Impact of Canadian SOX on Canadian Acquisitions

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We examine the effects of Ontario Bill-198 (CSOX-2003), the strictest corporate regulation in Canada. Despite some drawbacks, we find the Act has added significant value contrary to many practitioners' beliefs. Using a large sample of Canadian tender-offers between 1996 and 2009, we find that both target and acquirer shareholders experience higher abnormal returns closer to announcement dates in the post-CSOX period. Using industry adjusted portfolio, we also find that the long term post-acquisition operating performances for the acquiring firms have significantly improved in the post-Act period. Overall, our results suggest that CSOX has an incremental positive impact on Canadian acquisitions.

INTRODUCTION

United States Congress enacted the Sarbanes-Oxley Act (2002) in the aftermath of large scale corporate scandals in the turn of the century. This was the strictest regulation in the post war era. In order to create level playing field for the cross-listed Canadian firms and to boost investor confidence in the north of the border, Canada soon followed suit. Ontario Bill 198 (CSOX) was passed in the fall of 2002 by the Ontario legislature. This is one of the most comprehensive securities regulations passed by any Canadian province. Though the Act was not perfect, it addressed a broad array of areas like accounting standards, transparency, corporate governance etc. in order to bring more fairness to the market.

In this paper, we analyze the impact of CSOX on Canadian tender offers. As the Act has introduced sweeping reform in corporate governance and significantly increased penalties for corporate wrongdoings, we expect the announcement effects for acquisitions to be stronger in the post Act period. This is likely to result in less price run up for target shares around the announcement. Secondly, if the Act was successful in bridging the gap between management and shareholders' interests then the latter are expected to show more confidence on the acquisition activities undertaken by the former. This in turn is likely to result in higher returns for acquirer shareholders around announcements. Finally, if the management is working in the best interests of the shareholders, if they are making good acquisition decisions, then we should observe better post-acquisition performance by the acquirers, if not, then at least less underperformance.

Pre-bid price run up in target firms is a commonly discussed phenomenon (Keown and Pinkerton, 1981). Empirical evidence is in plenty regarding insider trading around major corporate announcements (Karpoff and Lee, 1991; and Keown and Pinkerton, 1981). As long as the benefits outweigh the costs of getting punished, the insiders will engage in transactions based on private information. As CSOX has introduced stricter penalties for corporate wrongdoings, we expect it to significantly reduce the incentives for corporate insiders to trade on private information.

Empirical research on corporate acquisitions has examined synergy, agency, and hubris as possible motives for acquisitions. Berkovitch and Narayanan (1993) report that synergy driven acquisitions are undertaken for economic gains, agency driven ones are executed to profit the management, and hubris driven ones are mainly honest mistakes with no economic gains. As the Act has imposed more transparency, as it has reduced the incentive to trade on private information, as it is more likely to reduce the gap between management and shareholders' interests, we are likely to observe a stronger influence of synergy on acquisition activities.

It has been well-documented in the literature that acquiring firms underperform in the post-acquisition period (Agrawal et al., 1992; Loughran and Vijh, 1997). If CSOX was successful in aligning the interests of all the stakeholders then management would undertake good acquisition transactions and would most likely do a better job operating them in the post-acquisition period. Therefore, we expect to see improvement in post-acquisition operating performance or at minimum less underperformance.

In this paper, we examine the impact of CSOX on pre-bid price run up, abnormal returns around announcements for targets and acquirers, takeover motive, and post-acquisition operating performance for acquirers. Using a large Canadian sample of successful tender offers between 1996 and 2009, we find the following: (1) pre-bid price run up vis-à-vis the information leakage situation has an anemic incremental improvement; (2) abnormal returns for targets close to announcement dates are higher in the post-CSOX period; (3) abnormal returns for acquirers for the same period are also higher post CSOX; (4) the impact of synergy is higher in the post-CSOX sample; and finally, (5) the post-acquisition operating performance has improved in the post Act period.

The remainder of the paper is organized as follows: the next discusses the existing theoretical and empirical literature; the following section describes the data and research methodology; then we discuss the sample and the empirical results; and finally we conclude the study in the last section.

LITERATURE REVIEW

Ontario Bill 198 aka CSOX

The United States Congress passed the Sarbanes-Oxley Act (SOX) in the summer of 2002, and it went into effect on August 29, 2002. This was the strictest regulation passed in the post war era. In order to ensure fairness to the cross-listed Canadian firms and to enhance investor confidence, Ontario government immediately proposed Bill 198 (CSOX) titled "An Act to implement Budget measures and other initiatives of the Government", also known as the "Budget Measure Act" in the fall of 2002. The Act went into full effect on April 7, 2003 although it received Royal Assent on December 9, 2002. CSOX introduced several sweeping changes to Ontario security regulations to ensure better corporate governance and to bring more transparency to corporate deals and trades. The Act substantially increased civil and criminal penalties for corporate wrongdoers. As it has significantly increased the penalties for corporate wrongdoings, it should deter informed insider trading.

