PARTIAL ACQUISITION OF CANADIAN COMPANIES BY DOMESTIC AND FOREIGN COMPANIES: A VALUATION ANALYSIS

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Abstract

This research examines domestic and foreign partial acquisitions in Canada and investigates the resulting returns to target shareholders. The sample of the research is Canadian companies partially acquired from 1997 to 2005. The results show significant positive abnormal returns around the announcement date, which implies rising takeover expectation in the market. They provide a signal for investors to buy stocks before the announcement. The results also reveal negative abnormal returns in the one-year post acquisition period for targets, which implies diminishing takeover expectation. It is not recommended that investors invest a large amount without existing evidence of plans for a complete takeover by the acquirer. The return difference between the targets of domestic and foreign partial acquisitions is not significant around the announcement and in the post acquisition period. This implies that the market reaction for foreign partial acquisitions is not statistically different from domestic partial acquisitions.

Acknowledgements

Table of Contents

List of Tables

List of Figures

List of Abbreviations

CAR ……...   Cumulative Average Return
BHAR ……   Buy-and-Hold Abnormal Return
AAR ……..   Average Abnormal Return
ASAR ……   Average Standardized Abnormal Return
S_{jt} ………...   Estimated Sample Standard Deviation
TSX ……...   Toronto Stock Exchange
FPA ……...   Foreign Partial Acquisition
DPA ……...   Domestic Partial Acquisition

1. Introduction

1.1 Research Background

Currently in the global market, corporate acquisition is a strategic way for companies to increase their competitive strength and to pursue benefits. When developing, an efficient company may acquire an inefficient company. Value can be increased by improving the efficiency of the target. In the past 20 years, acquisition has been one of the common strategies for a company to increase value, to consolidate diversification, and to increase investment scale.

In the field of corporate control, acquisitions attract researchers. There is a large volume of study devoted to partial acquisitions. The literature demonstrates the valuation effects of partial acquisitions. It is believed that there are significant positive abnormal returns for the target surrounding the partial acquisition announcement (Akhigbe, Martin, & Whyte, forthcoming; Amoako-Adu & Smith, 1993; Choi, 1991; Holderness & Sheehan, 1985; Madden, 1981; Mikkelson & Ruback, 1985; Rosenstian, 1989; Torabzadeh & Dube, forthcoming). The related reasons that the target's price goes up around the announcement date include expectations such as monitoring of management, management improvement, or subsequent full takeover.

Rosenstein (1989) suggests that three possible motives for partial acquisitions are passive investment, monitoring of management, and wealth transfer. Torabzadeh and Dube (forthcoming) propose that partial acquirers are motivated by disciplinary motive and inter-corporate perquisites motive.

Partial acquisitions have existed for many years, but foreign acquisitions have been thriving since the 1990s. Generally, in the past fifteen years an increasing number of

foreign companies have invested in Canada in the form of partial acquisitions. Beauchesne (2000) presents the situation of the Canadian economy related to foreign acquisitions: due to globalization, foreign companies (especially American companies) increased their control over the Canadian economy by investment in the 1990s. Beauchesne also argues that the majority of Canadian companies could hardly benefit from economic globalization, and actually they are in a disadvantaged position compared to foreign companies due to their smaller size. Penner (2005) argues that for big companies, acquisitions provide a common way to increase their investment scale overseas. From 2001 to 2004, investments and acquisitions by Canadian companies in foreign countries achieved more value than foreign companies achieved in Canada (Penner).

Yung (2001) summarizes that two motives for foreign acquisitions are firm value maximization and managerial self-interest enhancement. Marr, Mohta, and Spivey (1993) argue that foreign acquirers may be motivated by the real-sector perspective, which can be explained as seeking an opportunity to expand operations or capture synergistic gains.

1.2. Research Objective

This research investigates the difference in market reaction to domestic and foreign partial acquisitions. It analyzes returns for target shareholders for the partially acquired companies from the acquisition announcements through a period of one year after the announcements. The objective is to demonstrate how the announcements of both domestic and foreign partial acquisitions affect the stock price performance of the acquired companies. The research also tests the difference of the target's cumulative abnormal returns between domestic and foreign partial acquisitions over various

2

intervals. In addition, the research controls the possible association between the level of abnormal returns and the pre-acquisition financial characteristics of target companies in order to isolate the effects of financial-related factors.

1.3. Motives for Partial Acquisition

Rosenstein (1989) proposes that passive investment, monitoring of management, and wealth transfer are three possible motives for a partial acquirer. First, passive investment is the main purpose. If there is a synergy thereafter, the benefit of the acquirer could increase in proportion to its share in the target. Second, improved performance by the target might be expected if monitoring becomes more effective. An outsider may help the target company to improve after the partial acquisition when it becomes the shareholder with a large block of shares. Third, if wealth transfer is the motive, the value of the acquirer would be expected to increase.

Choi (1991) emphasizes that aside from takeovers, value-enhancing control transfers also include internal mechanisms, such as proxy fights and management turnovers. Choi discusses three hypotheses for the partially acquired companies: 1) Anticipated Takeover Bid Hypothesis, 2) Control Transfer Hypothesis, and 3) Undervaluation Hypothesis.

For many acquirers, especially frequent acquirers, the goal is takeover. Mikkelson and Ruback (1985) argue that partial acquisition may end with a takeover. Sudarsanam (1996) also argues that because partial acquisition is an important event for targets, it may be followed by takeover or proxy contest.

Torabzadeh and Dube (forthcoming) argue that the motives for partial acquisitions are a disciplinary motive and a inter-corporate perquisites motive. When the acquirers

acquire shares of targets using the disciplinary motive, they discipline and improve the target's management by monitoring its performance or changing the inefficient current proxy; such as replacing the CEO of the targets. When the acquirers are motivated by obtaining inter-corporate perquisites, they retain the pre-acquisition CEO. Wealth transfer from the targets to acquirers is expected after partial acquisition. The acquirers force the targets to adopt a policy, which could benefit them in the form of a "financial market" transaction, or by a "product market" transaction to obtain the benefits such as favorable terms or technology sales.

1.4. Motives for Foreign Acquisition

Yung (2001) summarizes two motives for foreign acquisitions. The first is firm value maximization. He suggests that acquiring firms can earn a number of economic benefits from foreign operations. This is consistent with the firm value maximization hypothesis. The second motive is managerial self-interest enhancement. Managers may be tempted to invest in a particular activity if they can obtain private benefit from it. Even if the investment decreases firm value, they may still be tempted to invest in it.

Harris and Ravenscraft (1991) argue that the hypotheses for foreign takeovers include imperfections and costs in product or factor markets, biases in government and regulatory policies, and imperfections and information asymmetries in capital markets. Marr, Mohta, and Spivey argue that foreign acquirers may be motivated by the real sector to bid. They explain that the real-sector perspective asserts that foreign takeovers are intended "1) to acquire specific targets that offer the opportunity to capture synergistic gains, and 2) to enter into or expand existing operations" (1993, p. 285).

Seth, Song, and Pettit (2000) who reexamine the research (Berkovitch & Narayanan, 1993), they argue that synergy, managerialism and hubris are motives for foreign acquisition. The synergy hypothesis proposes that acquisitions take place when the value of the combined company is greater than the sum of the values of the individual companies. The extra value is derived because of more efficient operation, or because of synergistic gain in increased market power. The hubris hypothesis suggests that "acquisitions occur because managers make mistakes in evaluating target firms, and the takeover premium merely reflects a random error" (Seth, Song, & Pettit, p. 390). That is, the bidding managers may make errors to overvalue or undervalue the targets. The acquirers pay the premium to the targets, but they cannot achieve synergistic gains after the acquisition. The managerialism hypothesis explains that "managers will knowingly overpay in takeovers: managers embark on acquisitions to maximize their own utility at the expense of their firm's shareholders" (Seth, Song, & Pettit, 2000, p. 391). Managers may seek more assets by acquisition since their compensation is frequently tied to the amount of assets under their control.

1.5. Research Hypotheses

The testable hypotheses of the current research are as follows:

H_1: There are significant positive abnormal returns around the announcement day for both domestic partial acquisitions and foreign partial acquisitions;

H_2: The abnormal returns for post announcement days are significantly negative for both domestic partial acquisitions and foreign partial acquisitions;

H_3: The negative abnormal returns for foreign partial acquisitions are less than for domestic partial acquisitions for post announcement days.

In the literature, researchers (Amoako-Adu & Smith, 1993; Choi, 1991; Madden, 1981; Mikkelson & Ruback, 1985; Rosenstian, 1989) find significant positive abnormal returns for domestic partial acquisitions around the announcement date. The target company's stock price goes up around the announcement date because the market interprets the partial acquisition as the signal of subsequent full takeover. The bidder will pay premiums to the target when a full takeover happens.

