THE OPERATIONAL AND STOCK PERFORMANCE OF SPINOFFS AND CARVEOUTS: SOME EVIDENCE FROM CANADA

Raymond A. K. Cox*, Adishwar V. Jain**

Abstract

The purpose of this paper is to examine the financial characteristics and the operating performance of Canadian domiciled parents, before and after a demerger, including an inspection of the financial profile of the divested subsidiaries subsequent to the spinoff or carveout. Additionally, the shareholder wealth impact on parents that demerge is studied including the share volume trading activity.

Keywords: stock performance, spinoffs, Canada

**Contact Author: Professor of Finance, Faculty of Business & IT, University of Ontario Institute of Technology, Ontario, L1H 7K4, Canada, 905-721-8668 Ext. 2878, raymond.cox@uoit.ca*
***Assistant Professor of Finance, Department of Finance & Law*
Central Michigan University, Mt. Pleasant, Michigan 48859, USA

Introduction

Much research has examined the effects of mergers and acquisitions on firm's operating performance and the impact on the return and risk to the stockholders as well as the change in corporate governance and ownership. The mirror image of a merger is a demerger whereby a firm divests a division or subsidiary by the means of a spinoff or carveout. In a spinoff the shareholders of the parent firm receive an equal proportion of shares in an entity that is being spun off. The parent firm receives no cash nor other receipt of value. At least at the beginning the shareholders are the same for both the parent and the spinoff although the two corporations are legally separate companies. In a carveout part or all of the shares of the subsidiary are sold for cash thereby providing capital to the parent and also causing a divergence in the share ownership structure between the parent and the subsidiary. With both a spinoff and carveout the parent and the divested subsidiary have a different board of directors and management teams. Furthermore, a carveout incurs substantial flotation costs from investment bankers including greater scrutiny for proper financial disclosure from government regulators, such as the Securities Exchange Commission (SEC) in the United States (US) or the Ontario Securities Commission (OSC) for Toronto Stock Exchange (TSX) listed stocks and Ontario incorporated public firms.

The purpose of this paper is to examine the financial characteristics and the operating performance of Canadian domiciled parents, before and after a demerger, including an inspection of the financial profile of the divested subsidiaries subsequent to the spinoff or carveout. Additionally, the shareholder wealth impact on parents that demerge is studied including the share volume trading activity.

Literature Review

The seminal works of Schipper and Smith (1983), Hite and Owers (1983) and Miles and Rosenfeld (1993) provide empirical evidence that voluntary spinoffs generate a significant positive stock price reaction surrounding the announcement date. The sources of the gains are attributed to: (1) wealth transfers from bondholders, (2) relaxed regulatory constraints, (3) productivity increases from reducing the number and diversity of transactions under one management, and (4) the recontracting of the parent and divested subsidiary in which each has an advantage.

Cusatis, Miles and Woolridge (1993) investigate the long-run (3 years) operating performance of parents and their spinoffs finding significantly positive stock returns. A high incidence of takeovers for these companies is also noted.

Michaely and Shaw (1995) studied how firms choose between a spinoff and equity carveout when divesting assets. They show that riskier, more leverage, less profitable firms choose spinoffs. This result is due to the greater scrutiny (SEC oversight in the US) of carveouts versus spinoffs and management's need for cash as the major motives behind the divestiture choice decision.

Khan and Mehter (1996) present data that suggests firms will voluntarily divest a division experiencing a decline in marginal returns when the firm suffers from high operating costs and/or excessive financial costs. Otherwise, if a unit has low operating risk (low growth and stable earnings) it will divest through a selloff.

Johnson, Klein and Thibodeaux (1996) discover that spinoffs have a peculiar set of financial characteristics such as greater size; more highly levered and post greater asset turnover and lower real asset growth than their competitors. Subsequently, the spinoff experience substantial increases in real asset growth and cash flow margin on sales.

Krishnaswami and Subramanian (1999) analyze the information hypothesis that the separation of a firm's divisions through a spinoff augments value because it mitigates information asymmetry. They find firms involved in spinoffs have higher levels of information asymmetry and that the informational problems decrease significantly after the spinoff. The gains around spinoffs are positively related to the degree of information asymmetry. Jansseens de Vroom and van Frederikslust (2001) examine worldwide spinoff announcements finding positive stockholder wealth gains around the event date.