Price Run-Up, Information Leakage and Market Anticipation

Significant price run-up and insider trades for target shares around acquisition announcement dates have been well-documented in the literature (Keown and Pinkerton, 1981). Keown and Pinkerton (1981) find that information leakage and insider trading take place before the announcement date. But they also state that semi-strong form efficiency hold and therefore all the market reaction is realized by the day after the announcement. Schwert (1996) reports that run ups cost money to the bidder shareholders. The market anticipation hypothesis contends that investors use a number of publicly available information sources to decipher important events prior to public announcement, with share prices impacted to reflect updated beliefs (e.g., Jensen and Ruback, 1983). Due to the stricter regulatory regime brought in by CSOX, we expect the run up situation to improve which should in turn add to the returns of bidding firm shareholders around tender announcements.

Motives for Acquisitions and Post-Acquisition Performance

Three different types of acquisitions are discussed by Berkovitch and Narayanan (1993), namely synergy, agency, and hubris driven acquisitions. By analyzing 330 tender offers between 1963 and 1988, they conclude that synergy driven takeovers are those where target, acquirer, and total gains are all positive and are positively correlated with each other; agency driven acquisitions are defined by a negative correlation between target and total gains, and target and acquirer gains. Our main focus is on synergy or value maximizing, and agency driven transactions. Malatesta (1983) analyzes 336 completed mergers between 1969 and 1974 and reports that mergers are primarily agency motivated and that these transactions only benefit target shareholders. Boardman et. al. (1998) reports that insiders associated with acquiring firms sought fewer but more profitable takeovers after the effective tightening of regulations.

It has been well-documented in the literature that acquiring firms underperform in the post-acquisition period (Agrawal et. al., 1992; Loughran and Vijh, 1997 etc.). If CSOX has resulted in a better alignment of management and shareholders' interests, if that results in more synergy driven transactions then we will most likely observe a better long-term performance by the acquiring firms in the post-acquisition period, if not then at least less underperformance.

Hypotheses

The effect of CSOX could be observed in various ways. First, we expect the pre-bid price run ups to decline in the post-CSOX period since the penalties for informed insider trading has increased significantly. Second, as the Act has tightened up the loose ends on corporate governance and imposed more penalties for insider wrongdoings, we are more likely to observe less opportunistic trades around acquisition announcements resulting in the announcements events to be more informative for both targets and acquirers. Third, we expect synergy to have a stronger presence as CSOX has enforced better corporate governance resulting in a better alignment of interests between management and shareholders. Finally, if CSOX is successful in improving the presence of synergy, and if the better corporate governance measures work to mitigate agency problems, we will most likely observe the acquiring firms to show better operating performance post-acquisition, or at minimum *less underperformance*.

DATA & METHODOLOGY

Data Selection and Sample Description

Our sample consists of 238 successful Canadian tender offers collected from SDC Platinum database covering dates from January 1, 1996 through December 31, 2009. The data consists of transactions where: (i) targets and acquirers are Canadian; (ii) both are listed on Toronto Stock Exchange, i.e. public firms; (iii) they are not cross-listed in the United States (as the US firms will be covered by US-SOX and will contaminate the sample); (iv) deal value greater than one million dollars; (v) both have stock returns and financial data available from Canadian Financial Markets Research Center (CFMRC) and Compustat respectively; (vi) acquiring firm owns 100% of the target after the completion of the deal. Pre-CSOX announcements cover announcement dates from January 1, 1996 to April 6, 2003; and for post-CSOX sample the dates are from April 7, 2003 onwards.

Table 1 provides a detailed breakdown of the number of completed tender offers between 1996 and 2009. We have a total of 159 transactions in the pre-CSOX period for a time span of little over 8 years; on the other hand, 79 acquisitions were completed in the post-CSOX period covering about 6 years. It is to be noted that same industry acquisitions have increased in the post-CSOX period (49.7% for pre-CSOX v. 62% for post-CSOX). A particular hike in acquisitions in the late '90s could be attributed to the economic boom during that period. Rhodes-Kropf and Viswanathan (2004) mentions the hike in merger activities in the late 1990s.

Table 2 provides some summary statistics about the acquiring and target firms, and the deals. We would like to mention some key points—both acquirer and targets carry higher leverage, and better operating performance; in addition, premiums have increased, and there are less diversification transactions in the post-CSOX era.

TABLE 1
SAMPLE DESCRIPTION BY YEAR AND DIVERSIFICATION

Year	Total Deals	Different Industry	Same Industry	Relative Deal Size
1996	15	4	11	8.82%
1997	24	11	13	15.64%
1998	20	10	10	15.19%
1999	24	11	13	36.55%
2000	41	26	15	15.55%
2001	24	11	13	35.10%
2002	11	7	4	18.52%
2003	3	2	1	2.22%
2004	9	4	5	36.98%
2005	8	5	3	29.31%
2006	12	3	9	18.04%
2007	21	13	8	19.67%
2008	15	8	7	12.49%
2009	11	5	6	23.44%
Total	238	120	118	21.10%

Notes: Our sample consists of 238 successful Canadian tender offers collected from SDC Platinum database covering dates from January 1, 1996 through December 31, 2009. The data consists of transactions where: (i) targets and acquirers are Canadian; (ii) both are listed on Toronto Stock Exchange, i.e. public firms; (iii) they are not cross-listed in the United States (as the US firms will be covered by US-SOX and will contaminate the sample); (iv) deal value greater than one million dollars; (v) both have stock returns and financial data available from Canadian Financial Markets Research Center (CFMRC) and Compustat respectively; (vi) acquiring firm owns 100% of the target after the completion of the deal. Pre-CSOX announcements cover announcement dates from January 1, 1996 to April 6, 2003; and for post-CSOX sample the dates are from April 7, 2003 onwards.