The results of Harris and Ravenscraft's (1991) research shows that because foreign bidders pay a higher premium for targets whose operations are related to their own, the wealth effect on the announcement of an acquisition is significantly higher for the targets of foreign bidders than for the targets of domestic bidders. Based on this conclusion, higher positive abnormal returns for the targets of foreign partial acquisitions than the targets of domestic partial acquisitions around the announcement day will be expected.

Some researchers conclude that when there is no takeover after the partial acquisition, the abnormal return in the following years is negative for the targets (Choi, 1991; Mikkelson & Ruback, 1985; Sudarsanam, 1996). This research uses as samples those targets without takeover within one year after the partial acquisitions. Because of the reason stated above, it is expected that the targets of the domestic partial acquisition will obtain negative abnormal returns for one-year post announcement days.

Actually, there is limited research on foreign partial acquisition. According to Yung's (2001) study, the motives for foreign acquisitions are firm value maximization and managerial self-interest enhancement. The expectation of the abnormal returns for the targets of different foreign partial acquisitions will not be the same. For the targets whose partial acquisition is from the motive of firm value maximization, the abnormal

returns are expected to be positive. For the targets whose partial acquisition is from the motive of managerial self-interest enhancement, the abnormal returns are expected to be negative.

In brief, the three hypotheses test the abnormal returns by time order. Hypothesis 1 is for the immediate announcement period; Hypothesis 2 is for the post announcement period; Hypothesis 3 is also for the post announcement period, but compares the differences in horizontal perspective between domestic and foreign partial acquisition.

1.6. Relevance of the Research

This research is relevant for the following reasons:

1) In the previous literature, many studies have emphasized management turnovers and acquisition performance of the acquiring companies. Mikkelson and Ruback (1985) explain that a great number of studies emphasize valuation consequences of corporate takeovers for acquiring and target companies. Further extension of the research in the area of acquisition is needed, especially since the study of foreign partial acquisitions is uncommon.

2) Research on foreign partial acquisitions has so far focused mainly on American companies. Seth, Song, and Pettit (2002) argue that in previous research, the common empirical approach is estimating excess returns of U. S. targets of cross-border acquisitions or to the foreign acquirers, and examining whether these returns are systematically associated with other factors. The research of partial acquisitions in Canada is rare. It's well-understood that the United States' market is huge and competitive. The Canadian market, however, is comparatively small and predominantly comprised of small companies. Prior literature has not addressed the

7

potential differences between partial acquisitions in the United States and Canada. This research makes a contribution by looking at Canadian companies. It focuses on the significance of foreign acquisitions and the feasibility of foreign acquisitions in this country.

3) This research evaluates acquisitions using the price of common shares. It illustrates how partial acquisitions affect stock prices and how the stock prices provide information to help investors evaluate acquisition activity. Also, the study provides some additional information to future investors when they consider acquisitions.

2. Literature Review

2.1. Literature Review of Acquisition

Acquisition is a type of takeover. People usually use "takeover" to express the activity when a whole company is purchased by another company. Actually, takeover is not a precise term, as it generally refers to the transfer of control of a company from one group of shareholders to another (Ross, Westerfield, Jordan, & Roberts, 2002). The relationships can be depicted as follows:

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                                              Merger
                    Acquisition  <           Acquisition of Stock
                                              Acquisition of Assets
    Takeovers  <           Proxy Contest

                          Going Private
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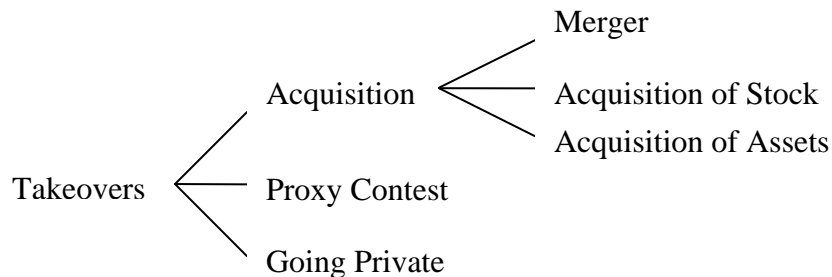
(Modified from Ross, Westerfield, Jordan, and Roberts, 2002)

Figure 1. Takeover Activities

Sometimes takeovers occur as a solution to an agency problem, which could be a conflict of interest between managers and shareholders. Weston, Chung, and Siu (1998) define the reason for an agency problem as: managers who only own a fraction of the ownership shares of the company. In this case, managers work less vigorously and consume more prerequisites because the majority owners pay most of the cost of the managers. A takeover through a tender offer or a proxy fight enables an outsider to replace the incumbent manager or gain control of the board. Disciplining the management and improving the operation will be expected after the takeover. An agency

problem exists not only in takeover companies, it also might exist when partial

acquisition occurs.

Lam and Chiu's (2005) paper discusses acquisition as a strategy to protect existing

revenue. Moreover, acquisition not only makes a company defend its own market

position, but it also makes a company outperform its competitors. Seth's (1990) research

shows that value is created in both related and unrelated acquisitions. Namely, significant

synergies are achieved in both related and unrelated acquisitions.

Berkovitch and Narayanan argue that the synergy motive, the agency motive, and

hubris are three major motives for complete acquisitions:

> *The synergy motive suggests that takeovers occur because of economic gains that*
> *result by merging the resources of the two firms. The agency motive suggests that*
> *takeovers occur because they enhance the acquirer management's welfare at the*
> *expense of acquirer shareholders. The hubris hypothesis suggests that managers*
> *make mistakes in evaluating target firms, and engage in acquisitions even when*
> *there is no synergy (1993, p. 347).*

Berkovitch and Narayanan (1993) predict and prove that the three motives,

synergy, hubris and agency, posit different relations between observed target gains and

total gains. Synergy predicts a positive correlation between target gains and total gains,

hubris predicts a zero correlation, and agency predicts a negative correlation. They set up

the hypotheses that takeovers are motivated by synergy, hubris and agency, and target

and acquirer gains are positively correlated in the subsample of positive total gains. They

select 330 successful tender offers from 1963 through 1988 as samples. By using the

market model and computing the cumulative abnormal returns, they test and distinguish

among the above three major motives for takeover. The results support their correlation

hypotheses between motive and target and total gains. Synergy is the major reason for the

takeovers, and, on average, the total gains for takeovers are positive. They conclude that

the synergy hypothesis implies a positive correlation between target gains and total gains, the agency hypothesis implies a negative correlation, and the hubris hypothesis implies zero correlation.

2.2. Literature Review of Partial Acquisition

Partial acquisitions are made by the purchase of 5% or more of the common stock of target companies (Mikkelson & Ruback, 1985). Amoako-Adu and Smith explain that partial acquisition is when "the bidder successfully acquires, on a pro rata basis, only a fraction of the outstanding shares not previously held by the bidder" (1993, p. 1098). Partial acquisition is also defined as the purchase of a large block of shares in a company (Sudarsanam, 1996).

Some targets consider the acquirers' partial acquisitions as the first step of a subsequent hostile full takeover. Larger block acquirers are considered to be detrimental to other shareholders. They may receive a substantial premium on their shares over the market price through greenmail which "represents a targeted repurchase of a large block of stock from specified shareholders at a premium" (Weston, Chung, & Siu, 1998, p. 414). The goal of greenmail is to eliminate a hostile takeover threat.

Amoako-Adu and Smith (1993) argue that when companies are taken privately, shareholders gain significantly because agency costs are reduced. They compare and contrast complete tender offers and partial acquisitions and try to assess the benefits of the acquisition. The selected samples are 127 complete tender offers and 33 partial acquisitions from 1977 to 1984 in Canada. By applying a modified market model, they find that after controlling for other factors, the returns for target shareholders in complete tender offers are higher than the target shareholders in partial acquisitions. On the

announcement day, the market reaction for the stocks of complete tender targets gains significantly more than the stocks of partial acquisition targets. Their conclusion is consistent with prior research (Comment & Jarrell, 1987) that shows that the target benefits from complete tender offers are larger than from partial acquisitions. Further they indicate that for gains for target shareholders, there is no significant difference between having private transactions and outsider buyouts.

Mikkelson and Ruback (1985) investigate the stock prices of corporate investments in 5% or more of the target company's securities. Their research attempts to determine whether and how the stock prices of acquirers and targets respond to different types of corporate investments in common stock. They also measure and compare the total valuation effects of investments with different outcomes. Their sample of corporate acquisitions includes 473 American companies from 1978 to 1980, using the market model and calculating abnormal returns for acquirers and targets. Their empirical evidence shows that after the partial acquisition announcement, the stock prices of both acquirer and target increase. The cumulative abnormal return is significantly positive around the announcement. They find the total returns for targets and acquirers depend on whether a takeover follows the partial acquisition. They conclude that the completed takeover as the outcome will benefit the target the most and bring the least total value for the acquirer. When there is no takeover or management improvement after the partial acquisition of the announcement, there are negative returns for the targets. Moreover, there is no significant difference between the abnormal returns of frequent and infrequent acquirers.