Mehrotra, Mikkelson and Partch (2003) explored two-step spinoffs where the parent initially sells part of the equity through an Initial Public Offering (IPO) followed up by a spinoff of the remaining equity stake. The results were mixed, across time, suggesting two-step spinoffs experience greater stockholder returns versus one-step spinoffs. However, the outcome was transient and not sizeable enough to justify the additional costs of having the initial carveout. Ruta (2001) looked at the long-term stock market performance of U.S. parents who spunoff subsidiaries in the 1990s. He found a positive relationship between a parent's debt ratio and percentage of insider ownership and post spinoff abnormal stock return performance.

Huson and MacKinnon (2003) studied the trading environment of parents of spinoffs showing increased daily residual return variance, transactions costs and the price impact of trades. The strongest outcomes were associated with parents divesting unrelated subsidiaries thereby sharpening the focus of the firm. Gertner, Powers and Scharfstein (1999) considered the internal capital market of conglomerates discovering an allocation of capital evenly divided among the divisions of the firm regardless of investment return and risk. Spinoff entities in higher growth industries experienced an increase in capital expenditures post-spinoff relative to the pre-spinoff time period. The results were stronger for spinoffs unconnected to the parent's line of business. Veld and Veld-Merkoulova (2001) analyzed spinoffs with a European sample. They found for parents a greater abnormal return for focus-increasing spinoffs versus non-focus increasing spinoffs. Nonetheless, this significant effect disappears when controlling for the size and book-to-market variables.

Boabang (2003) investigated instalment receipts IPOs. IPOs are partial carveouts combined with going public. An instalment receipt (IR) IPO is a security representing one share of stock but that is only partially paid for. What remains to be paid is specified in amount and due date (it can be a 2 instalment, 3 instalment, et cetera receipt). The owner of the IR has all the rights of a shareholder, i.e. full voting and dividend and residual value rights. The issuance of IRs is associated with considerable positive short term and long term returns in the underlying stock. In addition, stock performance results are positive correlated to the reputation of the underwriter.

An interesting anti-spinoff analogy is that of Brown, Dittmar, and Servaes (2005) who studied the performance of roll-ups (multiple small business entities are consolidated into a single public traded company). Initially there is a favourable stock market reaction but in the long-run they underperform numerous bogeymen as well as security analyst forecasts. These findings were partly explained by the executive turnover and disengagement in the subsequent governance of the corporation not participating neither as a shareholder nor a director.

The stock market performance of firms divesting assets does matter as Lehn and Zhao (2006) found an inverse relationship between bidder returns and the probability of chief executive officer (CEO) turnover for acquirer firms. This finding is extrapolated from mergers research to that of demergers whereby poor execution of a divestiture as indicated by the stock performance should results in the decommissioning of the CEO. Aggaarwal and Samwick (2003) develop a contracting model demonstrating managers would enact spinoffs and carveouts in response to changes in private benefits even in the face of increased risk exposure. Schoar (2002) presents evidence that firms which gain additional production capacity through acquisition afterwards suffer a decline in productivity credited to squandering economic rents by way of heightened wages ergo demergers cause companies to elevate their efficiency.

Dittmar (2004) shows that spinoffs have less financial leverage than their parent firm but comparable to other similar firms. The capital structure of spinoffs is determined by their growth opportunities rather than their profitability supporting the tradeoff theory of capital structure. Dittmar and Shivdasani (2003) showed that parents reduced the diversification discount and amplified profitability after a divestiture. These results support the financing and corporate focus hypotheses for divestitures.

Long term stock gains to acquirers was shown by Loughran and Vijh (1997) to be dependent on the form of payment. Firms that executed acquisitions through stock mergers earned negative excess returns versus firms that consummated the merger through a cash tender offer garnering positive returns. This is thought to be similar to spinoffs (new stock issued) and carveouts (cash received for shares). Loughran and Ritter (1997) studied the operating performance of seasoned equity offerings (SSO) which is similar to a partial carveout. Their results indicated an improvement in operating performance prior to the SSO but subsequently a deterioration. A

distinguishing characteristic of issuers of SSOs was high growth relative to non-issuers.