TABLE 2
SUMMARY STATISTICS

VARIABLES	PRE CSOX (1996 - 2003) [N = 159] MEAN	MEDIAN	POST CSOX (2003 - 2009) [N = 79] MEAN	MEDIAN	POST - PRE MEAN	MEDIAN
ACQUIRER CHARACTERISTICS						
Firm Size (log of book value of assets)	8.17	7.25	8.17	6.66	0.00	-0.60**
Leverage	0.51	0.40	0.70	0.40	0.19*	0.00
Operating Performance (ROA)	0.13	0.12	0.16	0.17	0.03**	0.05*
Sales ($ millions)	1309.25	645.50	1781.97	294.21	472.72	-351.29*
TARGET CHARACTERISTICS						
Firm Size (log of book value of assets)	6.79	4.96	6.91	5.20	0.12**	0.23**
Leverage	0.49	0.39	0.63	0.50	0.14**	0.11*
Operating Performance (ROA)	0.04	0.03	0.09	0.06	0.05*	0.03*
Sales ($ millions)	286.07	73.11	860.50	118.17	574.43*	45.06**
DEAL CHARACTERISTICS						
Transaction Value ($ millions)	204.21	124.61	369.63	188.09	165.42*	63.48*
Relative Deal Size	0.21	0.08	0.21	0.18	0.00	0.10
Delay (in days)	75.00	64.00	93.00	84.00	18.00**	20.00*
Diversification (dummy)	0.51	1.00	0.38	0.00	-0.13**	-1.00***
Premium (%)	23.17	20.84	50.03	26.56	26.86**	5.72*
Synergy (dummy)	0.48	0.00	0.47	0.00	-0.01	0.00

Notes: Operating performance is calculated as earnings before interest, tax, depreciation, and amortization (EBITDA) scaled by total assets; Relative deal size is calculated as transaction value reported in SDC platinum database scaled by acquirer market value; Delay is the time lag between the first announcement of a bid and the final acquisition of the target; Diversification (dummy) is one if the target and the acquirer have different 4-digit SIC codes and zero otherwise, MSV (1990); Premium is based on the target price on the day before the announcement. Relative deal size is measured as Transaction Value reported in SDC scaled by the Market Value of the acquirer. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively.

Methodology

Tests for Pre-Bid Price Run up and Announcement Effects for Target Shareholders

Pre-bid price run ups in target firms have been observed throughout the history of mergers and acquisitions (Keown and Pinkerton, 1981). Using standard event study methodology, we analyze the cumulative abnormal returns (CAR) of target firms around announcement dates, starting from t = -60 days to t = 30 days, for both pre- and post- CSOX samples. We use different event windows within this time frame to get a clearer picture of the price run ups and information leakage in the target firms.

Next, we undertake some cross-sectional regression analysis where cumulative abnormal return around announcement date, $CAR_{-1,+1}$ is the dependent variable. We control for a CSOX dummy (which equals to one if the announcement date was after April 6, 2003, and zero otherwise), some target firm characteristics like firm size, leverage, and free cash flow, and some deal characteristics like relative deal size, premium, 'Hostile' dummy, and 'Cash' dummy.

$$CAR_{-1,+1} = \beta_0 + \beta_1 * C\ SOX + \beta_2 * Firm\ size + \beta_3 * Leverage + \beta_4 * Free\ cash\ flow + \beta_5 * Relative\ deal\ size + \beta_6 * Premium + \beta_7 * Hostile + \beta_8 * Cash + \varepsilon \quad (1)$$

Tests for Announcement Effects for Acquirer Shareholders

As we are expecting CSOX to better align management and shareholders' interests, the management will most likely engage in more synergy driven transactions. If the investors are confident that the management is working in their best interest, we should observe an increase in cumulative abnormal

return (CAR) for acquirer shareholders around the announcement dates. Using similar event study and cross-sectional analysis as discussed in the previous section for targets, we test the impact of announcements for acquirer shareholders. The cross sectional equation remains the same as eq [1].

Tests for Synergy versus Agency Driven Acquisitions

We use the Berkovitch and Narayanan (1993) methodology to identify synergy and agency driven transactions. Based on their simpler definition if the target, acquirer, and total gains are all positive then the corresponding transaction is a synergy driven one or else it is agency driven. In a more robust method, they classify the transactions little differently—if target, acquirer, and total gains are all positive and have positive correlation between each other then it is synergy driven transaction; for agency driven acquisitions target and total gain and target and acquirer gain are all negatively correlated. They insist that agency motive is more prevalent in acquisitions with negative total gain whereas synergy is more common for positive total gain transactions. Following their methodology, we check the correlation between target and total gain, and target and acquirer gain, for both the positive and negative gain subsamples as well as for the full sample.

$$\textit{Target Gain} = \alpha + \beta\,(\textit{Total Gain}) \tag{2}$$

$$\textit{Target Gain} = \alpha + \beta\,(\textit{Acquirer Gain}) \tag{3}$$

Here β is the correlation coefficient for each equation. The higher the magnitude of β, the stronger the presence of synergy or agency motive depending on the sample. For example, if we are analyzing a positive total gain subsample then higher value of β for equation [2] would mean a stronger presence of synergy and vice versa.