Rosenstein (1989) investigates the stock return and valuation effects for targets and acquirers around the announcement. He sets up the hypotheses stating that if partial acquirers are motivated by passive investment and monitoring of management, the returns for the acquirers will be zero and positive, respectively; if acquirers are motivated by wealth transfer, the returns for the target will be negative. Rosenstein selects a sample that includes 41 pairs of acquirers and targets which had announcement dates between 1974 and 1980. By applying event study methodology, the results of his research show that there are significant positive abnormal returns around the announcement day for the target which are attributed to buying pressure and the information in the announcement regarding potential subsequent full takeover. Rosenstein finds the targets gain from the partial acquisition. He concludes that the targets gain and their acquirers experience substantial losses, which is consistent with previous research (Mikkelson & Ruback, 1985).

Rosenstein and Rush (1990) argue that a partial acquirer may transfer wealth from remaining target shareholders by influencing the target's management. They test the wealth transfer hypothesis. A sample of 51 companies partially acquired from 1980 to 1984 is matched against a non-partially owned control group. By applying a modified market model, they find that risk-adjusted monthly stock returns of partially acquired companies are significantly lower than those of control group companies over a five-year post acquisition period. They conclude that partial acquirers transfer wealth from the remaining target shareholders by using their control. This is consistent with prior research (Rosenstein, 1989).

Choi (1991) attempts to prove the hypotheses for partial acquisitions, which are the anticipated takeover bid hypothesis, the control transfer hypothesis and the undervaluation hypothesis. He takes a sample of 322 partial acquisitions selected from 1982 to 198 by using an event study. The results of the research show that there are positive valuation effects for the targets from day -40 to day +40. Choi finds that partial acquisitions are systematically followed by takeovers, proxy fights and management turnovers. Partial acquisitions which experience takeovers, proxy fights, or management turnovers, exhibit an abnormal increase in share value, while others exhibit an abnormal decrease in share value. During the post announcement period, those targets with other management changes also gain significant positive abnormal returns, but less than those with the outcome of takeover. Those targets with no change at all gain significant negative abnormal returns. Choi concludes that the positive wealth effect associated with partial acquisitions reflects the anticipated benefits of further control transfers. Choi's study is consistent with prior research (Mikkelson & Ruback, 1985).

Sudarsanam (1996) investigates the valuation effects of partial acquisitions. The research focuses on the relationship between partial acquisitions and subsequent takeover attempts for the targets. Sudarsanam sets up the hypotheses that the higher the percentage of the partial acquisition, the higher the probability of a takeover bid. When there is no takeover after the partial acquisition, targets suffer wealth losses. He takes a sample of 228 UK companies partially acquired between 1985 and 1992. By using the conventional event study methodology, the results show that around the announcement, cumulative average returns for all subsamples are significantly positive for targets. Sudarsanam finds no evidence showing the percentage of the partial acquisition significantly influencing

the subsequent bid premium or bid success. When there is no takeover as an outcome, the value gains are still there for the targets. This differs from the results of previous studies. He concludes that the valuation effects of partial acquisition are due to "the stock market anticipation of subsequent corporate control events of more effective monitoring of target management by the shareholder" (Sudarsanam, p. 311). Moreover, positive stock reaction to partial acquisitions is also determined by other factors such as the identity of the partial acquirer, rather than only by the market expectation of takeover.

Torabzadeh and Dube (forthcoming) investigate post-acquisition changes in share performance and operating returns. They set up two motive hypotheses: 1) if the target CEO is replaced after the partial acquisition, the post-acquisition performance tends to be improved, and 2) if the previous CEO is retained after the partial acquisition, the abnormal returns for targets are significantly negative. The sample of their research is 206 U.S. targets of partial acquisitions from 1995 to 2000. By calculating precision weighted cumulative average abnormal returns and the buy-and hold abnormal returns, Torabzadeh and Dube find that there are significant positive abnormal returns around the announcement date for the targets. Targets that retained the CEO show negative abnormal returns compared to targets that changed the CEO during the two-year post acquisition period. That is, their results support their hypothesis. The conclusion is consistent with the literature that the adjustment of the target CEO is one of the vital factors that determines the valuation gain after the partial acquisition.

2.3. Literature Review of Foreign Acquisition

It is believed that "Foreign acquisitions are usually considered strategic investments necessary for gaining access to new markets or new technologies" (Yung,

2001, p. 53). Duarte and Garcia-Canal argue, "When expanding abroad through an acquisition, the firm's managers may decide not to acquire 100% of the equity of the foreign firm, but rather only a part of this equity, in which case a partial acquisition arises" (2004, p. 45).

Harris and Ravenscraft's (1991) investigate the possible differences between foreign and domestic takeovers. The sample of their research is 1,273 U.S. companies acquired during the period 1970 to 1987. They use event study methodology and compute the abnormal return. They find that in most cross-border transactions, the acquirer and the target are in related industries. They also find that in the U.S. market (compared to domestic bidders), target wealth gains in foreign acquisitions are significantly higher than target wealth gains in domestic acquisitions. When attempting to find the reasons for the wealth effect in foreign acquisition, Harris and Ravenscraft explore a number of variables. They find the variables only partially explain the wealth gains. They conclude that a cross-border premium does exist. However, the variables applied may be proxies for some other changes in the market.

Marr, Mohta, and Spivey (1993) investigate whether the real sector is the motive for foreign acquisitions. The sample of their research is 96 U.S. companies taken over by foreign companies during the period from 1975 to 1987. Applying the standard market model and estimating cumulative average return, they find that the wealth effect on the announcement of a takeover is significantly higher for foreign takeovers than for domestic takeovers in the U.S. Moreover, they find that when targets' operations are related to their corresponding foreign bidders' operations, the bidders pay a slightly higher premium for the targets. Marr, Mohta, and Spivey conclude that foreign acquirers

use takeovers to enter or expand the market and to obtain wealth gains. Foreign takeover is also a quick way for foreign companies to counteract competition.

Seth, Song, and Pettit (2000) test the hypotheses that cross-border acquisitions are motivated by synergy, hubris and managerialism. In addition, cross-border acquisitions with positive total gains are motivated by synergy or by hubris; cross-border acquisitions with negative total gains are motivated by hubris or managerialism. They choose 100 cross-border acquisitions of U.S. industrial corporations from 1981 to 1990 as a sample. They use event study methodology to estimate cumulative abnormal returns to the targets and acquirers. The result shows that synergy is the predominant motive for foreign acquisitions in the U.S. compared to the wealth before the acquisition. Table 1 shows this relationship between motives and the wealth gain for the bidder, target and the combined company.

Table 1. The Relationship between Motives and Wealth Gains for the Bidder, Target and Combined Company

	Bidder	Target	Combined company
Synergy	↑	↑	↑
Managerialism	↓	↑	↓
Hubris	↓	↑	→

Note. ↑: Positive wealth gain;
↓: Negative wealth gain;
→: Zero wealth gain.

As Table 1 shows, Seth, Song, and Pettit (2000) conclude that the synergy motive increases value. The managerialism motive causes value destruction. The hubris motive results in value transactions from the acquirers to targets. Their findings are consistent with previous studies such as Berkovitch and Narayanan (1993).

Seth, Song, and Pettit (2000, 2002) investigate the sources of gains and losses in foreign acquisitions for alternative motives of transactions: synergy, managerialism and hubris (which are consistent with the previous study). They propose that alternative motives may exist for undertaking the acquisitions, and that they should be taken into account when investigating the sources of value creation in cross-border acquisitions.

Compared to domestic companies, foreign companies are at a disadvantage in an unfamiliar market. Duarte and Garcia-Canal's research suggests that "country dissimilarity" may exist between the domestic markets and foreign markets. Information asymmetry also may exist, which means that "the company expanding abroad does not have all of the relevant information about the local company" (2004, p. 42). Naturally, local companies which possess all the related information, will not share the information with the acquirer.

Partial acquisitions allow the companies to avoid some disadvantages, like country risk, which may be generated by full acquisitions, so that partial acquisitions can be considered as an effective way to enter a high country-risk market. Anand and Delios (2002) addressed the company's competencies as an important factor when making the choice between acquisition and greenfield investment.

In short, the previous studies provide evidence that in the U.S. market, 1) the stock prices of targets rise around the partial acquisition announcement because of the expectation of further takeover or management change, and 2) the stock prices of targets drop in the post announcement period when no takeover or management change follows the partial acquisition. However, they do not show the difference between domestic and foreign partial acquisition, which is my research objective.