Data, Methodology and Hypotheses

Using *Dow-Jones News Retrieval*, all reports by Canadian parent firms announcing a spinoff or equity carveout during the eleven year (1989-1999) period are gathered. The news report is read to determine the parent and demerged subsidiaries, announcement date, whether it is a spinoff or carveout and other details. Spinoff terms are obtained from the *Financial Post Dividend Record* (spinoffs are classified as extra dividends). The terms for equity carveouts are compiled from the *Financial Post Directory of New Issues*. For the event window ten days before and after the initial spinoff or carveout announcement a search for other news releases by or on those parents is conducted to ascertain if confounding events have occurred such that disentanglement of the events would be problematic. If so then the firm is deleted from the sample. Daily stock returns and share volume are collected from *Datastream* and *Yahoo* (online). Financial statement (accounting) data is gathered from *Standard and Poor's Compustat* and benchmark data from *Canadian Benchmarks: Averages*. Finally, there is uncertainty as to the consummation of a demerger following the initial announcement made by the corporation. The uncertainty as to the demerger execution arises from the need for approval from the Canadian federal government along with a majority of the stockholders voting to approve the divestiture. In addition, for equity carveouts (as opposed to spinoffs) the securities regulator needs to approve the issue. For this sample that was always the Ontario Securities Commission as all the stocks were listed on the Toronto Stock Exchange. The consequence of these filters was a final sample size of 27.

The *Microsoft Excel* spreadsheet program was used to store and analyze the data as well as the *SPSS* statistical program.

Standard event study methodology was employed using daily stock returns to discover the impact of spinoff and carveout announcements on the parent stockholder returns. That is, the market model version of the Capital Asset Pricing Model (CAPM) was used to estimate the alpha and beta of each parent's stock during the 200 day estimation period starting 241 days (t = -241) prior to the announcement (going to t = -40):

$$R_{i,t} = A_i + B_iR_{m,t} + E_{i,t} \quad (1)$$

where $R_{i,t}$ is the return of stock i on day t, A_i is the alpha parameter from the regression of stock i, B_i is the beta parameter from the regression of stock i, $R_{m,t}$ is the return of the market (TSX Composite Index) on day t, and $E_{i,t}$ is the error term for stock i on day t.

Abnormal returns are calculated by comparing the actual versus the predicted returns from Equation 1 (A_i and B_i are constant and extrapolated into the event window period):

$$E_{i,t} = R_{i,t} – (A_i + B_iR_{m,t}) \quad (2)$$

where $E_{i,t}$ is the daily residual return of stock I at time t denoting the excess return, i.e. the measure of abnormal performance.

In keeping with the evidence of Schipper and Smith (1983) it is hypothesized that the stock returns will significantly increase in the event window of the divestiture announcement.

Hypothesis I: Positive Stock Returns for Parents Announcing a Divestiture.

Harris and Gurel (1986) utilized a technique to ascertain abnormal trading volume effects for firms added to the Standard and Poor's 500 Index. We examine the parents, who undergo a divestiture, for unusual trading volume surrounding the announcement period by computing:

$$MVR_t = 1/N \sum VR_{j,t} \quad (3)$$

where $V_{j,t}$ and $V_{m,t}$ are the trading volumes of security j and of the total TSX share volume on day t respectively, and V_j and V_m are the average trading volumes of the security and of the total TSX for the estimation period preceding the announcement (t = 0). $VR_{j,t}$ is the volume ratio (V with an expected value of 1 if there is no change in the volume during the event window. MVR_t is the mean volume ratio.

In addition to the abnormal volume technique of Harris and Gurel (1986) we apply the method developed by Ajinkwa and Jain (1989) and used by Collins, Wansley and Robinson (1995). To begin with we conduct the following regression:

$$V_{j,t} = A_j + B_jV_{m,t} + E_t \quad (4)$$

where $V_{j,t}$ is the natural log of one plus the daily volume on day to of stock j, A_j and B_j are the alpha and beta coefficients for stock j estimated in the regression with the independent variable $V_{m,t}$ (the natural log of one plus the daily volume on day t of the TSX) and E_t as the error term.

The error terms are assumed to possess autocorrelation with the process:

$$E_{j,t} = p_jE_{j,t-1} + u_{j,t} \quad (5)$$

The abnormal trading volume ($AV_{j,t}$) is:

$$AV_{j,t} = (V_{j,t} – p_jV_{j,t-1}) – (A_j(1 – p_j) + B_j(V_{m,t} – p_jV_{m,t-1})) \quad (6)$$

The average abnormal daily volume (AAV) is:

$$AAV = 1/N \sum AV_{j,t} \quad (7)$$

And the cumulative abnormal volume (calculated similar to the cumulative abnormal return) is:

$$CAR_{t1,t2} = \sum AAV_t \quad (8)$$

We theorize that there will be attention brought to the parent due to the announcement of the divestiture. This attention will be new information to the market signifying a sharpened focus and incentive driven managerial compensation which will spur an increase in trading volume. Furthermore, a tax favour may arise from the conception of the spinoff. When the spinoff is conceived the parent share price drops

by the amount of the valuation of the spinoff share price. This action reduces the tax basis of the parent share and decreases the potential capital gains thereby bringing notice to the parent and will be reflected by magnifying trading volume. Thus, hypothesis 2 states:

Hypothesis 2: Positive Trading Volume for Parents Announcing a Divestiture.