Post-Acquisition Operating Performance

Following Barber and Lyon (1996), we use Return on Assets (ROA) and Return on Sales (ROS) as operating performance measures. We conduct all the ratio analysis on an industry-adjusted basis. Following and expanding from Heron and Lie (2002), we run some cross sectional tests for the ROA and ROS measures:

$$P_i = \beta_0 + \beta_1 * \textit{CSOX (dummy)} + \beta_2 * [\textit{Assets (target)} / (\textit{Assets (target + acquirer)})] + \beta_3 * \textit{M-B (acquirer)} + \beta_4 * \textit{M-B (target)} + \beta_5 * \textit{Same Industry (dummy)} + \beta 6 * \textit{Delay} + \varepsilon \tag{4}$$

Here P_i represents the operating performance measures namely average 3-year ROA, average 5-year ROA, average 3-year ROS, and average 5-year ROS.

EMPIRICAL RESULTS

Evidence on Pre-Bid Price Run up and Announcement Effects on Target Shareholders

We first examine pre-bid price run up around the acquisition announcement dates. We calculate the cumulative abnormal returns (CAR) from t = -60 days to t = +30 days where t = 0 is the announcement date.

Figure 1 show that the pre-announcement abnormal returns are lower in the post-CSOX period for the most part but the upward drift starts around the same time period before the announcement for both pre- and post-CSOX regimes. It appears that the tightening of regulations has some incremental impact on the information leakage front but the regulators have to tighten timelier filing requirement in order to further improve the pre-announcement upward drift in the post-CSOX sample. Table 3 reports the event study results for different windows around the acquisition announcement dates. Our results show that the Act clearly made some significant contribution as far as the target shareholder returns are concerned. The

CARs around announcement dates, e.g., $CAR_{0,+1}$, $CAR_{-1,+1}$, $CAR_{-1,0}$, and $CAR_{-5,0}$ are all significantly higher for the post-CSOX period. For example, the two day announcement $CAR_{0,+1}$ is 7.87% higher with 5% significance for the post-CSOX period. It is also to be noted that the overall return for the entire period (t = -60 to +30) is higher in the post Act sample.

FIGURE 1
CUMULATIVE ABNORMAL RETURN (CARS) FOR TARGETS AROUND THE ANNOUNCEMENT DATE

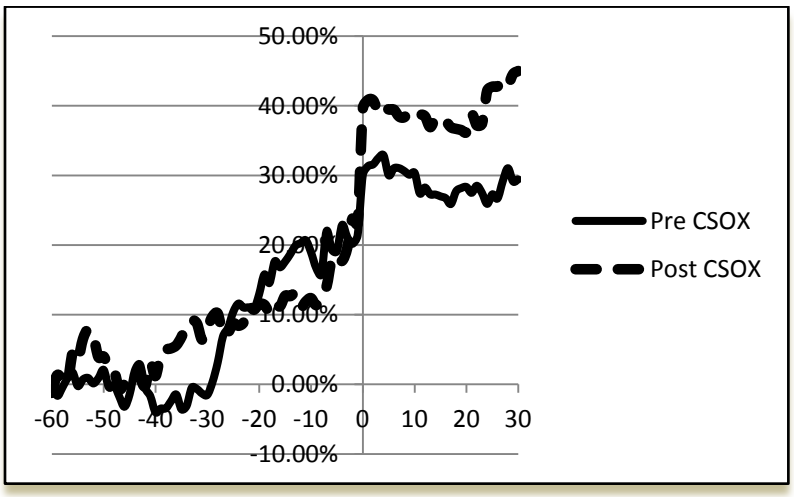


TABLE 3
CUMULATIVE ABNORMAL RETURN (CARS) FOR TARGETS AROUND THE ANNOUNCEMENT DATE

Event Window	MEAN				MEDIAN			
	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)	Post - Pre	t-stat	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)	Post - Pre	z-stat
[-60, -30]	6.10%	8.10%	2.00%	0.68	2.87%	6.84%	3.97%	0.55
[-30, -10]	21.80%***	5.96%	-15.84%	-0.27	22.21%**	3.85%	-18.36%	-0.67
[-10, -5]	-0.51%	6.61%**	7.12%	1.58	-2.98%*	5.74%	8.72%	0.88
[-5, 0]	10.70%***	21.67%***	10.97%***	2.45	11.70%**	20.36%**	8.66%**	1.99
[-1, 0]	10.53%***	15.79%***	5.26%***	3.01	12.52%**	14.68%***	2.16%**	2.01
[0, 0]	8.76%***	16.56%***	7.80%***	2.87	11.43%**	15.63%***	4.20%***	4.27
[-1,+1]	12.03%***	17.01%***	4.98%***	3.28	14.41%**	16.13%***	1.72%***	3.89
[0, +1]	9.91%***	17.78%***	7.87%**	1.98	11.55%***	17.08%***	5.53%***	2.97
[0, +5]	8.62%***	16.4%***	7.78%**	2.11	10.34%*	15.22%**	4.88%*	1.65
[+5, +30]	-3.45%	4.01%	7.46%	1.14	-5.15%	3.34%	8.49%	1.11
OBSERVATIONS	114	57			114	57		

Notes: This table reports the abnormal returns for target shareholders around acquisition announcement dates for both pre- and post-CSOX periods. Pre-CSOX announcements cover announcement dates from January 1, 1996 to April 6, 2003; and for post- CSOX sample the dates are from April 7, 2003 onwards. We report different windows around the acquisition announcement date, starting from t = -60 to t = +30 days, where t = 0 is the announcement date. This is a comparison study between pre- and post- CSOX periods to test the differences in activities around merger between these two regimes. Returns are market adjusted. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively.