3. Research Methodology

3.1. Data Collection

Partial acquisitions are identified from two sources: Mergers & Acquisitions in Canada for the years 1997 to 2003; and Financial Post Crosbie: Mergers & Acquisitions in Canada for the years 2004 to 2005. With each partial acquisition, other related information is obtained, such as a brief introduction of the target, acquirer, and vendor companies; the initial announcement date of the acquisitions; the number of shares purchased; the price of the investment; the method of payment; the status of the acquisition; the four-digit Standard Industrial Classification Code (SIC); and the description of the acquisition.

The sample construction follows the following ten criteria. First, according to the literature of partial acquisitions, the percentage of the target that has been acquired should be at least 5%, and less than 100% of the total outstanding common shares of the target.

Second, the shares of the partial acquisition have to be publicly traded.

Third, the acquirer of the partial acquisition could be either a domestic company or a foreign company; thus, the partial acquirer would be identified in two different categories, but the target had to be a Canadian company.

Fourth, the partial acquisition with more than one acquirer would meet the following guidelines: 1) the partial acquisition with several Canadian acquirers has been identified as a domestic partial acquisition, 2) the partial acquisition with several foreign acquirers has been identified as a foreign partial acquisition, and 3) the partial acquisition with both domestic and foreign acquirers has been excluded from the sample. They can be categorized into neither domestic partial acquisitions nor foreign partial acquisitions.

Fifth, if the partial acquisition has more than one target, the stock price of each target has been included. For example, if there are two targets in one partial acquisition, the stock prices of these two targets are counted and considered as two partial acquisitions.

Sixth, the deal status of the partial acquisition must be "complete". Either "pending" or "terminated" means the acquisition has not been accomplished and has not been included.

Seventh, the target's stock has to be listed on the Toronto Stock Exchange (TSX).

Eighth, the research period of each partial acquisition will be from 300 days before the initial announcement date to 250 days after the initial announcement date. The daily stock price of this period should be available, which implies that the stock was listed on the TSX before the announcement date. Those target companies which have no data for the entire event period, have been excluded. Specifically, they do not have sufficient data for this research.

Ninth, if the target was partially acquired by the same acquirer more than once, that is, the partial acquisition with the same acquirer increases its stake by purchasing more shares of the same target during the research period; it has been excluded from the sample. By doing this, the effect of the initial announcement of the partial acquisition could be singled out clearly.

Tenth, some targets of partial acquisitions changed their names after the acquisition. By checking their websites or financial company profile websites, their new names could be found, and likewise, their Stock Market Symbols on the TSX.

Table 2. Domestic and Foreign Partial Acquisitions (1997-2005)

Year	Domestic P. A.	Foreign P. A.	% of F.P.A.	% of D.P.A.
1997	4	7	63.64%	36.36%
1998	7	5	41.67%	58.33%
1999	12	9	42.86%	57.14%
2000	5	6	54.55%	45.45%
2001	16	8	33.33%	66.67%
2002	8	8	50.00%	50.00%
2003	6	3	33.33%	66.67%
2004	2	4	66.67%	33.33%
2005	3	2	40.00%	60.00%
Total	63	52		

Note. Sources: Mergers & Acquisitions in Canada (1997-2003);
          Financial Post Crosbie: Mergers & Acquisitions in Canada (2004-2005);
   Domestic P. A.: Domestic Partial Acquisition;
   Foreign P. A.: Foreign Partial Acquisition;
   % of F.P.A.: Percentage of Foreign Partial Acquisition in Partial Acquisition;
   % of D.P.A.: Percentage of Domestic Partial Acquisition in Partial Acquisition.

Table 2 shows a total of 63 domestic partial acquisitions and 52 foreign partial

acquisitions that were selected for this research. The data for the target stock prices are

purchased from CTVGlobemedia Publishing Inc. The samples represent most industries

in Canada: Banks, Biotechnology, Chemicals, Commercial Services & Supplies,

Communications Equipment, Consumer Services, Food & Staples Retailing, Gold,

Health Care Equipment & Services, Media, Metals & Mining, Oil, Gas & Consumable

Fuels, Real Estate Management & Development, Retailing, Telecommunication Services,

etc.

Figure 2 illustrates that in the past nine years, the percentage of domestic partial

acquisitions has fluctuated. The percentage started from a low point of 36.36% in 1997,

and had a notable increase from 1998 to 1999. After 1999, it fluctuated alternately. In

2001 and 2003, the percentage of domestic partial acquisitions reached its highest point of 66.67%. A sharp decrease was reached in 2004 before an increase in 2005.[1]
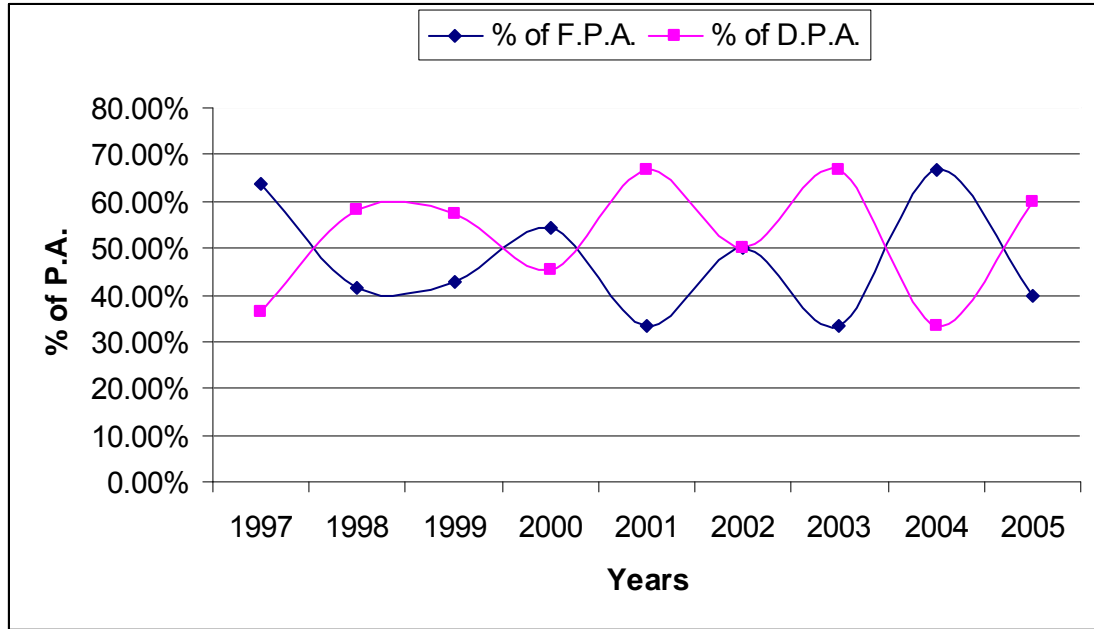
Figure 2. Domestic and Foreign Partial Acquisitions (1997-2005)

At the same time, the percentage of foreign partial acquisitions also fluctuated over the past nine years. It began in 1997 with a high point of 63.64% before decreasing to 41.67% in 1998. The percentage of foreign partial acquisitions increased to 54.55% in 2000. After 2000, it fluctuated inversely to the percentage of domestic partial acquisitions, except for 2002. The percentage of foreign partial acquisitions reached a high of 66.67% in 2004 before falling to 40.00% in 2005.[2] Based on the collected samples, it is observed that when foreign partial acquisitions increase, there is a decrease in domestic partial acquisitions.

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[1] The table and the figure only show the percentage of domestic partial samples which satisfy the criteria.

[2] The table and the figure only show the percentage of foreign partial samples which satisfy the criteria.

22

3.2. Methodology

There are two major methods used in measuring long-run abnormal returns: "cumulative average returns" (CAR) (Brown & Warner, 1980, 1985; Torabzadeh & Bertin, 1992) and "buy-and-hold abnormal returns" (BHAR) (Barber & Lyon, 1997; Lyon, Barber, & Tsai, 1999). Some researchers (Barber & Lyon,; Kothari & Warner, 1997; Lyon, Barber, & Tsai) compare the difference between CARs and argue that there is a monthly compounding effect and CARs exclude the effect of compounding but BHARs include it. BHAR has three unavoidable biases that arise from the buy-and-hold return method using a reference portfolio (such as a market index): 1) new listing bias, 2) rebalancing bias and 3) skewness bias. In brief, both of the methods have their own advantages and disadvantages.

Torabzadeh and Bertin's (1992) research shows the comparison of stock returns under leveraged buyouts and business combinations surrounding the acquisition announcements. Under controls of the effects of transaction-related factors and firm-specific financial characteristics, a possible association is achieved. The methodology used is a multiple regression model for average standardized cumulative abnormal returns (ASCAR), which is based on Brown and Warner's (1980, 1985) CAR technique. Torabzadeh and Bertin's (1992) study achieves clear results and draws the conclusion that the target companies in business combinations captured significantly greater abnormal returns compared to those acquired in leveraged buyouts.

