Canadian Business Trust Conversions

Ying Lu

A Thesis

In

The John Molson School of Business

Presented in Partial Fulfillment of the Requirements

For the Degree of Master of Science in Administration at

Concordia University

Montreal, Quebec, Canada

November 2006

Your file Votre référence
ISBN: 978-0-494-28981-5
Our file Notre référence
ISBN: 978-0-494-28981-5

Abstract

Canadian Business Trust Conversions

Ying Lu

This thesis first examines the short-term market- and risk-adjusted abnormal returns and their determinants around the announcement and effective dates for a sample of 37 business trust conversions from the period from January 1998 until September 2006. While positive and significant abnormal returns are associated with both event dates, the abnormal returns associated with the effective conversion dates are much smaller in magnitude and are not robust. The only empirically supported explanation for the market impact of trust conversion announcements is the tax savings associated with conversion to an income trust.

The longer-term market-and risk-adjusted returns are then examined around the trust conversion announcements. Based on an examination of the Jensen alpha estimates for each of the three years before and after the trust conversion announcements, the average trust conversion exhibits positive abnormal returns in all six years but the abnormal returns are only significant in the year prior to the trust-conversion announcement and in the second year after the announcement.

Thus, the evidence supports the conjecture that the market deems trust conversions as value-enhancing events.

Acknowledgements

I would like to express my sincere gratitude and deep appreciation to my supervisor, Dr. Lawrence Kryzanowski, for his expert guidance, constant encouragement and indomitable patience. The thesis would not have been accomplished without his clear direction and insightful adjustments. His broad academic knowledge and precise attitude towards research impressed and influenced me tremendously.

Extensive support, thoughtful comments and prompt feedback, which were provided by Dr. Ian Rakita and Dr. Thomas Walker, my thesis committee members, are also acknowledged and appreciated.

I would also like to extend my gratitude to Ms. Yan Shen and Mr. Amr Addas. Their generous help in using statistical software and database applications greatly improved my efficiency.

I am also deeply indebted to my parents, Ms. QiLian Gong and Mr. YuanLong Lu. Their unconditional support and confidence in me were indispensable in the completion of my degree.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CANADIAN BUSINESS TRUST CONVERSIONS

1. INTRODUCTION

Income trusts, which are perceived by many investors as being an alternative asset class, were introduced in Canada in the mid 1980s for oil and gas investments. Over the last two decades, the aggregate market capitalization of income trusts has increased dramatically, especially after the year 2001 (see Figure 1). Income trusts can generally be classified into four categories: business trusts, real estate investment trusts (REITs), resource trusts and utility Trusts.

The rapid growth in Canadian income trusts is the result of company conversions from traditional limited liability companies to trust. An example of the latter is GMP Capital Corporation, Canada's second-largest independent brokerage firm, which announced on August 18, 2005 that it plans to convert into an income trust in November of the same year. On August 19, 2005, the price of a GMP share increased by $3.60 (12.6%) to a record high of $32.25 on the Toronto Stock Exchange (TSX) (National Post, 2005).

Income trusts are the subject of considerable scrutiny in the popular financial press. For instance, the financial sections of most business newspapers report the cash distributions of various trusts when firms announce their intentions to convert into income trusts structure. Income-trust investment and the benefits of an income-trust organizational structure over more conventional limited liability organizational structures are topics of many Internet articles, roundtables and conferences, and regulatory

publications.[1] Despite the rapid growth in the relative importance of income trusts and the considerable interest in income trusts among practitioners, only a few academic papers (e.g., Kryzanowski, Lazrak and Rakita, 2006; Aguerrevere, Pazzaglia and Ravi, 2005; Halpern, 2004; King, 2003) are found in academic or mixed academic/practitioner journals.

Thus, this thesis has three primary objectives. The first is to examine the market impact of the conversion of 37 publicly-traded traditional limited liability business firms into publicly-traded business trusts from the period of January 1998 to September 2006. This time period is much longer than the January 2001 through July 2004 period examined by Halpern that included 23 such conversions. The second objective is to examine the determinants of the market effect associated with business trust conversion announcements. The third objective is to examine market- and risk-adjusted performance over the long term of the sample of 37 business trusts against benchmarks commonly used in measuring firm or fund performance.

This thesis makes three major contributions to the literature. The first major contribution is the finding that the market impact for the announcement of publicly traded firm conversions to income trusts is positive and very significant, and appears to be anticipated by the market. The mean and median cumulative abnormal returns (CARs) are a significant 8.14% and 3.87%, respectively, for a two-day announcement window [0, +1].

---

[1] Some examples include the National Policy draft 41-201, "*Income Trusts and Other Indirect Offering*", which was published for comment by the Canadian Securities Administrators (CSA) in fall 2003, the Ontario Government's *Trust Beneficiaries' Liability Act 2003*, and the Alberta government's discussion paper titled "*Income Trusts: Governance and Legal Status*", which was published in July 2004.

The second contribution is the finding that the CARs are positively related to factors that proxy to the tax-saving motivation for conversions to income trusts. The estimated coefficients of the variables 'tax-rate' and 'tax paid per share/price per share' are positive and negative, respectively, and both are highly significant in all regression runs.

The third major contribution is the finding that the market- and risk-adjusted abnormal returns for the converted trusts over longer time periods rise sharply during the years straddling the income trust announcements (namely, years [-2, -1] and [+1, +2]). In contrast, the average market sensitivity or beta of the trusts decreases significantly in the years after trust conversions.

The remainder of this thesis is organized as follows. In the next section, the advantages advanced for income trusts are discussed. In the third section, the relevant literature is reviewed. In the fourth section, the sample and data collection are described. In the fifth section, the market reactions to the announcements of conversions to organizational trust structures are examined. In the sixth section, the determinants of the market effect associated with business trust conversion announcements are assessed. In the seventh section, the market- and risk-adjusted performance of business trusts in each of the three years before and after trust conversion are studied. In the eighth and final section, some concluding comments are offered.

2. ADVANTAGES OF THE INCOME TRUST ORGANIZATIONAL STRUCTURE

Income trusts have at least three dominant advantages.[2] The first is tax efficiency. The conversion of GMP that was referred to earlier is an example of a change in corporate organizational structure in order to pursue tax saving benefits. Income trusts can effectively eliminate the corporate tax burden faced by unit-holders because trusts can delay tax payments. Conservative empirical estimates of the aggregate tax savings associated with the trust structure range between $500 and $700 million annually (Mintz and Lalit, 2004).

The second advantage of the trust structure is its monthly (or quarterly) distributions of cash flows to unit-holders, which supposedly deals with the agency problems associated with free cash flows. Trust yields are usually higher than those of bonds or other fixed-income investments, which is not surprising since trusts are equities and not fixed-income securities. In Canadian financial markets, Guaranteed Investment Certificates (GICs), on average, produce yields of 2.5% to 4.5%, while income trusts generally provide investors with yields between 7.6% and 9% that are often quite predictable (Mintz and Lalit, 2004). Due to their longer durations, trust investments are more [less] attractive than fixed-income securities when interest rates fall [rise].[3] Thus, income trusts played an increasingly important role on the TSX market during the 2002–4 period.

---

[2] Other advantages allegedly associated with income trusts are a reduction of financial distress costs, the improvement of the efficiency of markets, and the facilitation of venture capital exits by making IPOs more attractive (Halpern, 2004).

[3] The primary driving force is the higher duration associated with equity as opposed to most fixed-income investments due to the infinite life assumption for equities.

Furthermore, companies that use the income trust structure usually are mature, exhibit stable cash flows, a low level of income elasticity, and a low need for new investments (Mintz and Lalit, 2004). This controls the behavior of mature and profitable revenue-generating firms that face the free cash flow or FCF problem where they invest cash flows beyond a level that is needed for maintenance capital expenditures into marginal projects that are either value neutral or value destroying.

The third and final advantage of the trust structure is that income trusts, especially business trusts, provide a diversification benefit if they are included in investment portfolios. Halpern (2004) finds that the correlations of returns on income trusts with both interest rates and the return on the overall stock market index are low. Table 1, which is drawn from Halpern (2004), presents the standard deviations and correlations of the monthly rates of returns for various trust categories, bonds and the overall equity market over the period 1996-2004. Among the three income trust categories, business trusts have the lowest correlation (0.41) with the TSX index, and the lowest standard deviation (13.9%) among the various equity asset classes. This makes business trusts a potentially interesting investment vehicle for risk diversification.

3. LITERATURE REVIEW

On January 26, 2005, Standard and Poor's (S&P) announced its decision to add income trusts to the existing S&P/TSX Composite Index, the leading indicator of Canadian market performance. On March 17, 2006, income trusts were fully integrated into the S&P/TSX Composite Index.

King (2003) provides a broad view of the background, structure, growth and valuation of income trusts in the Canadian financial market. Mintz and Lalit (2004) report that the tax loss to governments from income trusts are in the $400 to $600 million range for year 2004, and suggest that the government develop neutral tax policies among different forms of financing in order to improve the efficiency of Canadian capital markets. Halpern (2004) rules out five main benefits of income trusts based on an analysis of trust structures, and identifies various potential issues associated with income trust investments, such as potential tax losses, inappropriate usage of the trust structure and corporate governance problems. For the 23 business trusts in his sample, Halpern finds that the average CAR is 8.88% over the 20 pre-event days, -3.98% over 31 post-event days, and 12.78% on the event date. All of these CAAR are significant at the 5% level. Aguerrevere et al. (2005) investigate the driving factors behind the value increase for income trust announcements, and suggest that the valuation benefits of a conversion arise from: (1) the opportunity to signal strong future prospects to the market; and (2) the tax savings generated by this structure that lower the cost of the signal. Kryzanowski et al. (2006) report that liquidity and trading costs are an important performance drag for investing in income trusts, and that trusts as equities exhibit more bond–like than market risk sensitivities.

4. SAMPLE AND DATA COLLECTION

The sample of business trusts begins with the 169 business trusts identified on the website of Investcom, which are grouped into the following eight categories: consumer discretionary, consumer staples, financials, healthcare, industrials, materials,

telecommunication services, and utilities.[4] Based on a comparison of this list with the 154 business trusts listed on the Toronto Stock Exchange (TSX) on June 30, 2006,[5] another 23 trusts are added to the sample to make a final sample of 192 business trusts.

Conversions from limited liability to organizational trust structures are identified using the Canadian Financial Market Research Center (CFMRC) database, Bloomberg, and business trust filings available from SEDAR. This results in a sample of 37 conversions of publicly traded limited-liability firms to publicly traded organizational trust structures.

Some descriptions for this final sample of trust conversions are provided in Table 2 and are depicted in Figures 2, 3 and 4. The announcement, approval, and effective dates for the 37 conversions of publicly traded limited liability firms to their income trust counterparts are listed in Table 2. The numbers of conversions to business trusts annually over the period 1998-2006 are depicted in Figure 2. Year 2002 and 2005 have the largest number of trust conversions (13 and 12, respectively). The proportional representations of converted trusts in the 8 business sectors are depicted in Figure 3. The proportions in descending order in the three largest business sectors are Industry (38%), Utility (29%) and Consumer staples (18%). These three categories together account for almost 85% of the 37 converted trusts. The proportional ditrubution of trusts and converted trusts in the 8 business sectors is depicted in Figure 4. The healthcare, consumer staples, utilities, and industrials categories have the highest percentages of conversions to trusts (specifically, 50%, 30%, 26% and 23%, respectively).

---

[4] This is available at: http://www.investcom.com/incometrust/businesstrust.htm.
[5] This is available at:
ww.tsx.com/en/marketActivity/tse/marketInformation/incomeTrusts/operatingBusinessTrusts.html.

Stock prices and returns are extracted from CFMRC up until the end of 2005, and stock prices and distributions are extracted from DataStream and Bloomberg for the subsequent nine months (January through September 2006). For each of the 37 trust conversions in the final sample, the return data are extracted for the 90 days before and after on the event date, and are adjusted for stock splits and dividends. Accounting data for the sample of trust conversions are retrieved from Compustat as well as annual reports and proxy statements filed with SEDAR.

5. MARKET REACTION TO TRUST CONVERSIONS

5.1 Hypotheses

The first null hypothesis (H_0^1) that is tested is as follows:

H_0^1: No market- and risk-adjusted abnormal returns (ARs) are associated with the announcements of converting limited-liability firms into publicly-traded income trusts.

Our expectation is that these conversion announcements will have a significantly positive impact on the firm's share price.

The second null hypothesis (H_0^2) that is tested is as follows:

H_0^2: No market- and risk-adjusted abnormal returns are associated with the effective dates of converting limited-liability firms into publicly-traded income trusts.

Our expectation is that in an efficient capital market the ARs on and around the effective conversion dates will not be significantly different from zero.

5.2 Methodology

The market- and risk-adjusted abnormal returns (ARs) associated with the trust conversion announcement (the effective conversion) dates are estimated using a market model that allows for a change in beta on and after the conversion announcement (effective) dates.[6] Specifically:

$$R_{it} = \alpha_i + \beta_{1i} R_{mt} + \beta_{2i} D_1 R_{mt} + \sum_{j=m}^{n} \gamma_{ij} D_{2j} + \varepsilon_{it} \quad (1)$$

where R_{it} is the return on a [share] unit of [the predecessor to] trust i on day t;

R_{mt} is the return for the S&P/TSX composite index on day t;

α_i is the intercept for [the predecessor to] trust i;

β_{1i} is the estimated beta for the predecessor to trust i prior to the conversion announcement or effective date;

β_{2i} is the change in the estimated beta for the predecessor to trust i or on trust i on and after the conversion announcement or effective date;

D_1 is a dummy variable which is equal to one for the conversion announcement or effective conversion date and the respective period thereafter, and is equal to 0 otherwise;

D_{2j} are the event dummies which equal one for day j in the event window and zero otherwise, where m and n are the starting and ending day of the event window;

---

[6] According to Karafiath (1988), this dummy variable approach is equivalent and more convenient to use than the traditional two-step approach of Fama, Fisher, Jensen and Roll (1969).