TABLE 4
REGRESSION OF CUMULATIVE ABNORMAL RETURNS FOR TARGETS ON EXPLANATORY VARIABLES

VARIABLES	MODEL I	MODEL II	MODEL III	MODEL IV
CSOX (dummy)	0.019*	0.014*	0.008*	0.009*
Target Characteristics				
Firm Size		-0.001**		-0.004**
Leverage		-0.011		-0.007
Free Cash Flow		-0.151*		-0.091*
Deal Characteristics				
Relative Deal Size			-0.013	-0.017
Premium			0.051**	0.079**
Hostile (dummy)			0.007	0.012
Cash (dummy)			0.01	0.012
R-Square	0.007	0.012	0.031	0.019
Sample Size	171	143	171	143

Notes: The dependent variable we use here is Cumulative Abnormal Return from t = -1 to t = +1, $CAR_{-1,+1}$. First model uses a 'CSOX' dummy (equals to one if the announcement date was after April 6, 2003, and zero otherwise); Second model uses CSOX dummy along with target characteristics controls like firm size (log of total assets), leverage (long term debt scaled by total assets), and free cash flow (EBITDA scaled by total assets); Third model uses 'CSOX' dummy along with deal characteristics control variables like relative deal size (transaction value scaled by acquirer's market value), premium (as reported on SDC platinum), 'Hostile' dummy (equals to one if the deal was flagged as hostile in SDC Platinum), and payment method dummy 'Cash' (equals to one if the deal was an all cash transaction). Returns are market adjusted. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively.

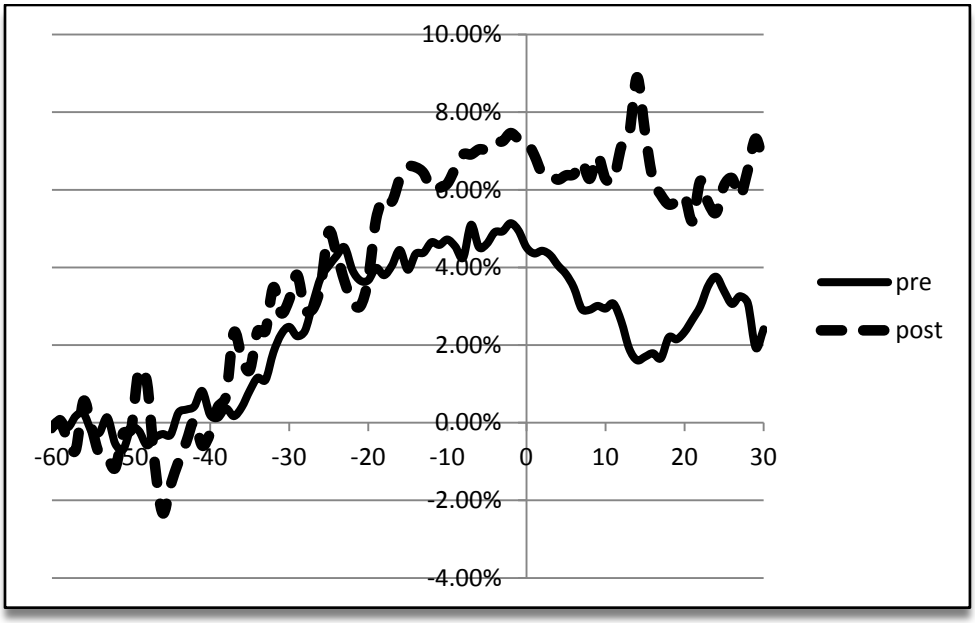
Table 4 presents the cross sectional results with $CAR_{-1,+1}$ as the dependent variable. We find that the CSOX dummy is positive across all four models with statistical significance which means that CSOX has an incremental positive impact on target shareholder returns around tender announcements. We also find positive significant coefficients for premiums. This could be interpreted as bidders showing higher confidence on the target stock price on day t = -1, and hence they are willing to pay higher premium based on that price in the post Act period. We assume that this change in bidder behavior is due to the fact that there is less information leakage in the post-CSOX period and hence the perception is that the price on day t = -1 is not as contaminated as it used to be.

Evidence on Announcement Effects on Acquirer Shareholders

Next, we analyze the impact of acquisition announcements on acquirer shareholders by examining the CARs around announcements [from t = -60 days to t = +30 days where t = 0 is the announcement date].