The operating performance of parents before and after the divestiture is examined for changes. In yearly increments the pre-announcement period starts two years prior to the divestiture news and the post-announcement period goes to two years after the event. Each grouping (parents and subsidiaries, parents only, subsidiaries only) is compared to a Canadian benchmark in a matched pairing. The methodology followed is identical to that expounded by Loughran and Ritter (1997). Due to limited degrees of freedom spinoffs and carveouts were not separately checked. Numerous metrics from the financial statements are calculated to contrast the financial characteristic peculiarity of the parents and divested subsidiaries as well as to differentiate the expected improved operating performance. These measures include: (1) Sales, (2) Assets, (3) Tangible Assets to Assets, (4) Market Value of Equity, (5) Market to Book Value of Equity, (6) Long-term Debt to Assets, (7) Long-term Debt to Market Value of Equity, (8) Earnings Before Interest, Taxes, Depreciation and Amortization to Sales, (9) Earnings Before Interest and Taxes to Sales, (10) Capital Expenditures to Sales, and lastly (11) Total Asset Turnover. An augmented operating performance would be represented by all theses gauges increasing over time and being superior to the benchmark. Thus, the hypotheses with respect to operating performance are:

Hypothesis 3: Operating Performance of Parent Firms Divesting Subsidiaries is Superior to Benchmark.

Hypothesis 4: Operating Performance of Divested Subsidiaries is Superior to Benchmark.

Hypothesis 5: Operating Performance of Parents Divesting Subsidiaries Strengthens Over Time.

Hypothesis 6: Operating Performance of Divested Subsidiaries Strengthens Over Time.

Results

The results for the tests on the first hypothesis, i.e. positive stock returns for parents announcing a divestiture are shown in Table 1. Panel A presents the abnormal returns on a daily basis for day -5 to day +5. There appears to be no leakage of information preceding the announcement as the t-statistics are insignificant. On the day of the announcement of the spinoff or carveout the parents, on average, experience a negative abnormal return followed by a positive excess return on day +1. The sign of the abnormal return reverses again on day +2 to a negative abnormal return and switches back to a positive abnormal return on day +3 before changing back to negative excess returns on days + and +5. Nevertheless, on each day the excess returns are not statistically significant. Upon examination of the cumulative abnormal returns as reported in Panel B of Table 1 the event window combinations starting at day 0 and ending in days +1, +2, +4,+5 all have a negative sign. Only the day 0 to +3 event window has a positive CAR. Even so, none of the CARs are statistically significant when viewing the t-statistics. Thus, hypothesis 1, positive returns for parents announcing a divestiture, cannot be accepted. These nonpositive stock returns for parents announcing a divestiture are in contrast to Schipper and Smith (1983), Hit and Owers (1983) and Miles and Rosenfeld (1993) studying American parents who spunoff subsidiaries. Furthermore, these results with the Canadian sample are contrary to Janseens de Vroom and van Frederikslust (2001) examining a worldwide sample and Veld and Veld-Merkoulova (2001) analyzing a European sample. This finding is attributed to the extended process of approving spinoffs and carveouts in Canada. That is, consummation of the demerger is problematic as the deal still needs to be approved separately by the government and the stockholders. The stock market realizes the uncertainty of approval and does not impound into the stock price the full impact of the divestiture because of this doubt.

To test for the second hypothesis, positive trading volume for parents announcing a divestiture, we look at Table 2. The empirical evidence is somewhat mixed depending on the technique used to determine abnormal volume. When the Harris and Gurel (1986) MVR technique is employed there is some support in Panel A for increased volume for parents announcing divestitures. For days t = +1,+3, +4,+5 the MVR is greater than one. Furthermore, the t-statistics for days +1 and +3 are 1.13 and 1.26 respectively. However, these t-statistics are not significant at an alpha level of 5%. In fact, only on day 0 do a majority of the parent firms have an MVR greater than one. The product of Panel B which makes use of the Ajinkwa and Jain (1989) abnormal volume regression technique indicates only on days +1 and +2 is the sign positive. Otherwise, the abnormal volume coefficient is negative (days 0,+3,+4,+5). Moreover, the cumulative abnormal volume is negative for each combination of event windows from time 0 to +5. However, all the abnormal volume and cumulative abnormal volume t-statistics are not significant. Hence, we cannot accept the second hypothesis that there is a positive trading volume for parents announcing a divestiture. Again, these results may be due to the riskiness of the demerger being approved by the government and stockholders.

