Corporate Dividend Yields and the Lifetime Capital Gains Exemption

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PRÉCIS
Cet article examine l’impact sur le rendement des dividendes de l’introduction en 1985 de la disposition relative à l’exonération des gains en capital dans l’impôt sur le revenu des particuliers. À partir de 1985, les particuliers pouvaient exclure de leur revenu imposable un montant cumulatif (à vie) de 500 000 $ de gains en capital. Selon une hypothèse, le désavantage fiscal relatif que cela conférait aux dividendes a eu pour effet d’inciter les entreprises à diminuer le rendement de leurs dividendes. À partir des données des déclarations financières pour la période 1983 à 1987, les résultats empiriques présentés ici tendent à corroborer cette hypothèse. Cet article fournit également des preuves empiriques qui valident « l’effet de clientèle » et suggère que plus le niveau d’actionnariat de type institutionnel d’une entreprise est faible, plus grande est la diminution du rendement des dividendes imputable à l’exonération cumulative des gains en capital. En outre, l’auteur montre que le type d’industrie, la dimension de l’entreprise de même que le niveau de liquidités influencent le rendement des dividendes.

ABSTRACT
This article examines the change in corporate dividend yields resulting from the introduction of the capital gains exemption to individual taxpayers in 1985. In that year, individual taxpayers were offered a cumulative lifetime capital gains exemption (LCGE) of $500,000. According to one hypothesis, the resulting relative tax disadvantage of dividends induces firms to reduce their dividend yields. Empirical evidence presented here, based on financial reporting data for the years 1983 to 1987, supports this hypothesis. This article also provides evidence supporting the tax clientele effect and finds that the lower a firm’s level of institutional shareholding, the greater the reduction in dividend yields after the introduction of the LCGE. In addition, the writer provides evidence to show that industry, firm size, and liquidity influence dividend yields.

KEYWORDS: LIFETIME CAPITAL GAINS EXEMPTION ■ DIVIDEND YIELD ■ INSTITUTIONAL SHAREHOLDING

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INTRODUCTION

A great deal of financial, economic, and accounting literature analyzes the relationship between personal taxation and dividends. There is no consensus on the matter. Some studies find that dividends are negatively associated with personal tax rates, while others find no such relationship. Some survey studies find that firm managers are aware of their shareholders’ personal tax rates in a general sense, but that they do not know who their shareholders are; this casts doubt on the argument that dividend yields are based on shareholders’ tax rates. Several event studies find that share price reaction to personal tax rates depends on whether the shares are high-dividend-yield or low-dividend-yield shares. McKenzie and Thompson find no such evidence for Canada, however, and Amoako-Adu et al. find the evidence for Canada to be weak.

This study reconsiders the results in the literature investigating the effect of personal taxation on firms’ dividend decisions.

Unlike the authors of the event studies investigating share prices around the time of dividend announcements, I employ a level method. That is, I examine the relationship between firm-specific characteristics and dividend yields. Here, I am in agreement with Mann, who argues the case for going beyond event studies that investigate prices around the time of dividend announcements, since underlying factors other than the dividend itself may be responsible for changes in returns at those times.

According to proponents of the tax clientele effect on dividend yields, shareholders’ personal tax rates affect dividends. Shareholders receive the return to shares, and are taxed on the return to shares, either as dividends or as capital gains. Now, dividends and capital gains are taxed differently depending on whether the shareholder is an individual or an institution. The tax clientele hypothesis holds that shareholders attach to firms that have dividend yields appropriate to their particular tax circumstances. The firms I studied reacted to the lifetime capital gains exemption (LCGE) in accordance with the type of their tax clientele. The underlying reason for this is that individual and institutional shareholders were not affected by the change in the capital gains tax in the same way. Institutional shareholders, for example, were not offered the LCGE until 1987.

Using financial reporting data for the years 1983 to 1987, I find that, ceteris paribus, firms reduced their dividend yields by 0.27 percentage points following the introduction of the LCGE. This reduction implies that dividend yields dropped from 2.35 percent in 1983 and 1984 to 2.12 percent during the 1985-1987 period (see table 3).