γ_{ij} is the abnormal return for day j in the event window for a share or unit of trust i; and

ε_{it} is the estimated error term for a [share] unit of [the predecessor to] trust i on day t, which is assumed to be normally distributed with mean zero and constant variance.

The event dates are first the conversion announcement dates and then the effective conversion dates for the business trusts based on information obtained from the web homepage of each converted trust, and from its regulatory filings available from SEDAR.[7] The statistical significance of the mean and median abnormal returns for single- and multi-day periods are tested using both parametric t- and nonparametric Wilcoxon signed rank tests, respectively. Significance at the 0.10 and 0.01 levels are referred to as being marginally and highly significant hereafter.

5.3 Empirical Results

5.3.1 Abnormal returns around the conversion announcement dates

The mean and median abnormal returns (ARs) based on the market model (1) are summarized in Table 3, and the cumulative average abnormal returns (CAARs) from the tenth day before to the tenth day after the conversion announcement dates are depicted in Figure 5. The daily mean and median abnormal returns of 4.78% and 0.84%, respectively, for day [0] and 11.50% and 2.66%, respectively, for day [+1] are not only statistically significant but also indicate that the cross-sectional distributions of the ARs for these two days are right skewed. Not surprisingly, the mean daily CAR for multi-day announcement dates of [-1, +1] and [0, +1] of 5.51% and 8.14% are highly significant as are their median

[7] The dates are also cross-checked using Bloomberg and Lexis-Nexis.

counterparts of 2.37% and 3.87%. Some evidence that the market overreacts to trust conversion announcements also exists. Specifically, both the mean and median CAR of -0.64% and -0.39% are significant over the post-event window [+2, +10]. [8]

The mean and median beta estimates for the pre-conversion announcement periods and their changes on the announcement dates are summarized in Table 4. The mean and median estimated betas (β_{1i}) of 0.33 and 0.22, respectively, for the pre-conversion announcement period are highly significant but below one. However, the changes in the mean and median estimated betas (β_{2i}) of -0.25 and -0.15, respectively, on the announcement dates are not significant at conventional levels.

5.3.2 Abnormal returns around the effective conversion dates

The ARs based on the market model (1) are reported in Table 5, and the cumulative average abnormal returns (CAARs) from the tenth day before to the tenth day after the conversion dates are depicted in Figure 6. The mean AR of 12.40% for day [+1] and of 4.31% and 6.19% for the multi-day periods [-1, 1] and [0, 1], respectively, are significant but not robust since their corresponding medians are not significant. Thus, significant abnormal returns occur on the conversion effective date for the average (mean) but not typical (median) business trust conversion where the significance of the former is due to positive AR outliers.

The mean and median beta estimates for the period prior to the effective conversion dates and their changes on the effective conversion dates are reported in Table 6. The mean and median estimated betas (β_{1i}) of 0.38 and 0.23, respectively, for the pre-conversion

[8] Only days +6 and +9 have significant (negative) mean and median ARs in the post-announcement period.

period are highly significant. The changes in the mean and median estimated betas (β_{2i}) of -0.26 and -0.11, respectively, on the effective conversion dates are not significant at conventional levels.

5.4 Test of Robustness

Since Kryzanowski, Lazrak and Rakita (2006) find that income trusts as equities exhibit more bond- than stock-like stock market risk sensitivities, the market- and risk-adjusted abnormal returns associated with the trust conversion announcements are re-estimated using a two-factor market model that allows for changes in the factor betas on and after the conversion announcement dates. Specifically:

$$R_{it} = \alpha_i + \beta_{1i}R_{mt} + \beta_{2i}D_1R_{mt} + \beta_{3i}R_{bt} + \beta_{4i}D_1R_{bt} + \sum_{j=m}^{n}\gamma_{ij}D_{2j} + \varepsilon_{it} \qquad (2)$$

where R_{bt} is the return on the total return Scotia McLeod long government bond index on day t;

β_{1i} is the estimated equity market beta for a share of the predecessor firm to trust i for the period prior to the conversion announcement date;

β_{2i} is the change in the estimated equity market beta for a share or unit of trust i or its predecessor firm on and after the conversion announcement date;

β_{3i} is the estimated bond market beta for a share of the predecessor firm to trust i for the period prior to the conversion announcement date;

β_{4i} is the change in the estimated bond market beta for a share or unit of trust i or its predecessor firm on and after the conversion announcement date; and

all other terms are as defined earlier.

Based on the AR results reported in Table 7 and depicted in Figure 7 based on the market model (2), the results reported in the previous section are robust. The mean and median daily ARs of 4.76% and 0.43%, respectively, for day [0] and of 11.25% and 1.80%, respectively, for day [+1] are statistically significant. Similarly, the mean daily CAR for the event windows [-1, +1] and [0, +1] are 5.43% and 8.00% and are highly significant as are their median counterparts of 2.42% and 3.80%. Based on the weakly significant mean and median daily CAR for the post-announcement period [+2, +10] of -0.57% and -0.28%, respectively, the evidence is now less strong that the market overreacts to trust conversion announcements.[9]

The mean and median beta estimates for the pre-conversion announcement periods and their changes on the announcement dates are reported in Table 8. The mean and median estimated market betas (β_{1i}) of 0.35 and 0.22, respectively, for the pre-conversion announcement periods are highly significant. However, the mean and median estimated interest-rate betas (β_{3i}) are not significant at conventional levels, as are the changes in the mean and median betas for the market (β_{2i}) and interest rates (β_{4i}) from the conversion announcement dates.

6. DETERMINANTS OF THE MARKET EFFECT ASSOCIATED WITH BUSINESS TRUST CONVERSION ANNOUNCEMENTS

6.1 Methodology

Since any abnormal (or unexpected) market performance around trust conversion announcements may be related to a number of factors, various cross-sectional

[9] Only days +6 and +9 have significant (negative) mean and median ARs in the post-announcement period.

multivariate regressions are run in this section of the thesis. The most general form of the model used is given by:

$$CAR_i = \alpha + \alpha D_1 + \beta_1 TaxRate_i + \beta_2 TaxPS_i / Price_i + \beta_3 FCFPS_i / Price_i + \beta_4 \mu_{ROA,i} / \sigma^R_{ROA,i} + \beta_5 LogFirmSize_i + \beta_6 P/B_i + \beta_7 E/P_i + \beta_8 D/EQ_i + \beta_9 CAR_{PRE,i} + \beta_{10} \Delta M\&DOwn_i + \beta_{11} M\&DOwn_i + \varsigma_i \quad (3)$$

In model (3), CAR_i is the cumulative abnormal return for the two-day event window [0, +1] for trust conversion announcement i.

D_1 is a dummy variable that is included to capture any change in the average CAR from the earlier to the latter part of the studied time period that is not explained by the independent variables included in (3) or variants thereof. Thus, D_1 is equal to one for a conversion announcement date in 2003, 2004 or 2005, and is equal to zero otherwise.

$TaxRate_i$ is the mean rate of income tax paid during the three-year period immediately preceding the trust conversion announcement for predecessor firm *i*, which is based on taxes paid divided by EBT for each fiscal year-end for predecessor firm *i*.[10] Since the reduction of tax expenses is supposedly one of the major rationales for trust conversion (Aguerrevere et al., 2005; Halpern 2004), the expected sign for this variable is positive.

TaxPS/P is the mean ratio of income taxes paid per share divided by the price per share during the three-year period immediately preceding the trust conversion announcement for predecessor firm *i*. Since TaxPS is a cash outflow without its negative sign and the reduction in relative taxes paid is a primary reason for trust conversions

[10] For all but one of the accounting-based independent variables, a shorter period of one or two years is used if the full three years of data are not available. The exception is $\mu_{ROA,i} / \sigma^R_{ROA,i}$, which required a minimum of two years of data.

(Aguerrevere et al., 2005; Mintz and Lalit, 2004), the expected sign for this variable is negative.

FCFPS/P is the mean ratio of free cash flow per share divided by the price per share during the three-year period immediately preceding the trust conversion announcement for predecessor firm *i*, which is based on the ratio of free cash flows (i.e., net operating cash flows minus capital expenditures) per share to price per share for each fiscal year-end for predecessor firm *i*. Since the reduction of any agency problems associated with free cash flows is supposedly one of the major rationales for trust conversion (Aguerrevere et al., 2005; Halpern, 2004), the expected sign for this variable is positive.

$\mu_{ROA,i}/\sigma^{R}_{ROA,i}$ is the ROA reward per unit of ROA variability for trust conversion *i* over the three-year period immediately preceding the trust conversion for predecessor firm *i*. $\mu_{ROA,i}$ is the mean return on total assets for trust conversion *i* over the three-year period immediately preceding the trust conversion announcement for predecessor firm *i*, based on EBITDA divided by total assets for each fiscal year-end for predecessor firm *i*. σ^{R}_{ROA} is the variability in ROA for predecessor firm *i*, which is calculated using a variant of the range-based standard deviation measure of Parkinson (1980).[11] This measure is given by $\hat{\sigma}^{R}_{ROA_i} = \sqrt{\frac{1}{4\ln 2}(h-l)^2}$, where *h* and *l* are the largest and smallest values of ROA for the prior three-year period immediately preceding the trust conversion for predecessor firm *i*. Since firms with higher ROA rewards per unit of ROA risk are expected to be

[11] The difference between the daily high and low of the log price, or the price range, is used in the literature to measure volatility (e.g., Alizadeh, Brandt & Diebold, 2002; Yang and Zhang, 2000).

more attractive for the less risk tolerant clientele for business trusts, the expected sign for this variable is positive.

$LogFirmSize_i$ is the log of the size of trust conversion *i* based on the market value of equity of predecessor firm *i* at the end of the fiscal year before trust conversion announcement *i*. Since smaller firms are likely to benefit more from conversion to a trust structure (Aguerrevere et al., 2005; Halpern, 2004), the expected sign for this variable is negative.

P/B_i is the price-to-book ratio for trust conversion i, as measured by the market value of equity divided by the book value of equity at the end of the fiscal year before trust conversion announcement *i*. The price-to-book ratio is a commonly used proxy for investment or growth opportunities. Since firms with higher growth opportunities are likely to benefit less from conversion to a trust structure due to the high payouts associated with business trusts (Aguerrevere et al., 2005), the expected sign for this variable is negative.

E/P_i is the earnings yield for trust conversion *i*, as measured by the earnings per share (EPS) at the end of the fiscal year before trust conversion announcement *i* divided by the stock price one month before trust conversion announcement *i*. Since firms with higher earnings yields are likely to benefit more from conversion to a trust structure as a result of the favorable tax status of a trust (Halpern, 2004), the expected sign for this variable is positive. The E/P ratio is used instead of the P/E ratio to avoid the tendency of the P/E ratio to go towards infinity with very small EPS values and to be un-interpretable for negative EPS values.

D/EQ_i is the leverage ratio for trust conversion *i*, as measured by total liabilities divided by total equity at the end of the fiscal year before trust conversion announcement *i*. Since firms with higher leverage ratios are likely to benefit less from conversion to a trust structure because they probably have less debt capacity that can be used to achieve tax-free status (Aguerrevere et al., 2005; Halpern and Norli, 2003), the expected sign for this variable is negative.

$CAR_{PRE,i}$ is the pre-conversion price run-up based on event window [-10, -1]. This variable measures the prior anticipation or information leakage of the conversion announcement. Since announcements that are less of a surprise are expected to have lower market reactions when they occur, the expected sign for this variable is negative.

$\Delta M\&DOwn_i$ is the expected percentage change in the share ownership of managers and directors (M&Ds) upon the conversion of predecessor firm *i* into trust *i*. This variable is measured as the percentage change of M&D common share ownership to total common shares outstanding from the pre-conversion limited liability company to the converted business trust. Since firms with higher linkages in benefits between management and shareholders are expected to have better corporate governance structures (Halpern, 2004), the expected sign of this variable is negative.

$M\&DOwn_i$ is the share ownership of managers and directors (M&Ds) of the predecessor firm that is being converted into trust i. This variable is measured as the percentage of M&D common share ownership to total common shares outstanding for the pre-conversion limited companies. Given the potential agency problems associated with high M&D ownership, the expected sign of this variable is negative.

6.2 Empirical Results

Descriptive statistics for the dependent and explanatory variables are reported in Table 9. The correlation matrix for all pairs of dependent and explanatory variables is reported in Table 10. The only correlation above 0.5, which is between E/P and $\mu_{ROA,i}/\sigma^{R}_{ROA,i}$, is accounted for in some of the regression runs reported below.