The operating performance of parent firms is examined and presented in Table 3. We test for the third hypothesis which states that operating performance of parent firms divesting subsidiaries is superior to the benchmark. Clearly, parent firms are different from the benchmark in Canada with respect

to greater sales, assets, intangible assets and market value of equity. The stock market in Canada contains numerous small firms alongside big conglomerate firms. Obviously, big conglomerate firms are those that have subsidiaries which are candidates to be divested in a spinoff or carveout. Inspecting the financial ratios for operating performance it is evident that parents, compared to the benchmark, improve their market-to-book ratio in the year of announcement (t = 0) and beyond (t = +1 and +2). However, while the t-statistics are high at 1.61, 1.26 and 1.61 for years 0, +1,+2 respectively they are still statistically insignificant at an alpha level of 5%. In conjunction with hypothesis 5, operating performance of parents strengthen over time, it seems that the initial strengthening of the parents versus the benchmark beginning at t = -1 and reinforced at t = 0 is sustained at t = +1 and t = +2 but not more so. The financial leverage of parents is considerably greater than the Canadian benchmark and soars in the year after divesting scanning the long-term debt to market value of equity ratio as opposed to the book ratio of long-term debt to total assets. This may be ascribed to the equity value of the expunged subsidiary. But this elevated financial leverage subsides dramatically in year +2. The finding that the spinoffs have greater financial leverage than industry benchmarks is similar to the evidence given by Michaely and Shaw (1995) using U. S. data. The profitability of the parent when considering the EBITDA to Sales and the EBIT to Sales ratios is superior relative to the benchmark. However, there is no discernible trend of statistical significance. The greater profitability of parents carrying out divesting is the opposite of that reported by Michaely and Shaw (1995).The increased investment spending of parent firms, as denoted by capital expenditures to sales, begins the year before the divestiture and continues to build up in the demerger year and year thereafter albeit trailing off somewhat in year +2 but continuing to be statistically significantly higher than the benchmark. Lastly, the Total Asset Turnover data indicate a reduction in efficiency starting the year before the divestiture announcement and persisting to be inferior in contrast to the benchmark. The downward drift is not monotonic. Even so, it is not statistically significant at the alpha level of 5%. In summary there is support to accept the third hypothesis that the operating performance of parent firms divesting subsidiaries is better than the benchmark. This conclusion is thought to be caused by the increased focus of management and the compensation recontracting which provides fiscal incentives for heightened managerial performance. Nonetheless, there is only weak support at best to accept hypothesis 5 which states that the operating performance of parents strengthens over time.

We scrutinize Table 4 to discern the efficacy of hypothesis 4, operating performance of divested subsidiaries is superior to the benchmark, and hypothesis 6, operating performance of divested subsidiaries strengthens over time. Table 4 vividly shows that spinoffs and carveouts have greater sales, assets, intangible assets and market value of equity distinguishing themselves from the benchmarks and similar in sign to the parents versus the benchmark but not to such an extent on an absolute basis. The increased concentration of management energy on the divestitures is somewhat fuzzy when observing capital expenditures to sales. A substantial dip in the year after the divestiture occurs but then the ratio bounces back I year +2 and is statistically significant at the 10% alpha level. The market to book value ratio displays a steady decline in the performance of the spinoffs and carveouts. Instead of the divestitures giving free reins to the executives to manage the firm better than the governance by the parent the opposite seems to be true. Market to book value commences at 2.374 in year 0 and then declines to 1.846 and 1.027 in years +1 and +2 respectively. While none of these figures are statistically significant relative to the benchmark the time trend is significant. Furthermore, the financial leverage of the demerged entity, on average, rises dramatically. At the inception the long-term debt to market value of equity ratio is 3.3% climbing to 15.9% and then sagging to 13.9%. These statistics are not significant different than the benchmark but the t-statistic for the sample to benchmark comparison goes from -0.66 to 1.29 between year 0 and +1, this disparity is statistically significant. Moving to the profitability, assessed by EBITDA to sales and EBIT to sales, it is apparent that divestitures are initially superior to the benchmark and enjoy an uptick in year +1 if statistical significance in this metric. Nonetheless, this pre-eminent profitability plunges in year +2. Reviewing the efficient management of assets, appraised by the total asset turnover, spinoffs and carveouts slide down in performance in the 3 year observation period compared to the benchmark. Moreover, the deterioration in the total asset turnover between year +1 and +2 is statistically significant. This medley of operating performance results for spinoffs and carveouts fails to bolster acceptance of hypothesis 4 and 6. That is, divested subsidiaries do not have better operating performance nor do they enhance their performance over time. In fact, parents may be divesting subsidiaries with bleak prospects as opposed to setting them free with infused focus and incentives. The empirical evidence of operating results dovetails with that from U.S. samples. In a dynamic sense initially the divestitures have less financial leverage than the parents as Dittmar (2004) showed. Afterwards the financial leverage rises comparable to the facts presented by Johnson, Klein and Thibodeaux (1996).