This study applies the same methodology as Torabzadeh and Bertin (1992). For each company, the benchmark returns are obtained using the market model.

$$R_{jt} = \hat{\alpha}_j + \hat{\beta}_j R_{mt} + \varepsilon_{jt} \qquad (1)$$

where

R_{jt} = the stock return for the company j on day t.

$\hat{\alpha}_j, \hat{\beta}_j$ = The ordinary least squares estimates of the market model parameters which are calculated over the period t = -310 to t = -10 relative to the announcement day, t = 0.

R_{mt} = the market stock return on day t, the TSX Composite Index is used as a proxy for the market returns.

ε_{jt} = the corresponding homoscedastic error term with an expected value of zero, and uncorrelated with other companies' stock returns and the market return.

    The data for the target stock prices are purchased from CTVGlobemedia Publishing Inc. The stock returns data for Toronto Stock Exchange Composite Index are purchased from the TSX Datalinx. The abnormal returns are calculated over a period of 250 days. The period is from 10 days before the initial announcement date to 240 days after the initial announcement date. Daily market returns are calculated for the same period. The average abnormal return (AAR$_t$) for each day of the event period t is calculated.

$$AAR_t = \frac{1}{M} \sum_{j=1}^{M} (R_{jt} - \hat{\alpha}_j - \hat{\beta}_j R_{mt}) \qquad (2)$$

where

    M = The number of companies in each portfolio.

The daily average abnormal returns are summed over the event period to obtain cumulative average daily returns (CAR_T). The values of AAR_t and CAR_T are expected to be zero. Significant deviations from zero are considered to be attributed to the announcements of partial acquisitions. The observed values of AAR_t and CAR_T are tested for significant difference from zero using t-statistics. The test statistics for AAR_t are obtained based on the average standardized abnormal return ($ASAR_t$) as developed by Torabzadeh and Bertin (1992), where

$$ASAR_t = \frac{1}{M} \sum_{j=1}^{M} \frac{(R_{jt} - \hat{\alpha}_j - \hat{\beta}_j R_{mt})}{S_{jt}} \tag{3}$$

S_{jt} is the estimated sample standard deviation which is defined as

$$S_{jt} = \left[\left[1 + \frac{1}{n} + \frac{(R_{mt} - \overline{R}_m)^2}{\sum\limits_{t=-310}^{-10}(R_{mt} - \overline{R}_m)^2} \right] \frac{\sum\limits_{t=-310}^{-10} U_{jt}^2}{n-2} \right]^{\frac{1}{2}} \tag{4}$$

where $\overline{R}_m$ is the mean daily market return in the estimation period, and U_{jt} is the residual return for common stock j on day t of the estimation period. Day -10 is where the event day starts; the estimation period is from day -310 to day -10; 300 days are a large enough period to provide a good estimate of coefficients. The number of days in the estimation period is n. The t-statistics for AAR_t are calculated as in Torabzadeh and Bertin's (1992) research:

$$t_{AAR_t} = \sqrt{[(n-2)M / (n-4)]} ASAR_t \tag{5}$$

The t-statistics for CAR_T are obtained by

$$t_{CAR_T} = \frac{1}{\sqrt{t}} \sum_{t=1}^{T} t_{AAR_t} \qquad (6)$$

where T is the number of event days over which the t_{AAR_t} is summed.

The abnormal returns obtained for the two portfolios (for foreign and domestic categories) are compared and tested for significant differences using t-statistics as applied in the literature (for example, see Seth, 1990; Torabzadeh & Bertin, 1992).

$$t_{CAR1-CAR2} = \frac{CAR_1 - CAR_2}{\sqrt{1/M_1 + 1/M_2}} \qquad (7)$$

where CAR_1 and CAR_2 respectively are the cumulative average abnormal returns for two subsamples (foreign and domestic categories) on day t, and M_1 and M_2 are the numbers of securities contained in the two categories of portfolios.

In addition, this research controls the possible association between the level of abnormal returns and pre-acquisition financial characteristics of target companies to isolate the effects of transaction-related factors. The samples strictly met certain criteria. A multiple regression model is constructed using cumulative abnormal returns (CAR) as the dependent variable. Related data for control variables are collected from Research Insight (Compustat). The multiple regression model of cumulative abnormal returns (CAR) is as follows:

$$\begin{aligned} CAR_{jt} &= \alpha_0 + \alpha_1 NWC/TA_{jt} + \alpha_2 TD/TA_{jt} + \alpha_3 MV/BV_{jt} + \alpha_4 PER_{jt} + \alpha_5 ROA_{jt} \\ &+ \alpha_6 CH/TA_{jt} + \alpha_7 ACQ_{jt} + \alpha_8 TYPE_{jt} + \varepsilon_{jt} \end{aligned} \qquad (8)$$

where

NWC/TA_{jt} is net working capital/total assets of company j in the year t.

TD/TA_{jt} is total debt/total assets of company j in the year t.

MV/BV_{jt} is market value/book value of company j in the year t.

PER_{jt} is price earnings ratio of company j in the year t.

ROA_{jt} is return on assets of company j in the year t.

CH/TA_{jt} is cash/total assets of company j in the year t.

ACQ_{jt} is the percentage of shares the acquirers acquired of company j.

$TYPE_{jt}$ is acquisition type of company j.

ε_{jt} is the random error.

The above explanatory variables are:

First, net working capital/total assets is the measure of the liquidity of a company's assets (Stevens, 1973). Excess liquidity is considered as an attractive quality as opposed to cash deficiency (NWC = Current Assets - Current Liabilities).

Second, total debt/total assets is defined as the sum of Long-Term Debt and Debt in Current Liabilities, divided by Total Assets, which represent the sum of current assets, net plant, and other noncurrent assets.

Third, market value is the price a company would fetch in the market. It represents the market's estimate of the value of a company's assets or equity. Book value is the value of an asset as it appears on a balance sheet, equal to cost minus accumulated depreciation. The market-to-book ratio attempts to identify undervalued or overvalued securities by taking the market value and dividing it by book value.

Fourth, price earnings ratio is a valuation ratio of a company's current share price compared to its per-share earnings. It is used to measure how high or low the share price is.

Fifth, return on assets (ROA), is an indicator of how profitable a company is relative to its total assets. ROA is calculated by dividing a company's annual earnings by its total assets. This ratio could be used to compare one company's performance to other companies in the same industry.

Sixth, cash/total assets represents total dollar value of cash and short-term investment divided by total assets. It is a stringent test of a company's liquidity.

The selected dependent variable is cumulative abnormal returns after the partial acquisition date. The above six independent variables are collected for the year before the partial acquisition as pre-acquisition financial characteristics of target companies in order to isolate the effects of transaction-related factors. The same methodology is used in this study as was used in Torabzadeh and Bertin's (1992) research. No further time horizon adjustment is applied between the variables.

Seventh, ACQ is the percentage acquired by the acquirer of the target. Some researchers (Amoako-Adu & Smith, 1993; Fauver, Houston, & Naranjo, 2003; Morck, Shleifer, & Vishny, 1988) suggest that the level of ownership concentration affects the acquisition. The value of the percent of shares purchased is used as this variable. For example, if 10% of the shares of a target is purchased by an acquirer, 0.1 will be used as this variable. A full sample is compiled by combining both domestic and foreign acquisitions to control for the level of ownership.

Moreover, the type of acquisition is also applied as an independent variable. Since most foreign acquirers are American companies, partial acquisitions are classified into three different categories: Canadian partial acquisitions, American partial acquisitions and other foreign partial acquisitions. Alternative dummy variables are used to test the difference.

3.3. Results

The AAR and cumulative abnormal returns (CAR) along with corresponding t-statistics for the target companies from day $t = -5$ to $t = +5$ are presented in Table 3.

Table 3 shows that the overall partial acquisitions present positive AAR and CAR on the event-day $t = 0$ and they are $+0.01$ ($t_{AAR\ 0} = 3.50$) and $+0.03$ ($t_{CAR\ 0} = 3.08$), respectively. These returns are significantly different from zero at a conventional alpha level. CAR remains significantly positive from $t = 0$ to $t = +5$. Over the entire event period, the targets realize a significant CAR of $+0.03$, which means 3% cumulative abnormal returns.

As shown in Table 3, the AAR and CAR for the target companies acquired by foreign companies on the event-day $t = 0$ are $+0.02$ ($t_{AAR\ 0} = 4.55$) and $+0.03$ ($t_{CAR\ 0} = 2.55$), respectively. These returns are significantly different from zero at 0.01 and 0.05 levels, respectively. Over the entire event period, the targets of foreign partial acquisition realize a significant CAR of $+0.04$, which means 4% cumulative abnormal returns.