The results of multivariate cross-sectional regressions based on model (3) for the CAR for the two-day event window of [0, +1] against six combinations of the explanatory variables are presented in Table 11. Based on these regression results, the regressions are statistically significant at the 0.05 level or better (and with R^2 values exceeding 57%) for the four regressions that exclude the $\mu_{ROA,i}/\sigma^{R}_{ROA,i}$ variable. The intercept and the dummy change intercept to capture the impact of more recent conversions are both not significant in any of the regressions. As expected, *TaxRate* is positively related with the dependent variable CAR [0, 1] in the regressions that include P/B and/or $M\&DOwn_i$ but exclude $\mu_{ROA,i}/\sigma^{R}_{ROA,i}$, and at the 0.05 level when these three variables are not included in the regressions. This implies that trusts with higher income tax rates tend to have higher abnormal returns after a trust conversion announcement, which provides support for the conjecture that tax expense reduction is one of the major rationales for trust conversion. This is further confirmed by the significance of *TaxPS/P* at the 0.01 level with its expected negative sign for all regressions excluding $\mu_{ROA,i}/\sigma^{R}_{ROA,i}$.

The only other variable that is significant for regressions excluding $\mu_{ROA,i}/\sigma^{R}_{ROA,i}$ is *E/P*, which has it expected sign but is only significant at the 0.10 level when *M&Down* is also excluded from the regression model. This provides weak evidence for the conjecture

that firms with higher earnings yields are likely to benefit more from conversion to trust structures since they can benefit more from the favorable tax status of a trust.

Thus, the general finding in this section of the thesis is that, although many hypotheses or conjectures are advanced to explain why business firms convert into business trusts, the evidence only supports the tax-saving motive for such conversions. While it is possible that the proxies used to capture the other motives are misspecified, the high explanatory power associated with the tax-saving proxies suggests that these potentially excluded motives are at best of secondary importance.

7. LONGER-TERM MARKET- AND RISK-ADJUSTED PERFORMANCES OF TRUST CONVERSIONS

7.1 Hypothesis

The null hypothesis (H_0^3) that is tested in this section of the thesis is as follows:

H_0^3: The market- and risk-adjusted abnormal returns for longer time periods around the trust conversion announcements are not significantly different from zero.

Our expectation is that the null hypothesis will not be rejected in an allocationally efficient market.

7.2 Methodology

The performance of the converted trusts for each of the three years before and after their conversion announcements is estimated using the following model:

$$\begin{aligned} R_{i\tau} - R_{f\tau} = {} & \alpha_{-3}D_{-3} + \beta_{-3}D_{-3}(R_{m\tau} - R_{f\tau}) + \alpha_{-2}D_{-2} + \beta_{-2}D_{-2}(R_{m\tau} - R_{f\tau}) + \alpha_{-1}D_{-1} \\ & + \beta_{-1}D_{-1}(R_{m\tau} - R_{f\tau}) + \alpha_1 D_1 + \beta_1 D_1(R_{m\tau} - R_{f\tau}) + \alpha_2 D_2 + \beta_2 D_2(R_{m\tau} - R_{f\tau}) \\ & + \alpha_3 D_3 + \beta_3 D_3(R_{m\tau} - R_{f\tau}) + \zeta_{i\tau} \end{aligned} \quad (4)$$

where $R_{i\tau}$ is the rate of return for trust i or portfolio i for month τ relative to the trust conversion announcement month;

$R_{f\tau}$ is the risk-free rate, as proxied by the return on the total return Scotia McLeod long government bond index for month τ relative to the trust conversion announcement month;

$R_{m\tau}$ is the rate of return for the market, as proxied by the total return for the S&P/TSX composite index, for month τ relative to the trust conversion announcement month;

D_{-3}, D_{-2} and D_{-1} are dummy variables equal to one for the third, second and first year prior to the trust conversion announcement month and equal to 0 otherwise; and

D_1, D_2 and D_3 are dummy variables equal to one for the first, second and third year after the trust conversion announcement month and equal to zero otherwise.

7.3 Empirical Results

7.3.1 Market- and risk-adjusted abnormal returns for the full sample

A version of model (4) is run for each trust conversion i using whatever years are available for that trust conversion. The results are presented in Table 12 and depicted in Figures 8, 9 and 10 for beta, alpha and the ratio of alpha to beta, respectively. The mean market beta increases progressively from year -3 (0.5731) through year -1 (0.6934) and then decreases progressively through year +3 (0.1441). The median beta exhibits a somewhat similar but less pronounced pattern in that it increases in a less monotonic fashion from 0.4927 for year -3 to 0.6869 for year +1, and then decreases to 0.1649 for

year +3. Unlike the earlier years, both the mean and median betas are not significantly different from zero for years +2 and +3.

All of the mean and median alphas are positive. However, they are only significant for years -1 (0.0483 and 0.0373, respectively) and +2 (0.0270 and 0.0287, respectively). This illustrates the relative strength of the business trust market during the studied period. The mean and median ratios of alpha to beta rise sharply from years -2 to -1 and from +1 to +2.

As a test of robustness, model (4) is re-estimated using only the trusts with complete data for the three years before and after the conversion announcements. These results are presented in Table 13 and depicted in Figures 11, 12 and 13 for beta, alpha and the ratio of alpha to beta, respectively. The time-series behavior of the cross-sectional mean and median betas (Figure 11) is somewhat similar to the larger sample analyzed above. The mean and median alphas are still all positive and remain significant for years -1 and +2, but are now also significant for year +1 (see Table 13 and Figure 12). Unlike the findings for the fuller sample, the mean and median ratios of alphas to betas depicted in Figure 13 exhibit a smoother trend, which turns upward after year -2.

7.3.2 Market- and risk-adjusted abnormal returns for the three major trust categories

The cross-sectional mean and median alphas, betas and alpha-to-beta ratios for the three major business categories of converted trusts are examined next for each of the three years before and after the conversion announcements. These results are presented in Table 14 and depicted in Figures 14, 15 and 16. While the cross-sectional mean and median alphas for the three major business categories exhibit a similar time-series pattern to that of the full sample of converted trusts, their cross-sectional mean and median betas

(especially for the consumer staples category) exhibit substantial differences. Specifically, the cross-sectional mean [median] beta for consumer staples is negative at -0.3334 [-1.1859] and -0.2429 [-0.1583] for years +2 and +3, respectively. The time-series behavior of the cross-sectional alpha-to-beta ratio for the industries category is consistent with the previous finding as reported earlier, except for its increasing but flatter trend after year +1. In contrast, the time-series behavior of the cross-sectional mean and median alpha-to-beta ratio for the utilities category is somewhat inconsistent with the previous findings. These ratios rise smoothly from year -3 until year +2, and decrease thereafter.

7.3.3 Robustness tests for the size-weighted and market-value-weighted samples

Since the above analysis does not account for the relative size of each trust, the relative performance of the total sample is re-examined by weighting each converted trust by two measures of relative size. The first is the relative total assets of each trust conversion *i*, which is given by $w_{TA,i,-1} = TA_{i,-1} \Big/ \sum_{i=1}^{N} TA_{i,-1}$, where $TA_{i,-1}$ measures the total assets for firm i for the year prior to its trust conversion announcement, and N is the sample size. The second measure of relative size is calculated in the same manner except that it is based on the market-value of converted firm *i* at the month-end one year prior to its trust conversion announcement. The p-values for the cross-sections of the size-weighted alphas are computed based on the Eckbo and Norli (2005) methodology which involves cross-sectional tests of the alpha and beta estimates for each year relative to the trust conversion announcements.

The results for the two types of relative weightings of returns for the sample of trusts (un)differentiated by whether or not they traded for the full three years before and after

the trust conversion announcements are presented in Table 15. While the mean betas for both types of relative weightings of returns for the differentiated samples exhibit similar time-series patterns (see Figure 11), they differ somewhat from their unweighted counterparts (see Figure 8). Specifically, the unweighted mean beta decreases instead of increasing from year -2 to year -1, and increases instead of decreasing from year -1 to year +1.

The only difference between the mean alphas for the two weighted and differentiated samples and their unweighted counterparts occurs in year +2, where the mean alpha of the later is significant in year +2. As is the case for the unweighted counterparts, the mean alphas for both weighted and undifferentiated samples are significant in both year -1 (0.0364) and year +2 (0.0140).

8. CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This paper documents a statistically significant market- and risk-adjusted abnormal return (AR) on the announcements of conversions to business trusts in Canadian capital markets using an approach that reflects any changes in the betas on the announcement dates. The mean two-day AR of 8.14% is lower than the 12.78% AR reported in Halpern (2004) based on a smaller sample of 23 business trust conversions.

Explanations commonly used in the financial press and academic literature for the ARs associated with conversion announcements were also examined. Although most of those proxies for these possible explanations lack power to explain the ARs, proxies for potential income tax savings associated with trust conversions are significant and with their expected signs. This finding is consistent with the conjectures in Aguerrevere et al. (2005) and Halpern (2004).

Results from tests of the longer-term performance around the trust conversion announcements generally find significant and positive alphas in the year prior to and in the second year after the trust conversions. We also find that the beta tends to decrease after the conversion announcements.

On October 31, 2006, the Canadian government announced plans to begin taxing income trusts. After this announcement, some business trusts are contemplating conversions back to their original limited liability organizational structures. Due to the tax-saving motive for most of the conversions to trusts that was supported empirically herein, it is not surprising that there were significant negative announcement-day effects on the prices of income trusts on October 31, 2006, and that the price discovery process extended beyond the day of this material government announcement. In subsequent years, we expect few (if any) business trust conversions and that the aggregate capitalization value of the Canadian trust sector will shrink as trusts abandon the trust structure for the simpler limited liability organizational structure. An examination of both the short- and long-term impacts of this change in Canadian tax policy for income trusts is, however, left for future study.

REFERENCES

Aguerrevere, Felipe, Federica Pazzaglia, and Rahul Ravi, 2005. Income trusts and the great conversion. *Canadian Investment Review* 18: 4, 8-12.

Alizadeh Sassan, Michael W. Brandt, and Francis X. Diebold, 2002. Range-based estimation of stochastic volatility models. *Journal of Finance* 57: 3, 1047-1091.

Corrado, Charles J. 1989. A nonparametric test for abnormal security-price performance in event studies. *Journal of Financial Economics* 23, 385-395.

Eckbo, E.B. and Ø. Norli, 2005. Liquidity risk, leverage and long-run IPO returns. *Journal of Corporate Finance* 11, 1-35.

Fama F. Eugene, Lawrence Fisher, Michael G. Jensen, and Richard Roll, 1969. The adjustment of stock prices to new information, *International Economic Review* 10:1, 1-21.

Halpern, Paul and Oyvind Norli, 2003. Income trusts: Old wine in new bottles? *Canadian Investment Review* 16: 3, S1.

Halpern, Paul, 2004. Is the trust in trusts misplaced? A study of business income trusts and their role in Canadian capital markets. Working paper, *Capital Markets Institute, University of Toronto.* November.

Karafiath, Imre, 1988. Using dummy variables in the event study methodology. *The Financial Review* 23: 3, 351-357.

King, Michael R., 2003. Income trusts – understanding the issues. Working paper, *Bank of Canada.*

Kramer, Lisa A. 2001. Alternative methods for robust analysis in event study applications. *Advances in Investment Analysis and Portfolio Management* 8, 109-132.

Kryzanowski, Lawrence, Skander Lazrak and Ian Rakita, 2006. The true costs of income trusts. *Canadian Investment Review* 19: 1, 10-15.

MacKinlay, A. Craig, 1997. Event studies in economics and finance. *Journal of Economic Literature* 35: 1, 13-39.

Mintz, Jack, and Aggarwal Lalit, 2004. Income trusts and shareholder taxation: Getting it right. *Canadian Tax Journal* 52: 3, 792-815.

Parkinson, Michael, 1980. The extreme value method for estimating the variance of the rate of return. *Journal of Business* 53: 1, 61-65.

Yang, Dennis and Zhang, Qiang, 2000. Drift-independence volatility estimation based on high, low, open and close prices. *Journal of Business* 73: 3, 477-491.

Table 1. Business trust standard deviations of returns and correlations with other investments

This table presents the standard deviations of returns for business trusts and their correlations with other investments. The table is extracted from table 5 of Halpern (2004).

Asset Class	Correlations					Standard Deviation
	Trust Composite	Business Trusts	Oil and Gas	REIT	Bonds	
Composite						13.3%
Business Trusts	0.92					13.9%
Oil and Gas	0.85	0.63				20.6%
REIT	0.81	0.76	0.52			15.6%
Bond	0.44	0.48	0.32	0.42		
TSX Index	0.54	0.41	0.50	0.51	0.15	18.0%

Table 2. Announcement, approval and effective dates for the 37 business trust conversions

This table presents the conversion announcement, approval and effective dates for the 37 limited liability firms that converted to business trusts over the 1998-2006 period.