Summary

This paper presents empirical evidence on the effects of spinoffs and carveouts to the parents and the divested subsidiaries. Using a sample of Canadian

firms announcing a spinoff or carveout between 1989 to 1999 it appears that parent companies do not realize abnormal stock returns in the short-run. Furthermore, no statistically significant data was presented proving that an abnormal volume of shares was treaded in the stock of the parent surrounding the time of the event. However, facts are brought forth to support the contention that parent corporations have superior operating performance compared to a benchmark although this excellent achievement does not persist to soar. Nevertheless, the great performance of the parents does not carryover to the divested subsidiaries who initially have a mixture of good operating performance relative to the benchmark but which subsequently abate within two years of the divestiture.

Future research may explore how the capital markets can a priori determine the motive of parents who divest subsidiaries so as to distinguish prospective profitable firms. The sample in this paper was collected from Canada, other stock markets and in particular emerging markets may have diverse experiences for corporations who carry out spinoffs and carveouts.

References

1. Aggarwal, R. K. and A. A. Samwick, "Why do managers diversify their firms? Agency reconsidered," *Journal of Finance*, 58 (2003), 71-118.
2. Ajinkwa, B. B., and P. C. Jain, "The behaviour of daily stock market trading volume," *Journal of Accounting and Finance*, 11 (1989), 331-359.
3. Alexander, G., G. Benson and J. Kampmeyer, "Investigating the valuation effects of announcements of voluntary corporate sellofs," *Journal of Finance*, 39 (1984), 503-517.
4. Aron, D., "Using the capital market as a monitor: Coporate spinoffs in an agency framework," *Rand Journal of Economics*, 22 (1991), 505-518.
5. Berger, P. and E. Ofek, "Bustup takeovers of value-destroying diversified firms," *Journal of Finance*, 51 (1996), 1175-1200.
6. Boaban, F., "The IPOs of Canadian firms via instalment receipts: The opening performance and implication for the short-run efficiency of the Canadian market," *Canadian Journal of Administrative Science*, 20 (2003), 224-233.
7. Brown, K. C., A. Dittmr, and H. Servaes, "Corporate governance, incentives and industry consolidation," *Review of Financial Studies*, 18 (2005), 241-270.
8. Brown, S. J. and J. B. Warner, "Measuring security price performance," *Journal of Financial Economics*, 8 (1980), 205-258.
9. Brown, S. J. and J. B. Warner, "Using daily stock returns," *Journal of Financial Economics*, 14 (1985), 3-31.
10. Burch, T. and V. Nanda, "Divisional diversity and the conglomerate discount: The evidence from spinoffs," *Journal of Financial Economics*, 70 (2003), 69-9.
11. Clarkson, P. M. and J. Merkley, "Ex ante uncertainty and the underpricing of initial public offerings: Further Canadian evidence", *Canadian Journal of Administrative Sciences*, 11 (1994), 54-67.
12. Collins, M.C., J.W. Wansley and B. Robinson, "Price and volume effects associated with the creation of Standard and Poor's MidcapIndex," *Journal of Financial Research*, 18 (1995), 329-350.
13. Comment, R. and G. Jarrell, "Corporate focus and stock returns," *Journal of Financial Economics*, 37 (1995), 67-86.
14. Cox, R. A. K., "Mergers and Acquisitions: A Review of the Literature", *Journal of Corporate Ownership and Control*, Vol. 3 (2006), 56-60.
15. Cusatis, P., Miles, J.A. and J. P. Woolridge, "Restructuring through spinoffs: The stock market evidence," *Journal of Financial Economics*, 33 (1983), 293-311.