Figure 2 shows a clear upward drift for both pre- and post-CSOX shareholder returns before announcement. Even though the magnitude is smaller than what we find for targets, the CARs around announcement dates, e.g., $CAR_{0,+1}$, $CAR_{-1,+1}$, $CAR_{-1,0}$, and $CAR_{-5,0}$ are all significantly higher for the post-CSOX period. For example, the two day announcement $CAR_{0,+1}$ is 0.17% higher with 5% significance for the post-CSOX period. Again, we would like to point that acquiring firm shareholders are better off in the post Act period if we consider the returns for the entire period i.e. t = -60 to +30 days. These results show that investors are showing more confidence on the tender offers undertaken by the management.

FIGURE 2
CUMULATIVE ABNORMAL RETURN (CARS) FOR ACQUIRERS AROUND THE ANNOUNCEMENT DATE



In Table 6 we report the results from the cross sectional analysis with $CAR_{-1,+1}$ as the dependent variable. We use similar controls as we do for the target return analysis, i.e. CSOX dummy and some firm (firm size, leverage, and free cash flow) and deal characteristics (relative deal size, hostile dummy, and cash dummy) variables. The CSOX dummy is positive and significant for Model I, but when we control for other factors in Models II to Model IV, it does not show any statistical significance.

In summary, we conclude that the Act has an incremental positive contribution towards acquiring firm shareholder returns but the contribution is weaker than that of the targets.

TABLE 5
CUMULATIVE ABNORMAL RETURN (CARS) FOR ACQUIRERS AROUND THE ANNOUNCEMENT DATE

	MEAN				MEDIAN			
Event Window	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)	Post - Pre	t-stat	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)	Post - Pre	z-stat
[-60, -30]	2.47%*	3.17%*	0.70%*	1.66	1.78%**	3.11%*	1.33%*	1.71
[-30, -10]	2.44%**	3.34%	0.90%*	1.81	2.36%**	4.63%*	2.27%*	1.65
[-10, -5]	0.03%***	0.99%**	0.96%**	1.98	0.44%**	0.93%**	0.49%*	1.68
[-5, 0]	0.00%***	0.22%**	0.22%**	2.17	-0.38%***	0.42%***	0.80%***	3.14
[-1, 0]	-0.62%**	-0.20%*	0.42%**	2.11	-0.57%***	-0.08%**	0.49%**	1.98
[0, 0]	-0.43%***	-0.05%**	0.38%***	2.87	-0.21%**	0.00%**	0.21%*	1.87
[-1,+1]	-0.78%**	-0.57%**	0.21%**	2.01	-0.51%***	-0.20%**	0.31%**	2.09
[0, +1]	-0.59%***	-0.42%**	0.17%**	1.97	-0.29%**	-0.17%**	0.12%*	1.81
[0, +5]	-1.12%**	-0.94%*	0.18%*	1.65	-0.98%*	-0.39%**	0.59%*	1.73
[+5, +30]	-1.64%*	0.35%*	1.99%*	1.73	-1.34%*	0.22%*	1.56%*	1.84
OBSERVATIONS	119	58			119	58		

Notes: This table reports the abnormal returns for bidder shareholders around acquisition announcement dates for both pre- and post-CSOX periods. Pre-CSOX announcements cover announcement dates from January 1, 1996 to April 6, 2003; and for post- CSOX sample the dates are from April 7, 2003 onwards. We report different windows around the acquisition announcement date, starting from t = -60 to t = +30 days, where t = 0 is the announcement date. This is a comparison study between pre- and post- CSOX periods to test the differences in activities around merger between these two regimes. Returns are market adjusted. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively.

TABLE 6
REGRESSION OF CUMULATIVE ABNORMAL RETURNS FOR ACQUIRERS ON EXPLANATORY VARIABLES

VARIABLES	MODEL I	MODEL II	MODEL III	MODEL IV
CSOX (dummy)	0.002*	0.001	0.003	0.001
Acquirer Characteristics				
Firm Size		-0.003*		-0.005*
Leverage		0.081		0.043
Free Cash Flow		0.023		0.016
Deal Characteristics				
Relative Deal Size			-0.071	-0.066
Hostile (dummy)			-0.191	-0.172
Cash (dummy)			0.031	0.019
R-Square	0.018	0.021	0.059	0.081
Sample Size	177	161	177	161

Notes: The dependent variable we use here is Cumulative Abnormal Return from t = -1 to t = +1, $CAR_{-1,+1}$. First model uses a 'CSOX' dummy (equals to one if the announcement date was after April 6, 2003, and zero otherwise); Second model uses CSOX dummy along with target characteristics controls like firm size (log of total assets), leverage (long term debt scaled by total assets), and free cash flow (EBITDA scaled by total assets),; Third model uses 'CSOX' dummy along with deal characteristics control variables like relative deal size (transaction value scaled by acquirer's market value), premium (as reported on SDC platinum), 'Hostile' dummy (equals to one if the deal was flagged as hostile in SDC Platinum), and payment method dummy 'Cash' (equals to one if the deal was an all cash transaction). Returns are market adjusted. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively.