Fund Name	Ticker No.	Announcement Date	Approval Date	Effective Date
Rainmaker Income Fund	RNK.UN	2002.5.27	2002.5.27	2002.6.3
Hartco Income Fund	HCI.UN	2005.5.19	2005.7.28	2005.8.29
Arctic Glacier Income Fund	AG.UN	2002.3.11	2002.3.11	2002.3.20
Benvest New Look Income Fund	BCI.UN	2005.3.22	2005.4.22	2005.5.2
Big Rock Brewery Income Trust	BR.UN	2002.9.20	2002.9.20	2003.1.13
Dominion Citrus	DOM.UN	2005.5.26	2005.11.14	2006.1.6
Parkland Income Fund	PKI.UN	2002.4.29	2002.4.29	2002.7.5
Premium Brands Income Fund	PBI.UN	2005.3.16	2005.7.15	2005.7.25
Rogers Sugar Income Fund	RSI.UN	1998.10.8	1998.10.8	1998.10.8
Carfinco Income Fund	CFN.UN	2002.5.31	2002.10.2	2002.12.13
GMP Capital Trust	GMP.UN	2005.8.18	2005.11.18	2005.12.1
CML Healthcare Income Fund	CLC.UN	2003.12.15	2004.2.19	2004.2.25
Medisys Health Group Income Fund	MHG.UN	2004.11.4	2004.12.20	2004.12.31
Badger Income Fund	BAD.UN	2004.2.27	2004.3.25	2004.4.5
CanWel Building Materials Income Fund	CWX.UN	2005.4.4	2005.4.4	2005.5.18
Foremost Industries Income Fund	FMO.UN	2001.11.9	2001.11.9	2001.12.31
Taiga Building Products Ltd.	TBL.UN	2005.3.30	2005.8.10	2005.9.1
Vicwest Income Fund	VIC.UN	2005.3.11	2005.6.21	2005.7.4
Wajax Income Fund	WJX.UN	2005.3.23	2005.3.23	2005.6.13
Boyd Group Income Fund	BYD.UN	2002.11.22	2003.2.28	2003.2.28
Eveready Income Fund	EIS.UN	2004.10.4	2004.10.4	2004.10.4
IAT Air Cargo Facilities Income Fund	ACF.UN	1998.6.12	1998.6.12	1998.6.12
Versacold Income Fund	ICE.UN	2002.1.30	2002.1.30	2002.2.12
Contrans Income Fund	CSS.UN	2002.5.21	2002.5.21	2002.7.23
Halterm Income Fund	HAL.UN	1998.5.14	1998.5.14	1998.5.14
Mullen Group Income Fund	MTL.UN	2005.6.2	2005.6.30	2005.7.5
Strongco Income Fund	SQP.UN	2005.3.15	2005.4.28	2005.5.6
AltaGas Income Trust	ALA.UN	2004.2.18	2004.2.18	2004.5.4
TransAlta Power L.P.	TPW.UN	1999.4.1	1999.4.1	1999.4.1
Avenir Diversified Income Trust	AVF.UN	2002.9.25	2002.9.25	2003.2.3
Cathedral Energy Services Income Trust	CET.UN	2002.6.21	2002.6.21	2002.8.2
CCS Income Trust	CCR.UN	2002.3.15	2002.3.15	2002.5.27
Peak Energy Services Trust	PES.UN	2004.4.28	2004.4.28	2004.5.3
Phoenix Technology Income Fund	PHX.UN	2004.4.22	2004.4.22	2004.7.7
Precision Drilling Trust	PD.UN	2005.10.31	2005.10.31	2005.11.7
Trinidad Energy Services Income Trust	TDG.UN	2002.8.15	2002.9.17	2002.9.24
Wellco Energy Services Trust	WLL.UN	2002.5.28	2002.5.28	2002.8.8

Table 3. Abnormal returns for various single- and multi-day periods within the event window around the trust conversion announcement dates based on the single-factor market model

This table reports the mean and median daily abnormal returns (ARs) for the total sample of trust conversions over the 1998-2006 period for the event window [-10, +10] centered on the conversion announcement dates based on the single-factor market model (1). It also reports the mean and median AARs for various multi-day periods based on the [-10, 10] event window. The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Event Day	Daily Mean AR	t-value	p-value	Daily Median AR	Wilcoxon test	p-value
-10	0.0018	0.25	0.801	0.0000	-16.5	0.807
-9	0.0060	1.12	0.269	0.0022	64.5	0.337
-8	-0.0104	-1.55	0.130	-0.0015	-105.5	0.113
-7	0.0044	0.71	0.485	-0.0019	-5.5	0.935
-6	0.0071	1.28	0.209	-0.0032	11.5	0.865
-5	-0.0004	-0.03	0.975	-0.0016	-67.5	0.315
-4	-0.0044	-1.16	0.253	-0.0014	-61.5	0.361
-3	-0.0014	-0.25	0.805	-0.0031	-15.5	0.819
-2	0.0010	0.17	0.868	0.0070	50.5	0.454
-1	0.0024	0.41	0.685	-0.0003	0.5	0.994
0	0.0478***	3.14	0.003	0.0084**	148.5	0.023
1	0.1150**	2.55	0.015	0.0266***	220.5	0.000
2	-0.0055	-0.79	0.4323	-0.0069	-53.5	0.427
3	0.0001	0.02	0.988	-0.0040	-42.5	0.529
4	-0.0151	-1.17	-0.248	-0.0002	-2.5	0.971
5	-0.0034	-0.74	0.4626	-0.0039	-20.5	0.762
6	-0.0083**	-2.24	0.031	-0.0022**	-141.5	0.031
7	-0.0013	-0.26	0.797	-0.0024	-24.5	0.717
8	-0.0055	-1.48	0.147	-0.0055	-106.5	0.109
9	-0.0147***	-2.88	0.007	-0.0050**	-164.5	0.011
10	-0.0041	-0.74	0.461	-0.0030	-735.5	0.273
[-10,+10]	0.0043	1.67	0.104	0.0024**	133.5	0.042
[-5,+5]	0.0124**	2.52	0.017	0.0058**	182.5	0.043
[-1,+1]	0.0551***	3.66	0.001	0.0237***	263.5	<0.000
[0,+1]	0.0814***	3.63	0.001	0.0387***	269.5	<0.000
[-10,-2]	0.0004	0.25	0.801	-0.0013	0.5	0.994
[-5,-2]	-0.0013	-0.33	0.742	0.0011	24.5	0.717
[+2,+5]	-0.0060	-1.41	0.166	-0.0020	-51.5	0.445
[+2,+10]	-0.0064**	-2.17	0.037	-0.0039**	-139.5	0.033

Table 4. Mean and median market betas around the trust conversion announcements based on the single-factor market model

This table reports the mean and median market betas (β_{1i}) prior to the conversion announcements and the changes in the betas (β_{2i}) on the conversion announcement dates for the total sample of trust conversions over the 1998-2006 period. The betas are for the single-factor market model (1). The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Coefficient	Mean	T-test	P-value	Median	Wilcoxon test	P-value
β_{1i}	0.3269**	2.50	0.017	0.2201**	145.5	0.026
β_{2i}	-0.2532	-1.12	0.271	-0.1532	-68.5	0.308

Table 5. Abnormal returns for various single- and multi-day periods within the event window around the trust effective conversion dates based on the single-factor market model

This table reports the mean and median daily abnormal returns (ARs) for the total sample of trust conversions over the 1998-2006 period for the event window [-10, +10] centered on the conversion effective dates based on the single-factor market model (1). It also reports the mean and median CARs for various multi-day periods within the [-10, 10] event window. The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Event Day	Daily Mean AR	t-value	p-value	Daily Median AR	Wilcoxon test	p-value
-10	0.00174	0.24	0.812	-0.0003	-38	0.602
-9	0.0041	0.87	0.389	0.0002	38	0.602
-8	0.0039	0.71	0.481	-0.0013	-23	0.753
-7	0.0043	0.77	0.447	-0.0002	53	0.467
-6	0.0116	1.55	0.129	-0.0005	78	0.282
-5	0.0063	0.96	0.345	0.0003	49	0.501
-4	0.0098	1.39	0.172	0.0007	84	0.246
-3	0.0007	0.11	0.911	-0.0008	-23	0.753
-2	-0.0060	-1.37	0.178	-0.0035	-97	0.179
-1	0.0057	0.74	0.463	-0.0028	-33	0.651
0	-0.0003	-0.05	0.963	0.0004	-17	0.816
1	0.1240**	2.35	0.024	0.0012	90	0.213
2	0.0110	1.64	0.110	-0.0010	53	0.467
3	0.0009	0.19	0.849	-0.0053	-85	0.240
4	-0.0029	-0.49	0.630	-0.0023	-75	0.301
5	-0.0280	-1.23	0.228	-0.0021	-98	0.175
6	-0.0057*	-1.82	0.077	-0.0008	-116	0.106
7	0.0025	0.86	0.393	0.0007	17	0.816
8	0.0021	0.79	0.436	-0.0020	-24	0.742
9	-0.0255	-1.07	0.291	-0.0000	-27	0.712
10	-0.0269	-1.26	0.217	-0.0037	-100	0.166
[-10,+10]	0.0044	1.30	0.202	-0.0005	-22	0.763
[-5,+5]	0.0110**	2.04	0.049	-0.0011	28	0.701
[-1,+1]	0.0431**	2.24	0.031	-0.0017	47	0.519
[0,+1]	0.0619**	2.23	0.032	-0.0017	4	0.956
[-10,-2]	0.0040	1.23	0.226	0.0008	69	0.342
[-5,-2]	0.0027	0.68	0.500	-0.0006	-12	0.870
[+2,+5]	-0.0047	-1.08	0.288	-0.0014	-60	0.410
[+2,+10]	-0.0081	-1.22	0.229	-0.0017	-78	0.282

Table 6. Mean and median betas around the trust effective conversion dates based on a single-factor market model

This table reports the mean and median betas (β_{1i}) prior to the effective conversion dates and the changes in the betas (β_{2i}) on the effective conversion dates for the total sample of trust conversions over the 1998-2006 period. The betas are for the single-factor market model (1). The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Coefficient	Mean	T-test	P-value	Median	Wilcoxon test	P-value
β_{1i}	0.3777***	3.21	0.003	0.2257***	252	0.000
β_{2i}	-0.2636	-1.18	0.247	-0.1134	-91	0.208

Table 7. Abnormal returns for various single- and multi-day periods within the event window around the trust conversion announcement dates based on the two-factor market model

This table reports the mean and median daily abnormal returns (ARs) for the total sample of trust conversions over the 1998-2006 period for the event window [-10, +10] centered on the conversion announcement dates based on the two-factor market model (2). It also reports the mean and median CARs for various multi-day periods within the [-10, 10] event window. The two factors are the market factor as proxied for the return on the S&P/TSX composite index, and the interest rate factor as proxied for the total return on the Scotia McLeod long government bond index. The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Event Day	Daily Mean AR	t-value	p-value	Daily Median AR	Wilcoxon test	p-value
-10	0.0032	0.47	0.641	-0.0009	-14.5	0.830
-9	0.0065	1.16	0.253	0.0021	69.5	0.301
-8	-0.0099	-1.48	0.149	-0.0020	-90.5	0.176
-7	0.0044	0.70	0.491	-0.0027	-5.5	0.935
-6	0.0076	1.37	0.180	-0.0003	20.5	0.762
-5	-0.0012	-0.11	0.915	-0.0019	-71.5	0.287
-4	-0.0050	-1.30	0.203	-0.0009	-73.5	0.273
-3	-0.0017	-0.29	0.773	-0.0026	-21.5	0.751
-2	0.0006	0.10	0.922	0.0017	70.0	0.335
-1	0.0029	0.50	0.620	0.0008	8.5	0.900
0	0.0476***	3.12	0.004	0.0043**	138.5	0.035
1	0.1125**	2.47	0.018	0.0258***	207.5	0.001
2	-0.0057	-0.76	0.453	-0.0077	-49.5	0.463
3	0.0016	0.32	0.753	-0.0032	-35.5	0.599
4	-0.0144	-1.11	0.273	0.0002	23.5	0.728
5	-0.0017	-0.40	0.695	-0.0044	1.5	0.982
6	-0.0063**	-2.14	0.040	-0.0028**	-158.5	0.015
7	0.0005	0.11	0.913	-0.0026	-39.5	0.559
8	-0.0048	-1.33	0.190	-0.0058	-94.5	0.157
9	-0.0158***	-2.90	0.006	-0.0054**	-161.5	0.013
10	-0.0044	-0.73	0.469	-0.0023	-60.5	0.369
[-10,+10]	0.0055*	1.73	0.093	0.0025**	146.5	0.025
[-5,+5]	0.0123**	2.45	0.019	0.0051***	191.5	0.003
[-1,+1]	0.0543***	3.56	0.001	0.0242***	260.5	<0.000
[0,+1]	0.0800***	3.53	0.001	0.0380***	259.5	<0.000
[-10,-2]	0.0005	0.28	0.781	0.0000	0.5	0.994
[-5,-2]	-0.0018	-0.47	0.644	0.0015	11.5	0.865
[+2,+5]	-0.0050	-1.23	0.226	-0.0028	-38.5	0.569
[+2,+10]	-0.0057*	-1.99	0.054	-0.0028*	-116.5	0.079

Table 8. Mean and median market and interest rate betas around the trust conversion announcements based on a two-factor market model

This table reports the mean and median market and interest rate betas (β_{1i} and β_{3i} , respectively) prior to the conversion announcements and the changes in the betas (β_{2i} and β_{4i} , respectively) on the conversion announcement dates for the total sample of trust conversions over the 1998-2006 period. The betas are for the two-factor market model (2). The two factors are the market factor as proxied for the return on the S&P/TSX composite index, and the interest rate factor as proxied for the total return on the Scotia McLeod long government bond index. The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Coefficient	Mean	T-test	P-value	Median	Wilcoxon test	P-value
β_{1i}	0.3493***	2.67	0.011	0.2167	157.5	0.015
β_{2i}	-0.1451	-0.09	0.376	-0.0348	-41.5	0.539
β_{3i}	0.0926	0.54	0.591	0.0704	35.5	0.599
β_{4i}	0.414	0.78	0.819	-0.0254	15.5	0.818

Table 9. Descriptive statistics for the variables included in the determinants of the market reaction to trust conversion announcements

This table reports summary descriptive statistics for the dependent and explanatory variables for the cross-sectional regressions for the determinants of the market reaction to trust conversion announcements for 36 converted business trusts during the 1998-2005 period. The explanatory variables are as defined in section 6 of the text of the paper. Since annual reports for RSI.U are not available for more than one year, no standard deviation for its ROA could be calculated. Thus, the sample size for $\mu_{ROA}/\sigma^{R}_{ROA}$ is 35.