As reported in Table 3, the AAR and CAR for the target companies acquired by domestic companies on the announcement day $t = 0$ are 0 ($t_{AAR\ 0} = 0.60$) and $+0.03$ ($t_{CAR\ 0} = 1.85$), respectively. These two rates are statistically insignificant. On the event-day $t = +1$, the AAR and CAR are $+0.02$ ($t_{AAR\ +1} = 2.65$) and $+0.05$ ($t_{CAR\ +1} = 2.71$), respectively.

These returns are significantly different from zero at 0.01 level. Over the entire event

period, the targets of domestic partial acquisition capture an insignificant CAR of +0.03,

which means 3% cumulative abnormal returns.

Table 3. Daily Average Abnormal Returns and Cumulative Average Returns for Targets

Event Day	Targets of All Partial Acquisition (N = 115)		Targets of Foreign Partial Acquisition (N = 52)		Targets of Domestic Partial Acquisition (N = 63)	
	AAR% (t-Value)	CAR% (t-Value)	AAR% (t-Value)	CAR% (t-Value)	AAR% (t-Value)	CAR% (t-Value)
-5	0.00108 (-0.02)	0.00108 (-0.02)	0.00115 (-0.25)	0.00115 (-0.25)	0.00095 (0.21)	0.00095 (0.21)
-4	0.00820 (1.19)	0.00928 (0.83)	-0.00060 (-0.01)	0.00055 (-0.19)	0.01561 (1.61)	0.01657 (1.28)
-3	-0.00222 (0.27)	0.00706 (0.83)	-0.00116 (0.23)	-0.00061 (-0.02)	-0.00261 (0.15)	0.01395 (1.13)
-2	0.00347 (1.41)	0.01053 (1.42)	0.00422 (1.58)	0.00361 (0.77)	0.00338 (0.47)	0.01734 (1.22)
-1	0.00671 (1.20)	0.01724 (1.81)	0.00443 (0.16)	0.00805 (0.76)	0.00879 (1.49)	0.02613 (1.75)
0	0.01061** (3.50)	0.02785** (3.08)	0.02215** (4.55)	0.03020* (2.55)	0.00073 (0.60)	0.02686 (1.85)
+1	0.01275 (1.24)	0.04061** (3.32)	0.00464 (-1.07)	0.03484 (1.96)	0.01939** (2.65)	0.04625** (2.71)
+2	0.00351 (1.01)	0.04411** (3.46)	0.00143 (0.29)	0.03627 (1.94)	0.00510 (1.09)	0.05135** (2.92)
+3	-0.00376 (0.48)	0.04035** (3.43)	0.00655 (1.86)	0.04282* (2.45)	-0.01167 (-1.05)	0.03967* (2.40)
+4	-0.00268 (-1.12)	0.03767** (2.90)	-0.00157 (-1.13)	0.04125* (1.96)	-0.00296 (-0.49)	0.03671* (2.13)
+5	-0.00455 (-0.81)	0.03311* (2.52)	-0.00278 (0.47)	0.03847* (2.01)	-0.00573 (-1.52)	0.03098 (1.57)

Note. * Significant at the 0.05 level;
       ** Significant at the 0.01 level.

On the event day, AAR and CAR are significant for the targets of foreign partial

acquisitions and insignificant for the targets of domestic partial acquisitions. Over the

entire event period, the difference of AAR and CAR for the target companies between

foreign and domestic partial acquisitions is not apparent. In addition, AAR and CAR for

the targets of foreign partial acquisitions are significant on the announcement day, while

AAR and CAR for the targets of domestic partial acquisitions are insignificant on the

announcement day but are significant on the following two days. This might be caused by

a lack of efficiency in the Canadian market. As domestic partial acquisition happens more

frequently than foreign partial acquisition does, foreign partial acquisitions attract more

attention than domestic partial acquisitions, thus explaining the additional attention given

to foreign partial acquisitions.

Table 4. Multi-Day Tests of Cumulative Average Returns over Selected Intervals for Targets

	All Partial Acquisition (N = 115)	Foreign Partial Acquisition (N = 52)	Domestic Partial Acquisition (N = 63)
	CAR% (t-Value)	CAR% (t-Value)	CAR% (t-Value)
-5, +5	0.03311*	0.03847*	0.03098
	(2.52)	(2.01)	(1.57)
-1, +1	0.03007**	0.03123*	0.02891**
	(3.34)	(2.10)	(2.74)
-1, +5	0.02258*	0.03485	0.01364
	(2.08)	(1.94)	(1.05)
-1, +10	0.00764	0.02087	0.00001
	(0.27)	(-0.07)	(0.43)
-10, +10	0.00762	0.02157	0.00051
	(0.35)	(0.14)	(0.34)
-10, +30	-0.02065	-0.00519	-0.02778
	(-0.13)	(-0.24)	(0.04)
+31, +240	-0.13461**	-0.15539*	-0.10716
	(-2.88)	(-2.26)	(-1.84)

Note. * Significant at the 0.05 level;
 ** Significant at the 0.01 level.

The CAR along with corresponding t-statistics for the target companies over

selected intervals are presented in Table 4.

Table 4 shows that around the event-day overall partial acquisitions present

significantly positive CAR values. During the period from day t = -5 to t = +5, from day t

= -1 to t = +1 and from day t = -1 to t = +5, the CARs are +0.03 ($t_{CAR\,(-5,\,+5)}$ = 2.52), +0.03

($t_{CAR\,(-1,\,+1)}$ = 3.34) and +0.02 ($t_{CAR\,(-1,\,+5)}$ = 2.08), respectively. Over one year after the

announcement, the CAR of overall partial acquisitions becomes significantly negative, as

-0.13 ($t_{CAR\,(+31,\,+240)}$ = -2.88).

As shown in Table 4, the CARs for the target companies acquired by foreign

companies around the announcement day are significantly positive. During the period

from day t = -5 to t = +5 and from day t = -1 to t = +1, the CARs are +0.04 ($t_{CAR\,(-5,\,+5)}$ =

2.01) and +0.03 ($t_{CAR\,(-1,\,+1)}$ = 2.10), respectively. Over one year after the announcement,

the targets acquired by foreign companies realized significant negative CAR values.

During the period from day t = +31 to t = +240, the CAR is -0.16 ($t_{CAR\,(+31,\,+240)}$ = -2.26).
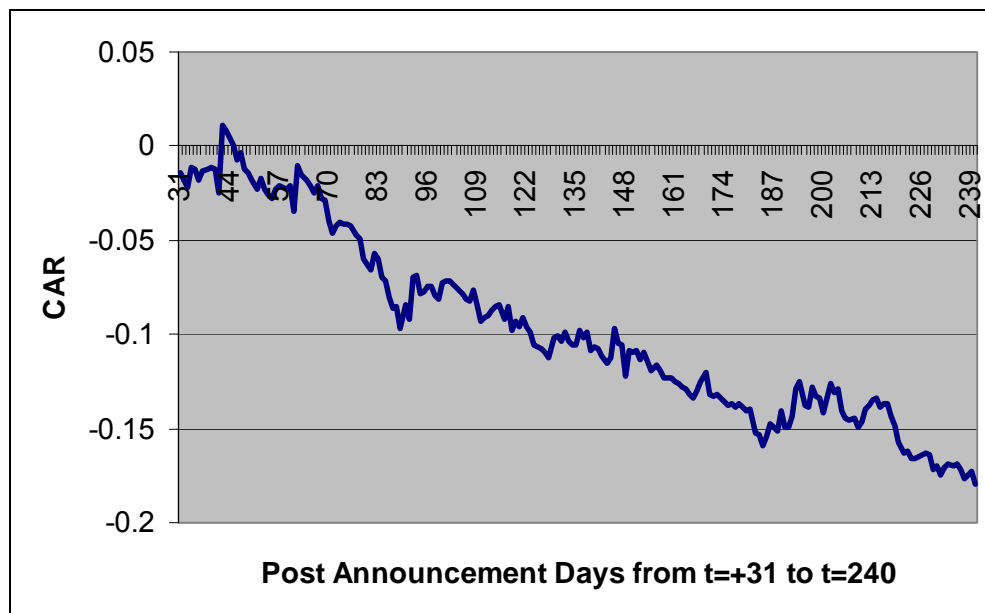

Figure 3. Cumulative Abnormal Returns at Post Announcement Days for Targets of Foreign Partial Acquisition (N = 52)

Figure 3 shows the estimated CAR for the targets acquired by foreign companies from the post announcement day t = +31 to t = +240. Generally the CARs show a decreasing sloping line over the period.