16. Dittmar, A. and A. Shivdasani, "Divestitures and divisional investment policies," 58 (2003), 2711-2743.
17. Dittmar, A., "Capital structure in corporate spinoffs," *Journal of Business*, 77 (2004), 9-43.
18. Gilson, S. C., P. M. Healy, C. F. Noe, and K. G. Palepu, "Analyst Specialization and Conglomerate Stock Breakups," *Journal of Accounting Research*, 39 (2001), 565-583.
19. Habib, M. A., D. B. Johnsen, and N. Y. Nail, "Spinoffs and Information," *Journal of Financial Intermediation*, 6 (1997), 153-176.
20. Harris, L. and E. Gurel, "Price and volume effects associated with changes in the S & P 500 list: New evidence for the existence of price pressures," *Journal of Finance*, 41 (1986), 815-829.
21. Hite, G. L. and J. E. Owers, "Security price reactions around corporate spinoff announcements," *Journal of Financial Economics*, 31 (1983), 409-436.
22. Huson, M. R. and G. MacKinnon, "Corporate spinoffs and information asymmetry between investors," *Journal of Corporate Finance*, 9 (2003), 481-503.
23. Janssens de Vroom, H. and R. A. I. Van Frederikslust, "Shareholder wealth effects of corporate spinoffs," Working Paper, 2001.
24. John, T. A., "Optimality of spinoffs and allocation of debt," *Journal of Financial and Quantitative Analysis*, 28 (1993), 139-160.
25. Johnson, S. A. Klein, D. P. and V. L. Thibodeaux, "The effects of spinoffs on corporate investment and performance," *Journal of Financial Research*, 19 (1996), 293-315.
26. Khan, A. Q. and D. R. Mehta, "Voluntary divestiture and the choice between selloffs and spinoffs," *Financial Review*, 31 (1996), 885-928.
27. Krishnaswami, S. and V. Subramaniam, "Information asymmetry, valuation, and the corporate spinoff decision," *Journal of Financial Economics*, 53 (1999), 73-112.
28. Lehn, K. M. and M. Zhao, "CEO turnover after acquisitions: Are bad bidders fired?," *Journal of Finance*, 61 (2006), 1759-1811.
29. Linn, S. C. and M. S. Rozeff, "The effect of voluntary spinoffs on stock prices: The agency hypothesis," *Advances in Financial Planning and Forecasting* 1 (1985), 265-292.
30. Loughran, T. and A. M. Vijh, "Do long-term shareholders benefit from corporate acquisitions?" *Journal of Finance*, 52 (1997), 1765-1790.
31. Loughran, T. and J. R. Ritter, "The operating performance of firms conducting seasoned equity offerings," *Journal of Finance*, 52 (1997), 1823-1850.
32. Maxwell, W. F. and R. P. Rao, "Do spinoffs expropriate wealth from bondholders," 58 (2003), 2087-2108.

33. McConnell, J., M. Ozbilgin and S. Wahal, "Spinoffs, Ex-Ante," *Journal of Business*, 74 (2001), 745-780.
34. Mehrotra, V., and W. Mikkelson, and M. Partch, "The design of financial policies in corporate spinoffs," *Review of Financial Studies*, 16 (2003), 1359-1388 .
35. Michaely, R. and W. H. Shaw, "The choice of going public: Spinoffs vs. carveouts," *Financial Management*, 24 (1995), 5-21.
36. Miles, J. A. and J. D. Rosenfeld, " The effect of voluntary spinoff announcements on shareholder wealth," *Journal of Finance*, 38 (1983), 1597-1606.
37. Parrino, R. "Spinoffs and wealth transfers: The Marriott case," *Journal of Financial Economics*, 43 (1996), 241-274.
38. Ruta, S., "An examination of predictors of long term equity performance after corporate spinoffs in the 1990s," *Working Paper, Stern School of Business, New York University*, 2001.
39. Schipper, K. and A. Smith, "Effects of recontracting on shareholder wealth" The case of voluntary spinoffs," *Journal of Financial Economics*, 12 (1983), 436-467.
40. Schoar, A., "Effects of corporate diversification on productivity," *Journal of Finance*, 57 (2002), 2379-2403.
41. Vijh, A. M., "The spinoff and merger ex-date effects," *Journal of Finance*, 49 (1994), 581-609.