Variable	Mean	Median	Standard Deviation	Minimum	Maximum	Sample Size
CAR[0,1]	0.0835	0.0391	0.1379	-0.0578	0.6558	36
TaxRate	0.3259	0.3513	0.1248	0.0169	0.6675	36
TaxPS/P	0.0039	0.0263	0.1568	-0.6890	0.2390	36
FCFPS/P	0.2382	0.1916	0.2424	-0.0973	0.9778	36
$\mu_{ROA}/\sigma^{R}_{ROA}$	1.3767	1.8869	10.5701	-54.6844	20.2575	35
LogFirmSize	1.7841	1.7641	0.6388	0.8180	3.6611	36
P/B	1.4131	1.2565	0.9124	0.0174	3.5800	36
E/P	0.1019	0.0712	0.1796	-0.2500	0.8523	36
D/EQ	1.2487	1.0197	0.9317	0.0240	3.3286	36
CAR_{PRE}	0.0066	0.0028	0.0926	-0.2184	0.3198	36
$\Delta M\&DOwn$	0.2764	0.0947	0.6974	-0.6858	2.9072	36
$M\&DOwn_i$	0.1927	0.1130	0.2056	0.0000	0.7650	36

Table 10. Correlations between the variables included in the regressions to identify the determinants of the market reaction to trust conversion announcements

This table reports the correlations for the various pairings of dependent and explanatory variables used in the regressions to identify the determinants of the market reaction to trust conversion announcements for the 36 converted business trusts during the 1998-2005 period using model (3). The trust RSI.U is not included due to missing data.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) CAR[0, 1]	1.00	-0.07	0.36	-0.44	0.10	0.01	0.14	-0.08	0.08	-0.20	0.06	-0.15	-0.05
(2) αD_I	-0.07	1.00	-0.07	0.09	-0.06	0.17	0.47	0.49	-0.16	0.13	0.20	-0.05	0.04
(3) TaxRate	0.36	-0.07	1.00	0.07	-0.02	-0.10	-0.10	-0.16	0.03	-0.17	0.08	-0.10	0.18
(4)*TaxPS/P*	-0.44	0.09	0.07	1.00	-0.03	0.03	0.01	0.03	-0.06	0.14	0.03	-0.10	0.46
(5)*FCFPS/P*	0.10	-0.06	-0.02	-0.03	1.00	-0.11	-0.11	-0.35	0.13	-0.09	-0.15	-0.02	0.03
(6) μ_{ROA}/σ^R_{ROA}	0.01	0.17	-0.10	0.03	-0.11	1.00	0.29	0.26	-0.74	0.12	0.28	-0.04	0.22
(7)LogFirmSize	0.14	0.47	-0.10	0.01	-0.11	0.29	1.00	0.45	-0.17	-0.05	0.23	0.01	-0.26
(8) P/B	-0.08	0.49	-0.16	0.03	-0.35	0.26	0.45	1.00	-0.13	0.22	-0.02	-0.18	-0.07
(9) E/P	0.08	-0.16	0.03	-0.06	0.13	-0.74	-0.17	-0.13	1.00	-0.27	-0.35	-0.14	0.00
(10) D/EQ	-0.20	0.13	-0.17	0.14	-0.09	0.12	-0.05	0.22	-0.27	1.00	-0.06	0.32	0.15
(11) CARpre	0.06	0.20	0.08	0.03	-0.15	0.28	0.23	-0.02	-0.35	-0.06	1.00	0.22	-0.09
(12)ΔM&DOwn	-0.15	-0.05	-0.10	-0.10	-0.02	-0.04	0.01	-0.18	-0.14	0.32	0.22	1.00	-0.27
(13) M&DOwn	-0.05	0.04	0.18	0.46	0.03	0.22	-0.26	-0.07	0.00	0.15	-0.09	-0.27	1.00

Table 11. Regression results for the determinants of announcement period abnormal returns

This table reports the regression estimates and statistics for various combinations of the independent variables in model (3) for the 36 conversions to business income trusts during the 1998-2005 period. The explanatory variables are defined in section 6 of the text. The t-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively. The critical t-values at the 0.10 level are 1.717, 1.714, 1.711, 1.708, 1.706 and 1.699 for degree of freedom of 22, 23, 24, 25, 26 and 29, respectively. The corresponding critical values at the 0.05 level are respectively 2.074, 2.069, 2.064, 2.060, 2.056 and 2.045, and at the 0.01 level are respectively 2.819, 2.807, 2.797, 2.787, 2.779 and 2.756.

Variable/ Statistic	**Expected Sign**	**Regression Run**					
		(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Intercept		-0.1252 (-1.44)	-0.1225 (-1.45)	-0.1126 (-1.28)	-0.1215 (-1.44)	-0.0900 (-1.08)	-0.0865 (-1.22)
Intercept x D_1		-0.0271 (-0.69)	-0.0287 (-0.76)	-0.0264 (-0.68)	-0.0333 (-0.94)	-0.0277 (-0.77)	-0.0161 (-0.46)
TaxRate	+	0.3024** (2.17)	0.2967** (2.21)	0.2531* (1.90)	0.2589* (1.98)	0.2787** (2.10)	0.2889** (2.24)
TaxPS/P	-	-0.5311*** (-3.02)	-0.5407*** (-3.22)	-0.6821*** (-4.90)	-0.6835*** (-4.99)	-0.6113*** (-4.72)	-0.6228*** (-5.10)
FCFPS/P	+	0.0390 (0.56)	0.0404 (0.59)	0.0219 (0.31)	0.0350 (0.55)	0.0360 (0.56)	0.0195 (0.31)
$\mu_{ROA}/\sigma^{R}_{ROA}$	+	-0.0001 (-0.05)	-0.0006 (-0.38)				
LogFirmSize	-	0.0543 (1.63)	0.0559* (1.75)	0.0531 (1.67)	0.0482 (1.62)	0.0348 (1.21)	0.0352 (1.26)
P/B	-	-0.0086 (-0.34)	-0.0074 (-0.31)	-0.0122 (-0.50)			
E/P	+	0.0516 (0.24)		0.1792 (1.57)	0.1826 (1.63)	0.2077* (1.85)	0.1887* (1.77)
D/EQ	-	0.0059 (0.28)	0.0042 (0.22)	0.0088 (0.42)	0.0059 (0.30)	0.0115 (0.59)	
CAR_{PRE}	-	0.1017 (0.51)	0.0952 (0.49)	0.2135 (1.13)	0.2316 (1.27)	0.2604 (1.41)	
ΔM&DOwn	-	-0.0237 (-0.88)	-0.0235 (-0.89)	-0.0240 (-0.88)	-0.0199 (-0.78)	-0.0304 (-1.23)	
M&DOwn	-	0.0898 (0.80)	0.1012 (1.01)	0.1213 (1.31)	0.1271 (1.40)		
Adjusted R^2		0.1828	0.2163	0.5756	0.5884	0.5730	0.5769
F-value		1.63	1.85*	5.32***	6.00***	6.22***	8.95***
df		22	23	24	25	26	29
N		35	35	36	36	36	36

Table 12. Mean and median alpha and beta coefficients for the total sample of trust conversions for each of the six years centered on the conversion announcements

This table reports the mean and median alpha and beta coefficients for each of the three years before and after the conversion announcements for the total sample of 36 trust conversions over the 1998-2005 period. This sample does not include TBL.U due to the absence of pre-conversion monthly returns. The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05 and 0.01 levels, respectively. The critical t-values at the 0.10 level are 1.706, 1.699, 1.691, 1.697 and 1.717 for degrees of freedom (df's) of 26, 29, 35, 32 and 22, respectively. The corresponding critical values at the 0.05 level are respectively 2.056, 2.045, 2.032, 2.042 and 2.074, and at the 0.01 level are respectively 2.779, 2.756, 2.727, 2.750 and 2.819.

Parameter	Mean	T-test	P-value	Median	Wilcoxon test	P-value	df	N
α_{-3}	0.0035	0.39	0.702	0.0052	18	0.674	26	27
β_{-3}	0.5731***	3.39	0.002	0.4927***	125	0.001	26	27
α_{-2}	0.0078	1.08	0.29	0.0021	35.5	0.475	29	30
β_{-2}	0.6396***	3.87	0.001	0.4596***	170.5	0	29	30
α_{-1}	0.0483***	5.54	<0.001	0.0373***	304	<0.001	35	36
β_{-1}	0.6934***	4.31	0	0.6577***	247	<0.001	35	36
α_{+1}	0.0101	1.53	0.136	0.0085	95	0.138	35	36
β_{+1}	0.6570***	5.27	<0.001	0.6869***	264	<0.001	35	36
α_{+2}	0.0270***	5.23	<0.001	0.0287***	227.5	<0.001	32	33
β_{+2}	0.2783*	1.81	0.08	0.2440*	87.5	0.119	32	33
α_{+3}	0.0134	1.33	0.197	0.0110	57	0.083	22	23
β_{+3}	0.1441	1.63	0.118	0.1649	54	0.101	22	23

Table 13. Cross-sectional mean and median alpha and beta coefficients for the sample of trust conversions with complete data for each of the six years centered on the conversion announcements

This table reports the mean and median alpha and beta coefficients for each of the three years before and after the conversion announcements for the sample of 18 trust conversions with complete data for each of the six years centered on the conversion announcements. The mean and median values are tested using t- and Wilcoxon sign tests, respectively. *, ** and *** indicate statistical significance at the 0.10, 0.05 and 0.01 levels, respectively. The critical t-values for 17 degrees of freedom (df's) at the 0.10, 0.05 and 0.01 levels are 1.740, 2.110 and 2.898, respectively.

Parameter	Mean	T-test	P-value	Median	Wilcoxon test	P-value	df	N
α_{-3}	0.0070	0.55	0.590	0.0169	17.5	0.462	17	18
β_{-3}	0.4526**	2.65	0.017	0.3216**	47.5	0.038	17	18
α_{-2}	0.0022	0.23	0.820	-0.0030	-4.5	0.857	17	18
β_{-2}	0.5291***	3.54	0.003	0.4596***	64.5	0.003	17	18
α_{-1}	0.0532***	8.02	<0.001	0.0445***	85.5	<0.001	17	18
β_{-1}	0.9361***	5.69	<0.001	1.0420***	78.5	<0.001	17	18
α_{+1}	0.0167**	2.87	0.011	0.0126**	56.5	0.012	17	18
β_{+1}	0.3468**	2.21	0.041	0.3221**	50.5	0.026	17	18
α_{+2}	0.0273***	3.89	0.001	0.0241***	68.5	0.002	17	18
β_{+2}	0.4352**	2.62	0.018	0.3451**	50.5	0.026	17	18
α_{+3}	0.0101	0.80	0.436	0.0082	25.5	0.279	17	18
β_{+3}	0.1287	1.17	0.258	0.1215	57.5	0.212	17	18

Table 14. Cross-sectional mean and median alpha and beta coefficients for the trust conversions differentiated by major trust category for each of the six years centered on the conversion announcements

This table reports the cross-sectional mean and median alpha and beta coefficients for each of the three years before and after the conversion announcements for the three major categories of trusts conversions over the 1998-2005 period. The industries, utilities and consumer staples sectors consist of 13, 10 and 7 trust conversions, respectively, over the studied period. T-values and Wilcoxon test values are reported in the parentheses for tests of the mean and median coefficient estimates, respectively. P-values are reported in the brackets. N is the sample size. *, ** and *** indicate statistical significance at the 0.10, 0.05 and 0.01 levels, respectively. The critical t-values at the 0.10 level are 2.353, 2.015, 1.943, 1.895, 1.860, 1.833 and 1.782 for degrees of freedom of 3, 5, 6, 7, 8, 9 and 12, respectively. The corresponding critical values at the 0.05 level are respectively 3.182, 2.571, 2.447, 2.365, 2.306, 2.262 and 2.179, and at the 0.01 level are respectively 5.841, 4.032, 3.707, 3.499, 3.355, 3.250 and 3.055.

