on forward-looking operating earnings for Nortel may lead one to believe that investors may be returning to the excess valuation world that we saw in the dot-com era and ignoring the underlying value fundamentals. ■

1. The wealth creation reflects stock market based performance whereas a positive (negative) value creation performance reflects the ability of corporate management to earn a return on capital that exceeds (is less than) cost of capital. Please refer to "Keeping Score", *Canadian Investment Review*, Summer 1996, pp. 19-31, "Updating the Corporate Scorecard", *Canadian Investment Review*, Winter 1996/97, pp. 19-24, Wealth and value Creation in Canada, *Canadian Investment Review*, Fall 1997, pp. 24-28 and Fall 1998, pp. 24-27. These papers also define and describe the details of the methodology and conceptual issues.
2. Due to restriction on the size of the article, a detailed list of the value creating and wealth creating companies is available upon request to the author vjog@crgroup.com or vjog@ccs.carleton.ca.
3. These observations may also imply that market capitalisations of these firms declined and impacted shareholders negatively.
4. In one sense this observation is not entirely fair since there are many companies in the same sector that destroyed value.
5. It is unfortunate that DuPont Canada was bought out by its U.S. parent and is no longer available for investment.
6. Ballard Power also invested heavily in R&D. We have adjusted its NOPAT to account for its R&D by amortising the annual R&D expense over a three-year period and adjusting the capital base accordingly. However, its R&D program has yet to deliver profitable growth.
7. After reaching a high of \$165 or so in year 2000, Ballard now trades at under \$20 (At publication time).