As reported in Table 4, the CARs for the target companies acquired by domestic companies from t = -1 to t = +1 are +0.03, with the t-statistic 2.74, which is significantly positive. Over other intervals, none of the t-statistics of CARs are significant. Over the period from day t = +31 to t = +240, the CAR is negative but not significant as -0.11 ($t_{CAR \ (+30, \ +240)}$ = -1.84).
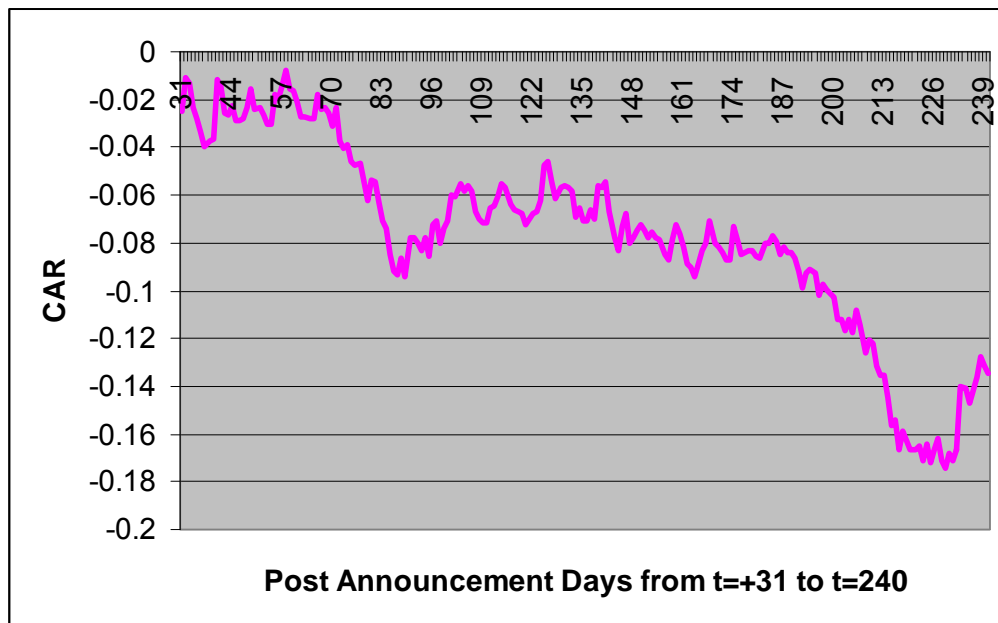
Figure 4. Cumulative Abnormal Returns at Post Announcement Days for Targets of Domestic Partial Acquisition (N = 63)

Figure 4 shows the estimated CAR for the targets acquired by domestic companies from post announcement day t = +31 to t = +240. The CARs show a decreasing and fluctuating curve over the period.

Applying equation (7), no significant difference is found for CARs of targets between foreign partial acquisitions and domestic partial acquisitions over four intervals.

The t-statistic difference is shown in Table 5. In the period from day -1 to +1, the t-statistic of the difference is +0.01; in the period from day -5 to +5, the t-statistic of the difference is +0.04; both of the values are considerably small, which implies the difference between them is almost zero. Over the period from day -10 to +30, the t-statistic of difference is +0.12; over the period from day -10 to +240 and +31 to +240, the t-statistics of the difference are -0.25 and -0.36, respectively. These values are still not significant at a conventional level.

Table 5. The Statistical Difference of the Cumulative Abnormal Returns between Foreign Partial Acquisition and Domestic Partial Acquisition

	CAR (F.P.A.) (N = 52)	CAR (D.P.A.) (N = 63)	Difference	t-statistic
-1, +1	0.03123	0.02891	0.00232	0.01
-5, +5	0.03847	0.03098	0.00749	0.04
-10, +30	-0.00519	-0.02778	0.02259	0.12
-10, +240	-0.17986	-0.13495	-0.04491	-0.25
+31, +240	-0.17468	-0.10716	-0.06752	-0.36

This study also uses the standard t test as an alternative tool to test for significant differences between CARs for the two groups of companies over the same time intervals. The results are shown in the Appendix. Although the results indicate that there is no significant difference between the CARs with respect to any time interval, the application of the standard t test may not be appropriate to test for significant differences between CARs. The main reason is that the CAR values may deviate from normal distribution.
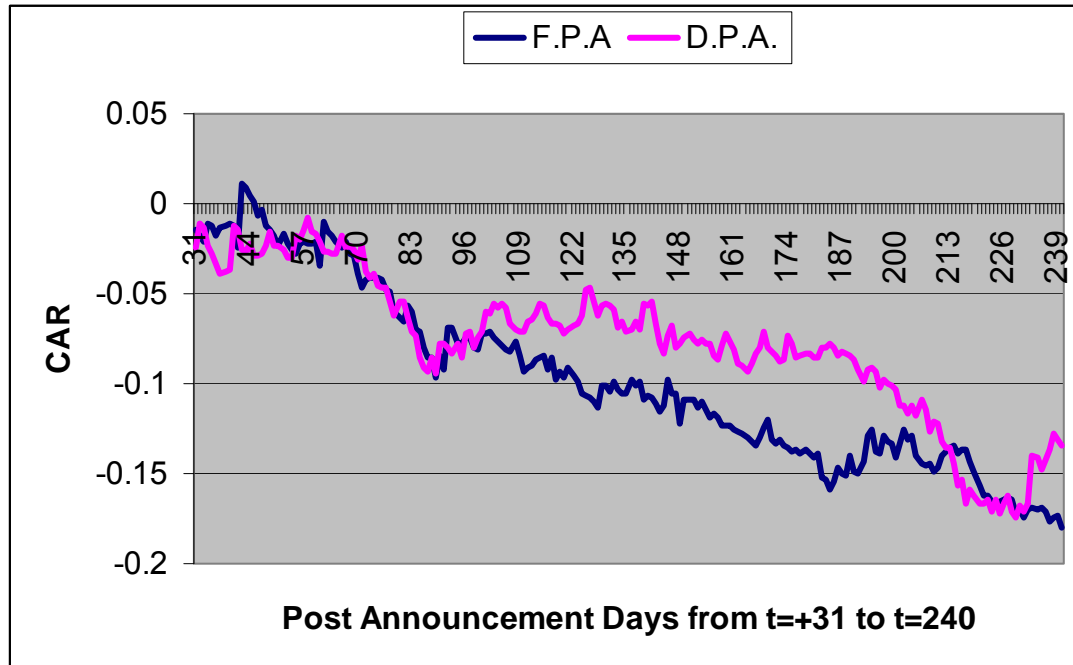
Figure 5. Cumulative Abnormal Returns at Post Announcement Days for All Targets (N = 115)

Figure 5 shows CARs at post announcement days from t = +31 to t = +240 for all targets. The black and grey curves represent foreign and domestic partial acquisitions, respectively. The trends of CARs for them are similar with no apparent distinction. On some post announcement days, they appear to overlap. Generally they are decreasing and are negative almost throughout the entire post announcement period from t = +31 to t = +240. Moreover, their levels of decrease do not show much difference. Based on the above reason, the difference of CARs between the two groups is not significant over post announcement days.

Table 6 reports the results of a linear regression analysis using CARs from day t = -5 to t = +5 as the dependent variable. The independent variables are the financial characteristics of the target: net working capital/total assets, total debt/total assets, market

value/ book value, price earnings ratio, return on assets, cash and short-term

investment/total assets, percentage acquired by acquirer, and type of acquisition.

Table 6. Results of the Regression of Cumulative Abnormal Returns (N = 92)

Panel A: Model Summary

				Change Statistics				
R	R^2	Adjusted R^2	Std. Error of the Estimate	R^2 Change	F Change	df1	df2	Sig. F Change
0.315[a]	0.099	0.012	0.171121242	0.099	1.141	8	83	0.345

Note. [a] Predictors: (Constant), Net working capital/total assets, Total debt/total assets, Market value/ book value, Price earnings ratio, Return on assets, Cash and short-term investment/total assets, Percentage acquired by acquirer, Type of acquisition.

Panel B: ANOVA[b]

	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.267	8	0.033	1.141	0.345[a]
Residual	2.430	83	0.029		
Total	2.698	91			

Note. [a] Predictors: (Constant), Net working capital/total assets, Total debt/total assets, Market value/ book value, Price earnings ratio, Return on assets, Cash and short-term investment/total assets, Percentage acquired by acquirer, Type of acquisition;
   [b] Dependent Variable: CAR (from day t = -5 to t = +5).

Panel C: Coefficients[a]

Variable	Coefficient	t	Sig.
Net working capital/total assets	0.248	1.577	0.119
Total debt/total assets	-0.050	-0.570	0.570
Market value/ book value	-0.013	-1.028	0.307
Price earnings ratio	0.002	0.994	0.323
Return on assets	0.016	0.165	0.869
Cash and short-term investment/total assets	-0.437*	-2.534	0.013
Percentage acquired by acquirer	0.138	1.160	0.249
Type of acquisition[b]	0.046	1.190	0.237

Note. [a] Dependent Variable: CAR (from day t = -5 to t = +5);
   [b] 0 if domestic partial acquisition; 1 if foreign partial acquisition;
   * Significant at the 0.05 level.