	Industries			Utilities			Consumer Staples		
Parameter	Mean	Median	N	Mean	Median	N	Mean	Median	N
α_{-3}	-0.0022 (-0.190) [0.857]	-0.0145 (-2.50) [0.820]	9	0.0086 (0.33) [0.753]	0.0118 (2.00) [0.844]	8	-0.0010 (-0.09) [0.934]	0.0015 (0.50) [1.000]	6
β_{-3}	0.8894** (2.77) [0.024]	0.7278 (19.50) [0.020]	9	0.7825** (2.65) [0.033]	0.9099 (14.00) [0.055]	8	0.4427 (1.86) [0.121]	0.3188 (7.50) [0.156]	6
α_{-2}	0.0070 (0.48) [0.645]	-0.0005 (0.50) [1.000]	9	0.0209 (1.61) [0.147]	0.0174 (11.50) [0.203]	9	-0.0250* (-2.27) [0.073]	-0.0236 (-7.50) [0.156]	6
β_{-2}	0.7736 (1.71) [0.126]	0.1685 (16.50) [0.055]	9	0.8787*** (3.60) [0.007]	1.0462 (19.50) [0.020]	9	0.3830 (1.62) [0.167]	0.3267 (6.50) [0.219]	6
α_{-1}	0.0748*** (3.83) [0.002]	0.0796 (42.50) [0.001]	13	0.0298*** (3.31) [0.009]	0.0238 (25.50) [0.006]	10	0.0345* (2.00) [0.092]	0.0352 (9.00) [0.156]	7
β_{-1}	0.7226* (2.02) [0.066]	0.6714 (33.50) [0.017]	13	1.0021*** (6.44) [0.000]	1.0385 (27.50) [0.002]	10	0.3894 (1.60) [0.160]	0.4064 (8.00) [0.219]	7
α_{+1}	0.0178 (1.30) [0.218]	0.0127 (22.50) [0.127]	13	0.0190 (1.69) [0.126]	0.0074 (13.50) [0.193]	10	-0.0010 (-0.09) [0.929]	-0.0075 (-1.00) [0.938]	7
β_{+1}	0.6889** (2.68) [0.020]	0.6315 (32.50) [0.022]	13	0.5316** (2.29) [0.048]	0.6869 (19.20) [0.049]	10	0.6787** (2.99) [0.024]	0.4511 (14.00) [0.016]	7
α_{+2}	0.0224** (2.45) [0.030]	0.0287 (31.50) [0.027]	13	0.0285** (2.95) [0.018]	0.0278 (17.50) [0.039]	9	0.0274*** (3.71) [0.010]	0.0352 (13.00) [0.031]	7
β_{+2}	0.3573 (1.30) [0.219]	0.1187 (14.50) [0.340]	13	0.6082** (2.43) [0.041]	0.5760 (17.50) [0.039]	9	-0.3334 (-1.15) [0.294]	-1.1859 (-5.00) [0.469]	7
α_{+3}	0.0163 (0.79) [0.459]	0.0217 (7.00) [0.297]	7	0.0047 (0.29) [0.777]	0.015 (4.50) [0.652]	9	0.0017 (0.61) [0.583]	-0.0006 (-1.00) [0.875]	4
β_{+3}	0.2316 (1.78) [0.125]	0.1703 (10.00) [0.109]	9	0.1718 (1.07) [0.316]	0.3129 (11.50) [0.203]	9	-0.2429 (-1.99) [0.141]	-0.1583 (-5.00) [0.125]	4

Table 15. Cross-sectional mean alpha and beta coefficients for the size-weighted and market-value-weighted (un)differentiated sample of trust conversions around the conversion announcements

This table reports the cross-sectional mean alpha and beta coefficients for each of the three years before and after the conversion announcements for the total-asset-weighted and market-value-weighted samples of trust conversions. The sample is (un)differentiated by whether or not each trust has complete data for each of the six years centered on its conversion announcement. The total-asset-weights are calculated as $w_{TA,i,-1} = TA_{i,-1} \Big/ \sum_{i=1}^{N} TA_{i,-1}$, where $TA_{i,-1}$ is the total asset for trust conversion i for the year prior to its trust conversion announcement, and N is the sample size. The market-value-weights are calculated as $\omega_{MV,i,-1} = MV_{i,-1} \Big/ \sum_{i=1}^{N} MV_{i,-1}$, where MV_i is the market-value of converted trust i at the month-end one year prior to its trust conversion announcement. The sample which covers the 1998-2005 period, does not include TBL.U due to the absence of pre-conversion monthly returns for this trust. The p-values for the mean of the cross-section of size- or market-value-weighted returns are computed using $U \equiv \omega' r / (\sigma\sqrt{(\omega'\omega)})$, where ω is a vector of cross-sectional total-asset or market-value weights and r is the corresponding vector of cross-sectional returns. Assuming that r is distributed normally $N(\mu, \sigma^2)$ and that σ^2 can be consistently estimated using $\sum_{i=1}^{N} \omega_i (r_i - \bar{r})^2$, where $\bar{r} = \sum_{i=1}^{N} \omega_i r$, then U is distributed N(0,1). *, ** and *** indicate statistical significance at the 0.10, 0.05 and 0.01 levels, respectively. The underlying critical Z-values at the three levels are 1.65, 1.96 and 2.57.

	Undifferentiated						Differentiated					
	Total-asset-weights		Market-value-weights				Total-asset-weights		Market-value-weights			
Coef.	Mean	P-value	Mean	P-value	df	N	Mean	P-value	Mean	P-value	df	N
α_{-3}	-0.0071	-0.587	-0.0081	-0.633	26	27	0.0101	0.760	0.0098	0.777	17	18
β_{-3}	0.8480***	2.934	0.9874***	3.036	26	27	0.4372**	2.391	0.3837**	1.973	17	18
α_{-2}	0.0176	1.236	0.0162	1.420	29	30	0.0143	0.824	0.0206	1.376	17	18
β_{-2}	1.0305***	2.725	1.1750***	2.780	29	30	0.5977***	2.736	0.5703***	2.573	17	18
α_{-1}	0.0364***	3.208	0.0307*	1.885	35	36	0.0442***	3.809	0.0352***	3.184	17	18
β_{-1}	0.6986***	2.777	0.3501	0.831	35	36	0.8278***	2.758	0.2646	0.536	17	18
α_{+1}	0.0090	0.841	0.0054	0.362	35	36	0.0154**	2.181	0.0200***	2.853	17	18
β_{+1}	0.8629***	4.526	0.8009***	2.903	35	36	0.5277**	2.356	0.3750	1.509	17	18
α_{+2}	0.0140*	1.810	0.0045	0.461	32	33	0.0094	1.215	0.0056	0.781	17	18
β_{+2}	0.4472**	2.266	0.3453	1.442	32	33	0.6330***	2.785	0.6869***	2.865	17	18
α_{+3}	0.0146	1.541	0.0137	1.205	22	23	0.0106	0.881	0.0070	0.515	17	18
β_{+3}	0.1271	1.099	0.0862	0.670	22	23	0.0659	0.470	-0.0307	-0.229	17	18

Figure 1. Annual market capitalization of Canadian income trusts, 1994-2005

This figure plots the aggregate market capitalization of Canadian income trusts on an annual basis over the 1994-2005 period. The data source is Halpern (2004) for 1994-6, and CIBC thereafter. Market capitalization is measured in billions of Canadian dollars.

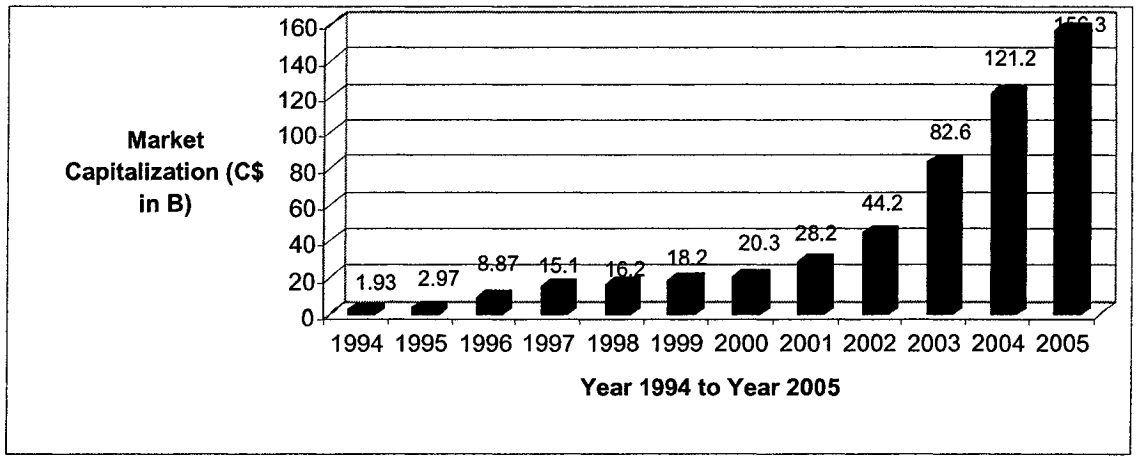

Figure 2. Number of business trust conversions, 1998-2006

This figure plots the number of converted business trusts annually based on their announcement dates (effective dates in parentheses) over the period 1998-2006. There are 37 converted trusts among the 192 trusts in the total sample.

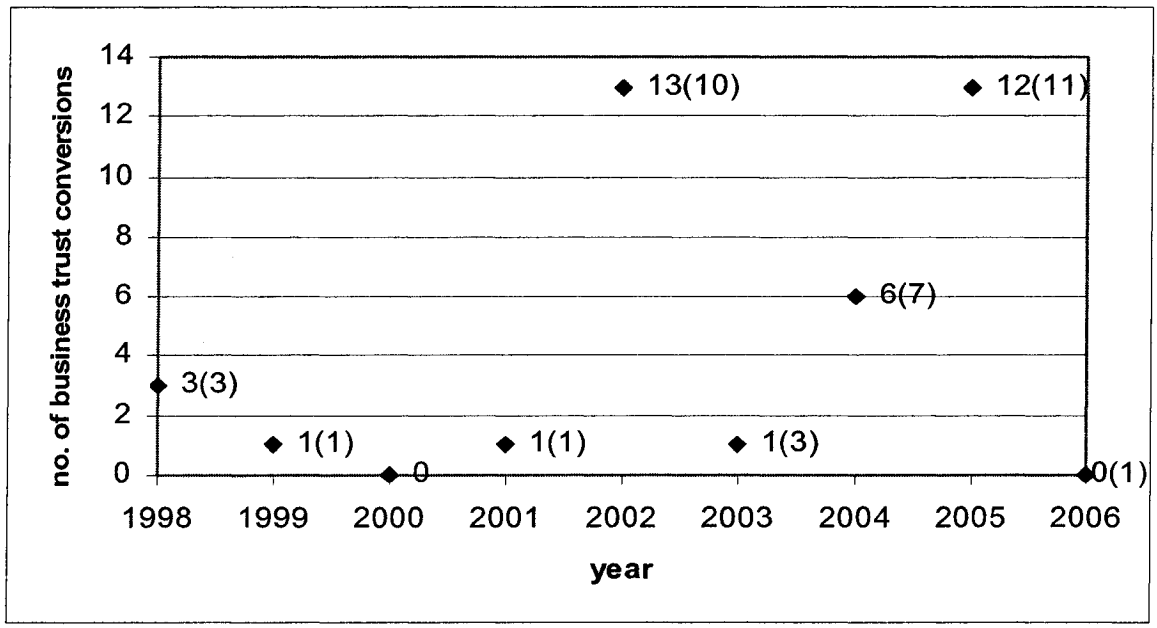

Figure 3. Distribution of the number of converted business trusts among the eight business categories

This pie chart illustrates the percentage allocation of the 37 converted business trusts to eight business categories.

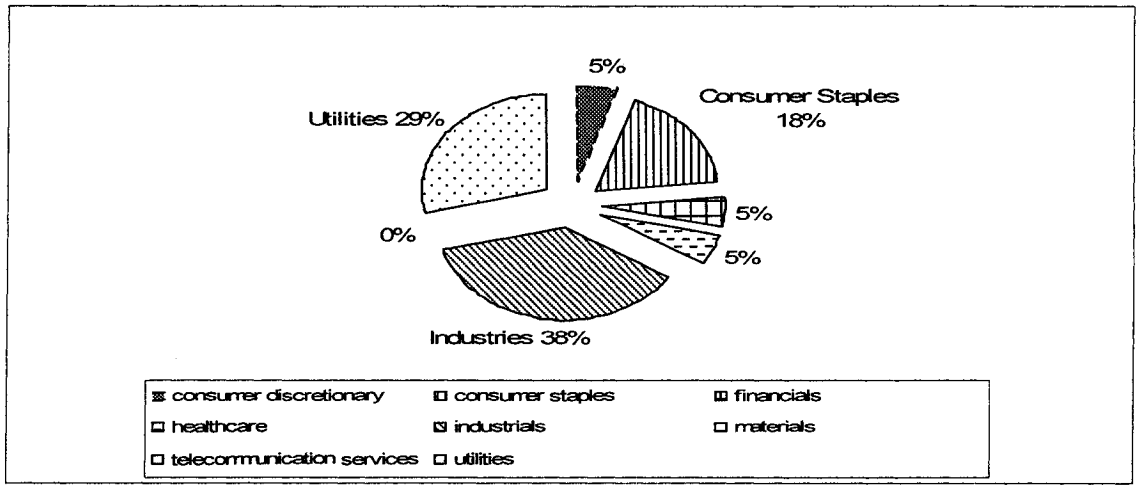

Figure 4. Distribution of the (non)converted business trusts among the eight business categories

This figure depicts the number of converted and non-converted business trusts in each of the eight business categories.