Evidence on Agency versus Synergy Acquisitions

Following Berkovitch and Narayanan (1993), we analyze the acquisition motives for the transactions. Table 7 reports the correlations between target and total gains, and target and acquirer gains, for the full sample. We find that correlation between target and total gains is positive for both pre- and post-CSOX periods. This signifies that synergy is dominant for both samples. We also find that the magnitudes of correlation (β) are higher for the post-CSOX period ($\beta = 0.043$ and $\beta = 0.66$ for pre- and post-CSOX full sample respectively). A higher magnitude of the correlation factor signifies more dominance of synergy (BN 1993). We find that there is no significant relationship between target and acquirer gains and therefore, we cannot rule out the presence of hubris or agency from our sample (BN 1993). We have conducted tests for positive and negative total gain subsamples as well, but did not report it for brevity as the results were qualitatively similar.

TABLE 7
RELATIONSHIP BETWEEN TARGET GAIN AND TOTAL AND ACQUIRER GAINS

DEPENDENT VARIABLE = TARGET GAIN	FULL SAMPLE			
	MODEL I		MODEL II	
	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)
INTERCEPT	117.900*** (4.18)	186.211 (1.33)	116.046*** (3.89)	623.318* (1.84)
TOTAL GAIN	0.043** (2.47)	0.660*** (7.67)		
ACQUIRER GAIN			0.030 (1.58)	0.223 (0.72)
R-SQUARE	0.119	0.072	0.053	0.009
SAMPLE SIZE	114	57	114	57

Notes: According to Berkovitch and Narayanan (1993), if target, acquirer, and total gains are all positive and have positive correlation between each other then it is synergy driven transaction; for agency driven acquisitions target and total gain and target and acquirer gain are all negatively correlated. They insist that agency motive is more prevalent in acquisitions with negative total gain whereas synergy is more common for positive total gain transactions. Following their methodology, we check the correlation between target and total gain, and target and acquirer gain, for both the positive and negative gain subsamples as well as for the full sample. The results for positive and negative gain subsamples are available upon request. Following their methodology, we calculate the cumulative abnormal return around the announcement date for both target and acquirer firms. Market model estimates for each firm were calculated using a maximum of 255 trading days of daily returns data beginning 127 days before the announcement of the first tender bid. Target gain is calculated by multiplying the CAR by the market value of target's equity as of the end of six trading days prior to first announcement for the target minus the value of target shares held by the acquirer before the announcement. Likewise, the acquirer gain is calculated by multiplying the CAR by the market value of acquiring firm as of the end of six trading days prior to the first announcement made by the acquiring firm. The total gain is the sum of the target and acquirer gains. Coefficients are estimated for the entire sample for each regime (pre- and post-CSOX) as well as subsamples of positive and negative total gains. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively.

In summary, we find evidence that synergy has a stronger presence in the post Act period. As this improvement could be contributed to many factors, we are confident that the presence of a strict regulation like CSOX is one of the contributing factors as it has mandated regulatory changes to better align management and shareholder interests.

Evidence on Post-Acquisition Operating Performance

Post-acquisition underperformance is a widely noted phenomenon in finance literature. If CSOX was successful in motivating management to work in the best interests of the shareholders, we will most likely

observe an improvement in the post-acquisition operating performance of the acquiring firms or at least less underperformance.

Table 8 reports the post-acquisition long term operating performance for the acquiring firms. In panel A, we present industry adjusted return on assets (ROA) for a total of six year time period starting from the year of the acquisition. We find that both the pre- and post-CSOX sample underperform their respective industries over three and five year periods but the post-CSOX sample shows less underperformance compared to its pre-CSOX counterpart. For example, average three year ROA is higher for the post-CSOX sample by 1.7% with 5% significance; the average five year ratio shows similar trend. It has been well-known that firms that acquire other firms for the purpose of diversification show poor post-acquisition performance (MSV, 1990; Laeven and Levine, 2007; Hoechle et al, 2012). Therefore, we repeat all the performance tests for same and different industry subsample and the results do not change qualitatively. We also repeat all these performance tests using ROS (return on sales). The results are qualitatively same as the ROA ones. We do not report those for brevity. Results will be provided from the author upon request.

Panel B reports the cross-sectional analysis with long term industry adjusted ROA as the dependent variables. We control for CSOX dummy, ratio of targets assets to target and acquirer combined assets, market-to-book for acquirer, market-to-book for target, same industry dummy, and a delay variable. It is to be noted that the CSOX dummy is positive and significant for both models meaning long term post-acquisition operating performance (ROA) of the acquirers has improved in the post-CSOX period. Again, we ran the same tests for ROS measures and the results were qualitatively similar. Hence we do not report them for brevity.

We conclude from this section that acquiring firms' operating performances have improved in the post-CSOX period. Although they might be underperforming their respective industries, the magnitude of underperformance has significantly dropped. As CSOX has mandated provisions to better alignment of stakeholder interests, we could conclude that it seems to be working and hence we observe this long term improvement in operating performance.