Panel A of Table 6 reports that the value of R^2 is 0.099. It implies that the eight

independent variables predict only a small part of the cumulative abnormal returns. Panel

B of Table 6 reports that the F-statistic is 1.141 and the p-value is 0.345. Panel C of Table

6 reports that the eight variables are analyzed; only the t-statistic of cash and short-term investment/total assets is significant at 0.05 level, which means CARs are negatively related to cash and short term investment/total assets. The other seven variables show insignificant t-statistics. Namely, they have not predicted the abnormal return for the targets effectively.

The type of acquisition was tested using alternative dummy variables: 1) 0 if domestic partial acquisition, 1 if foreign partial acquisition (see Table 6, Panel C); 2) 0 if the acquirer is Canadian company, 1 if the acquirer is American company (results available from author); 3) 0 if the acquirer is Canadian company, 1 if the acquirer is other than Canadian or American company (results available from author). The results of all three tests are insignificant, which implies that the type of acquisition has not predicted the abnormal return for the targets effectively.

3.4. Discussion

The results of this research support the previous literature on targets of domestic partial acquisitions. There are positive abnormal returns during the announcement period and there are negative abnormal returns during the post announcement period. The pattern of observed AARs and CARs obtained for both the valuation effect around the announcement and the post-acquisition performance for the targets is consistent with previous research in the literature. For instance, Mikkelson and Ruback (1985) find a significant CAR of +0.03 over the two day announcement period and the targets without takeover obtain a negative CAR in the subsequent year. Rosenstein (1989) finds significant positive abnormal returns for the targets around the announcement date. The acquired companies obtain significant positive CARs of + 0.02 from t = -1 to t = +1 and

37

negative returns over the post announcement period; the CAR is -0.0184 from t = +21 to t = +40 and -0.0139 from t = +41 to t = +60.

Choi (1991) also finds similar results. The CAR for the partially acquired targets from day t = -1 to t = 0 is +2.2 with a significant t-statistic of 11.69. Choi's (1991) research obtains the same result when there is no outcome after the partial acquisition, the CAR for the targets decreases and becomes negative in the subsequent 250 days. The results of Amoako-Adu and Smith's (1993) study show that the abnormal return on the event day is +13.03. They also show significant abnormal returns from day t = -20 to t = +10 as +22.36. Sudarsanam (1996) finds significantly positive CARs for all three subsamples (Small Group, Large Group and Creeping Group) from day t = -5 to t = +5 of 0.13, 0.18 and 0.07, respectively. For the post announcement period from day t = +6 to t = +750, CARs are negative for all three subsamples.

Akhigbe, Madura, and Whyte (2004) investigate partial acquisitions in the banking field from 1987 to 2001. Their results show significant positive CAR of +16.20 from day t = -1 to t = +1 and significant negative CARs of -0.82 from day t = +2 to t = +11. Torabzadeh and Dube (forthcoming) find significant positive abnormal returns for targets around the announcement from day t = -30 to t = +30. For those targets that retain their CEOs after the partial acquisition, they experience significant negative abnormal returns over the post announcement period from day t = +31 to t = +731.

The results of this research show significant positive CARs around the announcement day and negative CARs over the post announcement period for targets of foreign partial acquisitions. They reveal the nature of abnormal returns following foreign

partial acquisitions and domestic partial acquisitions in Canada, which is one of the contributions of my research.

There is almost no literature about foreign partial acquisitions; this research contributes to the foreign partial acquisition field. According to the literature on domestic partial acquisitions, I conclude that the wealth effect around the foreign partial acquisition announcement shows the market anticipation of a subsequent takeover. The CARs are negative for targets over the post announcement period since there is no further takeover after the foreign partial acquisition. In addition, this research contributes to the comparison of the difference between domestic partial acquisitions and foreign partial acquisitions.

Harris and Ravenscraft's (1991) results show that target wealth gains in foreign acquisitions are significantly higher than target wealth gains in domestic acquisitions. Their results show negative wealth gains in both foreign partial acquisitions and domestic partial acquisitions. This happens because after full acquisitions, acquirers pay premiums to the targets; however after the partial acquisitions, no premiums are paid if there are no full acquisitions within one year. Figure 5 shows that in some post acquisition periods, the negative abnormal returns for the targets of foreign partial acquisitions are visibly greater than domestic partial acquisitions, but these differences are insignificant. This may be because when cross-border full acquisition is achieved, the foreign acquirers pay higher premiums to the targets. When foreign partial acquisitions happen, the expectation of higher premiums rises. The disappointment after the foreign partial acquisition is greater than after domestic partial acquisition when no full acquisition is followed. The disappointment causes more negative abnormal returns. An important contribution of my

research is that it is the first study that compares the difference between abnormal returns for the targets of domestic partial acquisition and foreign partial acquisition.

The results of the regression analysis of cumulative abnormal returns (from $t = -5$ to $t = +5$) show that of the eight financial characteristics (net working capital/total assets, total debt/total assets, market value/ book value, price earnings ratio, return on assets, cash and short-term investment/total assets, percentage acquired by acquirer, and type of acquisition), only cash and short-term investment/total assets have a significant coefficient. Among these financial characteristics, net working capital/total assets, total debt/total assets, and price earnings ratio have insignificant coefficients, which are consistent with Torabzadeh and Bertin's (1992) research investigating full acquisitions. However, their research shows a significant coefficient of market value/book value.

In other prior research, it is controversial as to whether the percentage acquired by acquirer affects the abnormal return. The result of the percentage acquired by acquirer, which has an insignificant coefficient, is consistent with Amoako-Adu and Smith's (1993) research. They also obtain an insignificant coefficient for percentage acquired by acquirer. But Sudarsanam (1996) takes three subsamples of different percentage levels (Small Group, Large Group and Creeping Group), and he finds that the percentage acquired is one of the factors determining the effect of partial acquisitions.

4. Summary, Conclusion and Limitations

4.1. Summary and Conclusion

This study reviews the theoretical and empirical issues regarding partial acquisitions, and develops empirical tests for the returns of partially acquired companies after the partial acquisition by applying the CAR technique. Using a sample of partial acquisitions from 1997 to 2005, three major hypotheses are tested. The comparison is also designed to evaluate the difference between foreign partial acquisitions and domestic partial acquisitions.

The empirical evidence shows that partial acquisitions do yield wealth effect for the targets around the announcement date. There are significant positive abnormal returns in the event period for both foreign partial acquisitions and domestic partial acquisitions. This evidence is consistent with prior literature, which shows that due to the expectation of subsequent takeover or operation improvement, the stock price goes up around the announcement of partial acquisitions. From a business perspective, it provides a signal for investors or decision makers to buy and sell stocks at an advantageous time. One common strategy might be to buy stocks several days before the partial acquisition announcement date and to sell several days after the partial acquisition announcement date. This could be applied for both foreign partial acquisitions and for domestic partial acquisitions.

In a one-year observation period, the cumulative abnormal returns for targets of foreign partial acquisitions are significantly negative. Though insignificant, cumulative abnormal returns for targets of domestic partial acquisitions are also negative. CARs decrease within one year after the announcement. The expectation for the takeover

diminishes. This is consistent with prior literature, which shows that when there is no outcome (for instance, takeover and management change) after the partial acquisition, the abnormal returns are negative thereafter. Again from a business perspective, it is not recommended that investors or decision makers invest a large amount without existing evidence of plans for a complete takeover by the acquirer or a third party. This is especially true for foreign partial acquisition; more caution is warranted because the stock prices may decline more when no full takeover follows.

Moreover, the evidence does not support the hypothesis that the abnormal returns for foreign partial acquisitions are more than for domestic partial acquisitions since the difference is not significant in either the event period or in the observation period.

4.2. Limitations

The sample size is not very large. All of the partial acquisitions are checked for the years 1997 to 2005. On average, there are more than one hundred partial acquisitions per year. Unfortunately, most of them do not meet the criteria for this research. The majority of companies do not have a stock listed on the TSX. As a result, no stock prices could be collected for these companies. This restriction seriously reduced the initial sample size. A larger sample size might be more convincing and further validate the research.

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Appendix

The Statistical Difference of the Cumulative Abnormal Returns between Foreign Partial
Acquisition and Domestic Partial Acquisition Using Standard t-statistic

	CAR (F.P.A.) (N = 52)	CAR (D.P.A.) (N = 63)	Difference	t-statistic
-1, +1	0.03123	0.02891	0.0023	0.12
-5, +5	0.03847	0.03098	0.0075	0.25
-10, +30	-0.00519	-0.02778	0.0226	0.53
-10, +240	-0.17986	-0.13495	-0.0449	-0.30
+31, +240	-0.17468	-0.10716	-0.0675	-0.53