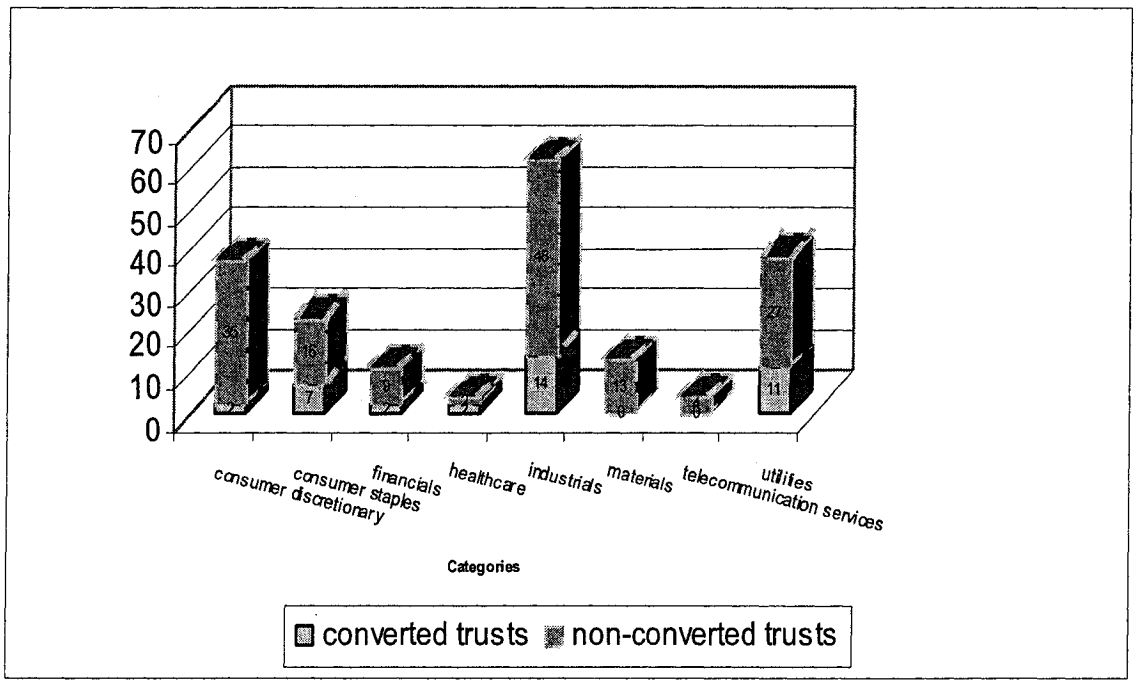

Figure 5. Cumulative average abnormal returns around the conversion announcement dates based on a single-factor market model

This figure plots the cumulative average abnormal returns (CAARs) for the total sample of converted trusts around their conversion announcement dates (i.e., for the event window [-10, +10] around the announcement dates). The ARs are based on the single-factor market model (1).

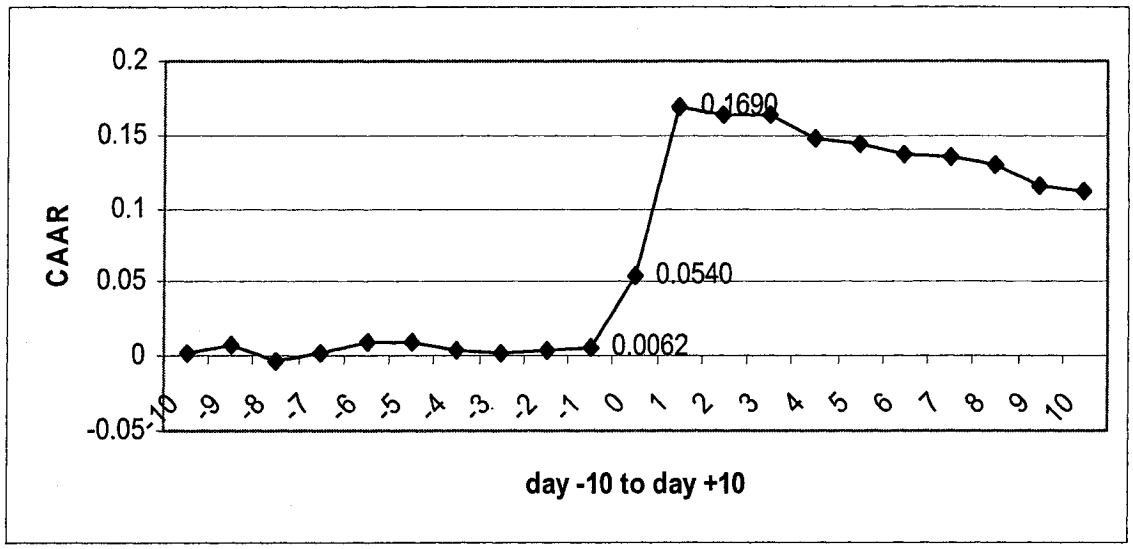

Figure 6. Cumulative average abnormal returns around the effective conversion dates based on a single-factor market model

This figure plots the cumulative average abnormal returns (CAARs) for the total sample of converted trusts around their effective conversion dates (i.e., for the event window [-10, +10] around the effective dates). The ARs are based on the single-factor market model (1).

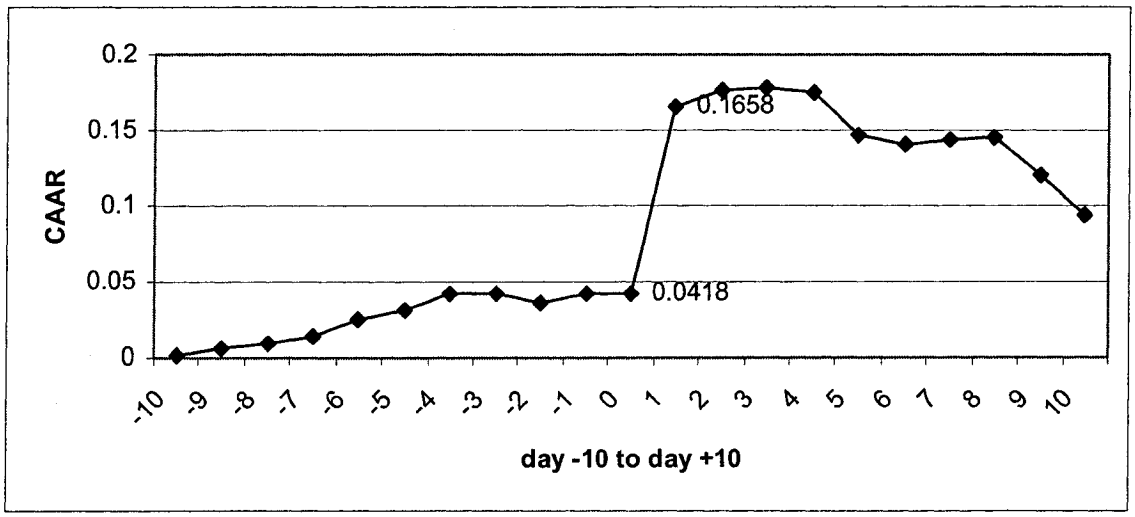

Figure 7. Cumulative average abnormal returns around the conversion announcement dates based on a two-factor market model

This figure plots the cumulative average abnormal returns (CAARs) for the total sample of converted trusts around their conversion announcement dates (i.e., for the event window [-10, +10] around the announcement dates). The ARs are based on the two-factor market model (2).

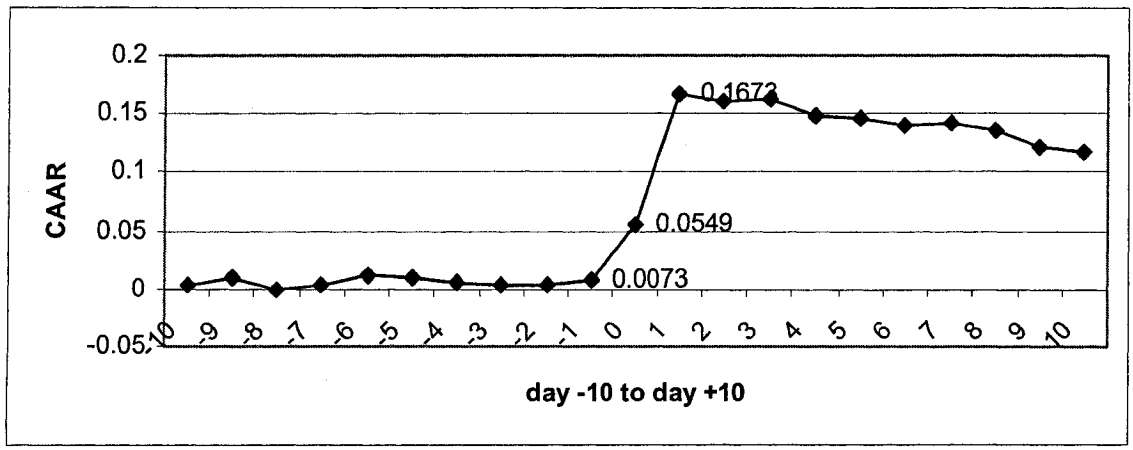

Figure 8. Annual cross-sectional mean and median betas around the conversion announcements for the full sample

This figure plots the cross-sectional mean and median betas for the total sample of trust conversions for each 12 month period for the six years centered on the trust conversion announcements.

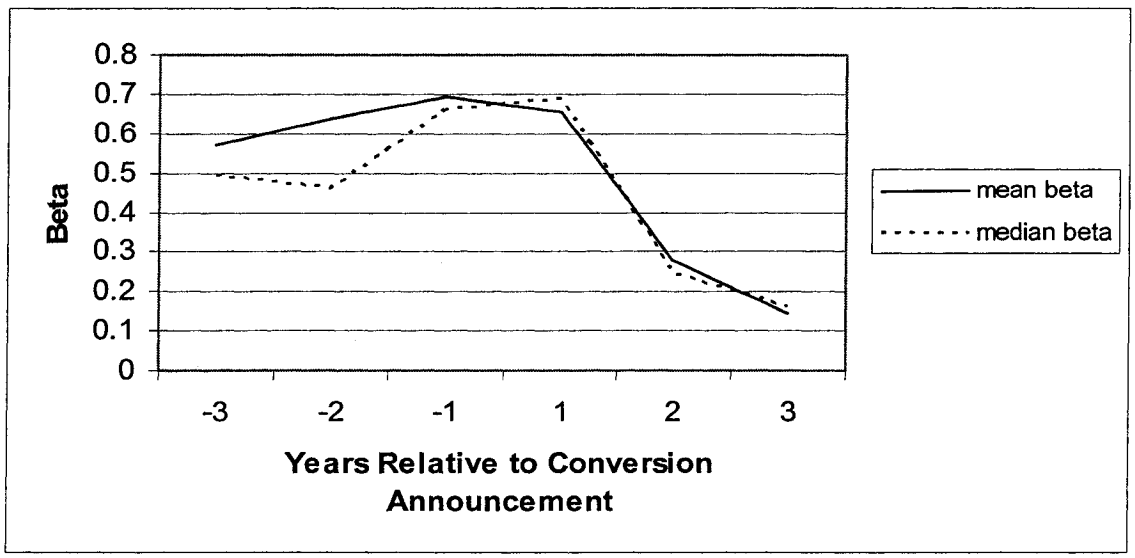

Figure 9. Annual cross-sectional mean and median alphas around the conversion announcements for the full sample

This figure plots the cross-sectional mean and median alphas for the total sample of trust conversions for each 12 month period for the six years centered on the trust conversion announcements.

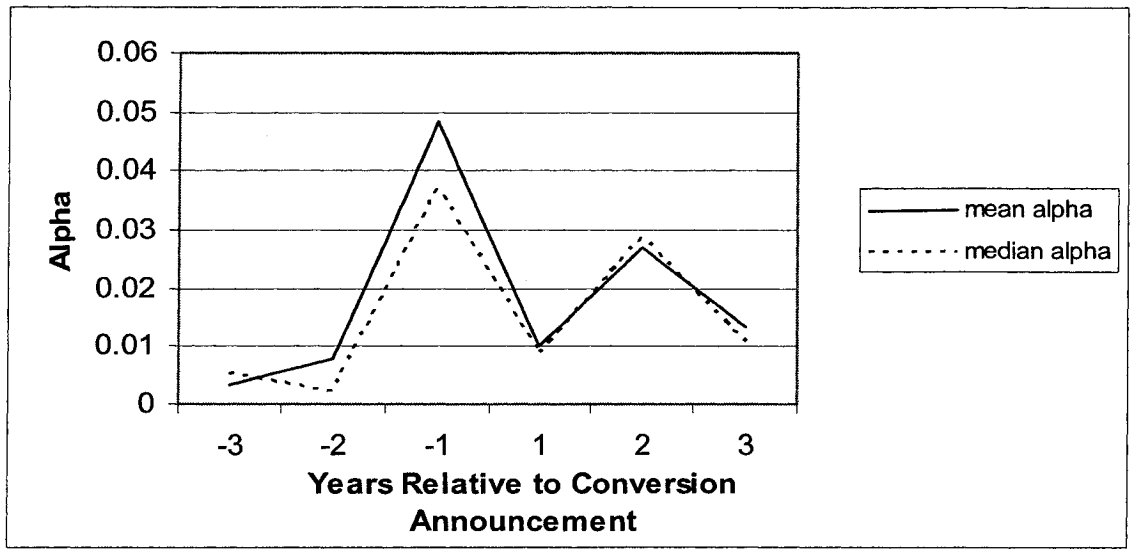

Figure 10. Annual cross-sectional mean and median alpha-to-beta ratios around the conversion announcements for the full sample

This figure plots the cross-sectional mean and median ratios of alpha divided by beta for the total sample of trust conversions for each 12 month period for the six years centered on the trust conversion announcements.