Appendices

Table 1. Abnormal Stock Returns of Parents Announcing a Divestiture

Panel A

Daily Abnormal Returns

Day	Mean	t-statistic
-5	-0.004	0.165
-4	-0.004	-0.178
-3	0.000	-0.010
-2	0.001	0.067
-1	0.006	0.210
0	-0.004	-0.0219
1	0.004	0.130
2	-0.001	-0.105
3	0.004	0.104
4	-0.002	-0.089
5	-0.003	-0.143

Panel B

Cumulative Abnormal Returns

Event Window	CAR	t-statistic
0	-0.004	-0.219
0 to 1	0.000	-0.063
0 to 2	-0.001	-0.097
0 to 3	0.003	0.003
0 to 4	0.001	0.038
0 to 5	-0.002	-0.074

Table 2. Abnormal Volume for Parents Announcing a Divestiture

Panel A

Mean Volume Ratio Technique (Harris and Gurel (1986))

Day	Mean Volume Ratio	t-statistic	Percent >1
0	0.93	-0.49	52.2
1	1.13	0.56	47.8
2	0.88	-0.74	34.8
3	1.15	0.58	34.8
4	1.07	0.35	43.5
5	1.04	0.19	30.4

Panel B
Abnormal Volume Regression Technique (Ajinkwa and Jain (1989))

Day	Abnorm Volume	t-statistic	Cumulative Abnormal Volume 0 to day t	t-statistic
0	-0.248	-0.034	-0.248	-0.034
1	0.135	0.002	-0.112	-0.025
2	0.081	0.108	-0.032	-0.077
3	-0.569	-0.236	-0.601	-0.157
4	-0.349	-0.066	-0.949	-0.099
5	-0.296	-0.051	-1.246	-0.061

Table 3. Median Accounting Figures and Ratios Parents v. Canadian Benchmark
Panel A

Year	Sales $Million	Assets $Million	Tangible Assets %	Market Value $Million	Capital Expenditures To Sales%
-2	3295.7	3134.6	98.5	2365.8	8.1
-1	3142.2	4532.22	98.6	3515.4	12.3
0	2746.5	4806.2	98.6	4223.5	13.5
1	3173.1	8848.5	97	3753.7	15.7
2	3218.6	9418.5	96.8	4963.5	12.8

t- statistics

-2	4.29	4.09	-3.62	4.11	-1.03
-1	4.37	4.56	-3.72	4.38	2.17
0	4.44	4.6	-3.72	4.46	2.73
1	4.46	5.1	-3.33	4.35	3.14
2	4.49	5.22	-3.12	5.2	2.81

Panel B

Year	Market To Book Value	Long-Term Debt to Assets%	Long-Term Debt to Market Value%	EBITDA To Sales%	EBIT To Sales%	Total Asset Turnover
-2	1.523	30.8	44.2	18.8	12.3	0.752
-1	1.781	29.7	43.8	18.7	11	0.675
0	1.728	22.8	43.5	19.7	11.6	0.468
1	1.412	28.1	64.9	19.3	12.2	0.49
2	1.443	26.6	48.3	19.3	10.5	0.548

t-statistics

-2	-0.06	3.97	4.05	2.97	2.66	0.91
-1	0.22	3.7	3.87	3.62	3.35	-0.36
0	1.61	3.62	3.52	3.54	3.47	-1.11
1	1.26	3.77	3.71	3.31	2.89	-1.17
2	1.61	4.08	3.8	3.52	3.11	-0.6

Table 4. Median Accounting Figures and Ratios Spinoffs and Carveouts v. Canadian Benchmark

Panel A

Year	Sales $Million	Assets $Million	Tangible Assets%	Market Value $Million	Capital Expenditures To Sales%
0	264.9	363.1	99.4	199	9.1
1	273.1	352.4	93.1	212.5	6.2
2	319.8	407	89.1	215.5	9.9
t-statistics					
0	2.7	2.97	-2.52	2.8	0.76
1	3.11	3.23	-2.37	2.83	-0.38
2	2.82	3.06	-2.2	3.11	1.69

Panel B

Year	Market To Book Value	Long-Term Debt To Assets%	Long-Term Debt To Market Value%	EBITDA To Sales%	EBIT To Sales%	Total Asset Turnover
0	2.374	7.2	3.3	16.8	12.7	1.022
1	1.846	10.2	15.9	17.9	10.6	0.947
2	1.027	12.8	13.9	13.5	9.2	0.473
t-statistics						
0	1.48	-0.39	-0.66	1.58	1.78	1.24
1	1.29	0.72	1.29	2.35	1.98	1.36
2	-0.78	1.41	1.26	0.86	0.63	-0.55