TABLE 8
OPERATING PERFORMANCE ANALYSIS

Panel A: Detailed Operating Performance Analysis

YEAR	Pre CSOX (1996 - 2003)	Post CSOX (2003 - 2009)	Post - Pre
0	-3.22%	-1.07%*	2.15%*
+1	0.00%***	0.42%*	0.42%
+2	-3.96%**	-1.21%**	2.76%*
+3	-3.26%***	-1.81%*	1.45%*
+4	-7.32%***	-3.22%**	4.10%**
+5	-2.72%***	-0.86%*	1.86%*
AVERAGE 3-YEAR	-2.39%***	-0.70%**	1.69%**
AVERAGE 5-YEAR	-3.41%***	-1.00%**	2.41%**

Panel B: Cross-Sectional Analysis

Industry Adjusted ROA	Average 3-year	Average 5-year
CSOX (dummy)	0.011**	0.017**
	(2.09)	(1.98)
Assets (Target) / Assets (Target + Acquirer)	0.001	0.003
	(0.39)	(0.91)
M to B (Acquirer)	0.021***	0.011**
	(2.97)	(2.36)
M to B (Target)	-0.001	-0.002*
	(-1.49)	(-1.71)
Same Industry (dummy)	0.009*	0.017**
	(1.77)	(2.11)
Delay	-0.001	-0.000
	(-0.63)	(-0.19)
Sample Size	161	137
Adjusted R-square	0.011	0.009

Notes: Pre-CSOX announcements cover announcement dates from January 1, 1996 to April 6, 2003; and for post-CSOX sample the dates are from April 7, 2003 onwards. Panel A reports the detailed yearly post-acquisition operating performance. Operating performance is measured as the return on assets (ROA) and return on sales (ROS). Barber and Lyon (1996) also use ROA and ROS as operating performance measures. ROA is the ratio of operating income scaled by total assets where operating income is measured as earnings before interest, taxes, depreciation and amortization (EBITDA). Likewise, ROS is measured as the ratio of operating income (EBITDA) scaled by sales revenue. We analyze the ratios for 6-year period starting from the year of the announcement to five years after the acquisition. Panel B reports the cross sectional analysis where long term operating performance measures are the dependent variables. Adapting and expanding from Heron and Lie (2002) we use independent variables like CSOX dummy (equals to one if the announcement date was after April 6, 2003, and zero otherwise), ratio of targets assets to target and acquirer combined assets (assets are book value of assets and at time t = -1), market-to-book for acquirer (at t = -1), market-to-book for target (at t = -1), same industry dummy (equals to one if 4-digit SIC matches, MSV 1990), and a delay variable (the time lag between the first announcement of a bid and the final acquisition of the target).***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels respectively. Only ROA related results are presented for brevity. ROS related results are qualitatively similar and will be provided upon request from the author.

CONCLUSION

Ontario Bill 198 or CSOX of 2003 is a reactionary Act to the Sarbanes-Oxley Act of 2002 of the United States. This Act covered a broad array of corporate regulations covering accounting standards, corporate governance, and financial disclosures. As Canada was known for lighter civil and rarely any criminal penalties for corporate wrongdoings, this Act is a complete turnaround from that. In this study we analyze Canadian successful tender offers between 1996 and 2009 where the target and acquirers are both Canadian and TSX listed. Our results show that CSOX has contributed incrementally in the area of

corporate acquisitions. The event study results show that both target and acquiring firm returns around tender announcements have improved in the post-CSOX period. The higher premium paid to target firms show that acquiring firms have more confidence that there is less information leakage and therefore, the target stock price around announcement date represents its fair market value. On the other hand, higher returns for acquirer shareholders around announcements show that investors are showing more confidence on the acquisition activities undertaken by the management

The stronger presence of synergy in the post-CSOX sample indicates that management is undertaking better acquisitions. The post-acquisition long term operating underperformance has declined in the post Act period. This improvement in performance is most likely the result of better alignment of management and shareholders' interests through implementation of stricter penalties and good governance.

Finally, before CSOX was enacted, both the academic and practitioner worlds were divided on the question of its necessity. Even though we agree that there is still room for improvements, the results imply that CSOX was the right move in the right direction substantiated by incremental improvement found in our results.

As far as we know, this is the first paper that has extensively analyzed the impact of Ontario Bill-198 on corporate acquisition activity in Canada. Contrary to the beliefs of many, we find that this regulation has an incremental contribution in bringing fairness to corporate deals like in our case tender offers. We would expect that our work will motivate the academic researchers to further investigate this Act and its implications on different facets of corporate trades and deals.

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APPENDIX

Sarbanes-Oxley Act (SOX) of 2002

The Sarbanes-Oxley Act (SOX) of 2002 is by far the most comprehensive legislation enacted in the United States in the post-war period. From better governance to more transparency in corporate disclosure to timelier reporting of trading activity, SOX addresses a wide range of issues. For e.g., insider transactions are now required to be reported within two trading days compared to as many as forty calendar days prior to the Act. The Act included provisions to promote independent auditing, increase executive responsibility of financial reporting, and improved internal control system. It was passed on July 30, 2002 and went into effect on August 29, 2002.

Canadian SOX aka CSOX aka Budget Measure Act of 2003

In order to create level playing field for the cross-listed Canadian firms and to boost investor confidence in the north of the border, Canada soon followed suit of their southern neighbors. Ontario Bill 198 (CSOX) was passed by the Ontario legislature. The full title of this Act is “An Act to implement Budget measures and other initiatives of the Government”, aka “Budget Measure Act”. The Act received Royal Assent on December 9, 2002 and went into effect on April 7, 2003. This is one of the most comprehensive securities regulations passed in Canada. Though the Act had its weaknesses, it covered a broad array of areas like accounting standards, transparency, corporate governance etc.