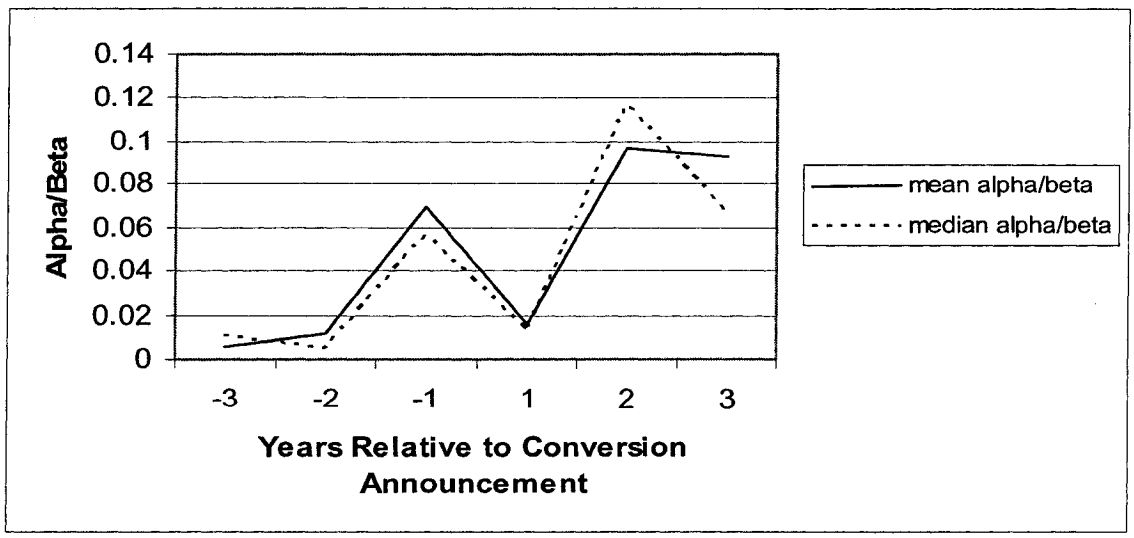

Figure 11. Annual cross-sectional mean and median betas around the conversion announcements for the sample with complete data

This figure plots the cross-sectional mean and median betas for the sample of trust conversions with complete data for each 12 month period for the six years centered on the trust conversion announcements.

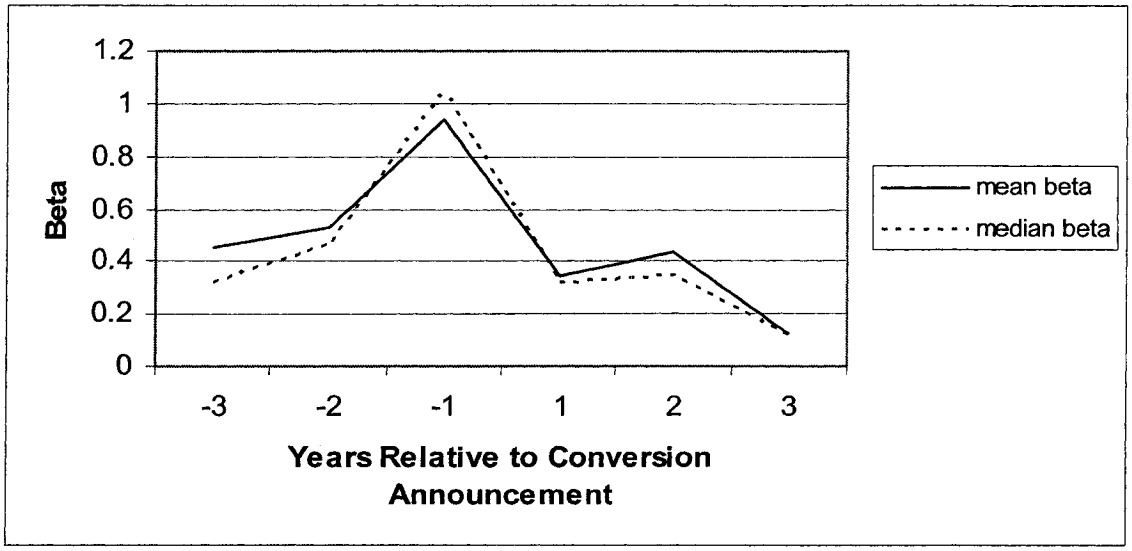

Figure 12. Annual cross-sectional mean and median alphas around the conversion announcements for the sample with complete data

This figure plots the cross-sectional mean and median alphas for the sample of trust conversions with complete data for each 12 month period for the six years centered on the trust conversion announcements.

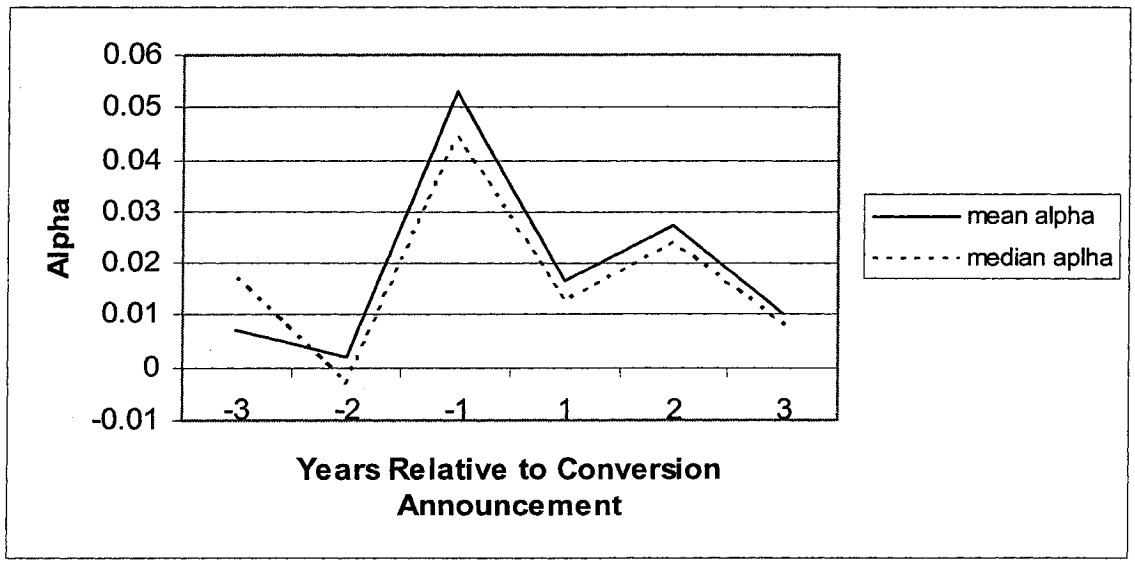

Figure 13. Annual cross-sectional mean and median ratios of alpha to beta around the conversion announcements for the sample with complete data

This figure plots the cross-sectional mean and median ratios of alpha to beta for the sample of trust conversions with complete data for each 12 month period for the six years centered on the trust conversion announcements

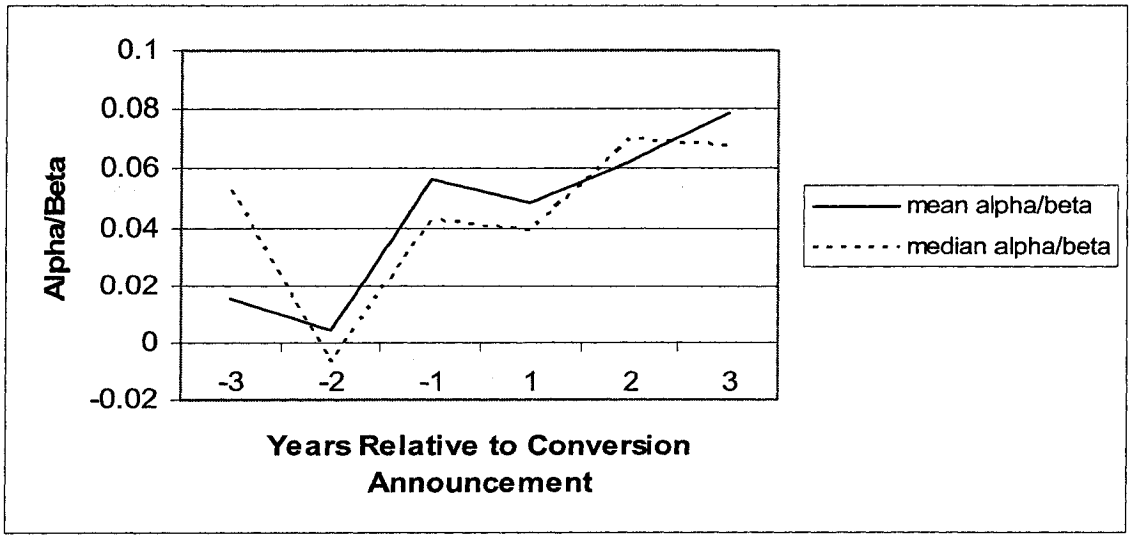

Figure 14. Annual cross-sectional mean betas around the conversion announcements for the three major trust categories

This figure plots the cross-sectional mean betas for each 12 month period for the six years centered on the trust conversion announcements for each of the three major trust categories.

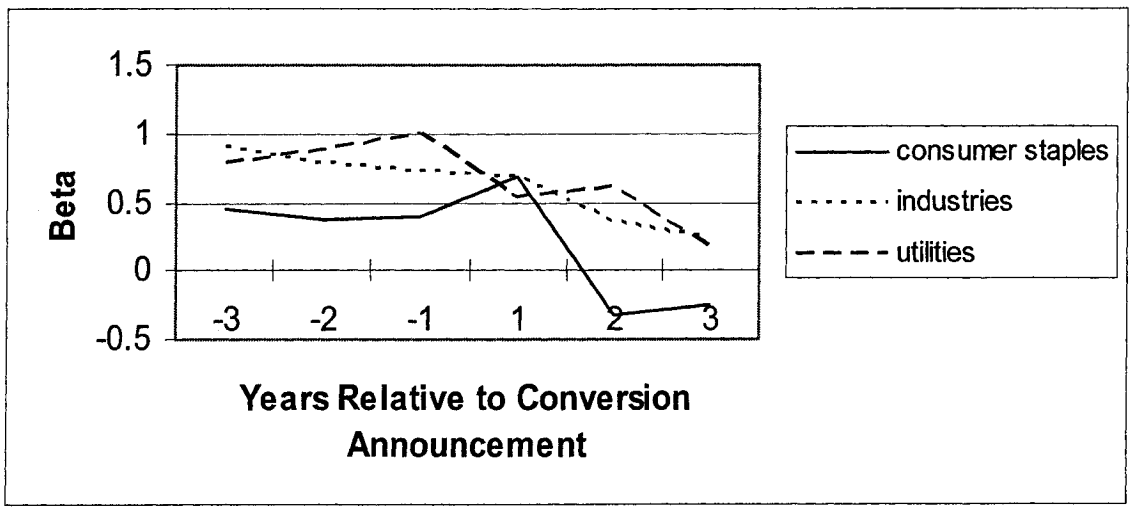

Figure 15. Annual cross-sectional mean alphas around the conversion announcements for the three major trust categories

This figure plots the cross-sectional mean alphas for each 12 month period for the six years centered on the trust conversion announcements for each of the three major trust categories.

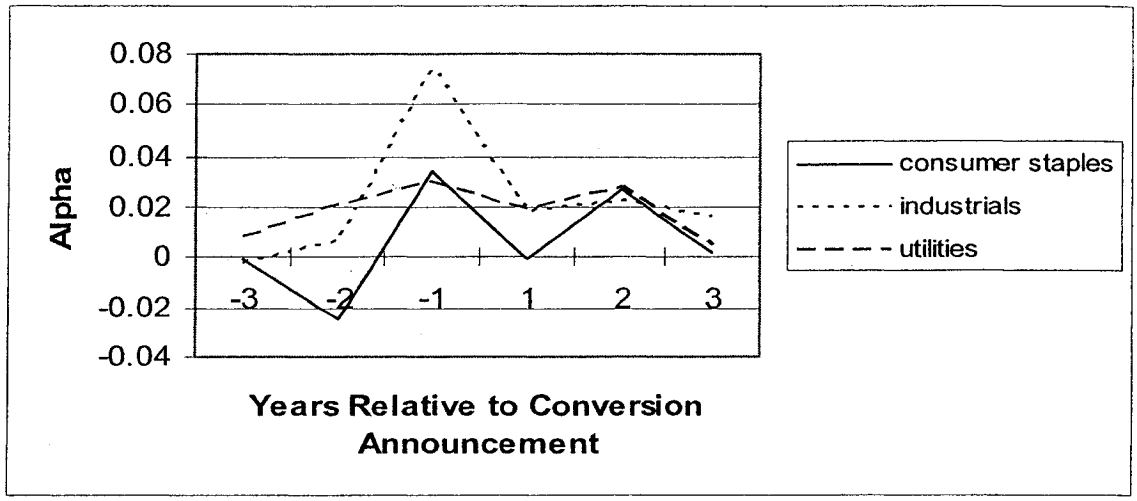

Figure 16. Annual cross-sectional mean ratios of alpha to beta around the conversion announcements for the three major trust categories

This figure plots the cross-sectional mean ratios of alpha to beta for each 12 month period for the six years centered on the trust conversion announcements for each of the three major trust categories. Since the mean beta for the consumer staples category is negative for years +2 and +3, no ratio is calculated for these two years.