In addition, I split the sample into two subsamples to assess potential differences in dividend yields. I find that firms with low institutional shareholding reduced their dividend yields in the post-1984 period by 0.38 percentage points (statistically significant at the 0.001 level). In contrast, firms with high institutional shareholding reduced their dividend yields by only 0.06 percentage points in the post-1984 period (not statistically significant).

The remainder of this article is organized as follows. In the second section, I specify the personal tax and other factors that affect a firm’s dividend yield, and
develop the hypotheses to be tested. In the third section, I discuss the methodology, the data collected, and the variables used to test the hypotheses, and I present the test results. In the fourth section, I provide the sensitivity tests used on the data. The fifth section contains my summary and concluding remarks.

**THE RESPONSE OF DIVIDENDS TO CHANGES IN TAXES AND TO SHAREHOLDER CHARACTERISTICS**

Shareholders receive and are taxed on the return to shares in three forms: as dividends, as capital gains from sales, and as capital gains from share repurchases. The different effective statutory tax rates on dividends and capital gains can affect not only shareholders’ trading behaviour, but also firms’ dividend yields. If, for example, the effective tax rate on capital gains is reduced, shareholders may prefer capital gains to dividends. In response to the resultant decreasing demand for dividends, firms will pay lower dividends.

Tax rules on capital gains have been changed over time in Canada. There was no tax on capital gains in Canada before 1972. Since the introduction of the tax, capital gains have been taxed on realization. From 1972 to 1987, one-half of capital gains was taxable, and one-half of capital losses was deductible against taxable capital gains. During the years 1988 and 1989, two-thirds of capital gains was taxable, and two-thirds of capital losses was deductible against taxable capital gains. From 1989 to 1999, three-quarters of capital gains was taxable, and three-quarters of capital losses was deductible against taxable capital gains.

To encourage investment, the federal government introduced in May 1985 a cumulative LCGE of $500,000 for all individual taxpayers in Canada. In 1987, the exemption was extended to corporations. In 1989, its amount was reduced to $100,000. Before the 1992 federal budget, the exemption was unrestricted as to the type of capital gains. The 1992 federal budget imposed a restriction on the capital gains from real properties, that is, land and buildings. The 1994 federal budget eliminated the general capital gains exemption but retained the exemption of capital gains from small business and farming. In summary, relative to dividends, the effective tax rate on capital gains was substantially reduced as a result of the LCGE introduced in 1985. I argue that in response to the reduction in the individual capital gains tax, ceteris paribus, firms paid lower dividends in the years 1985 to 1987 than in 1983 and 1984.
In addition, I argue that the LCGE had a limited effect on the dividend yield of firms with high levels of institutional shareholding. Two reasons account for this. First, the LCGE was not applicable to corporations until 1987. Second, some institutional shareholders are tax-exempt (for example, pension funds, universities, charities), and thus are not affected by the LCGE.

In summary, the hypotheses I develop are as follows:

**Hypothesis 1:** Ceteris paribus, firms reduced their dividend yields in the years 1985 to 1987 compared with the years 1983 and 1984.

**Hypothesis 2:** Ceteris paribus, firms with high levels of institutional shareholding reduced their dividend yields to a lesser extent than firms with low levels of institutional shareholding.

I control for industry effects, firm size, and liquidity, since these factors have been found to influence a firm’s dividend policy. Dividends and capital gains are taxed differently depending on whether the investors are individual investors, corporate investors, tax-exempt investors, or tax-deferred investors. Hence, such tax clienteles prefer different dividend yields, and investors attach to firms that have dividend yields appropriate to their particular tax circumstances. For example, tax-exempt investors such as pension funds may prefer a high-dividend yield, since they are not taxed on their dividends. In testing the hypotheses, I add a variable for the tax clientele effect measured as the proportion of institutional ownership to total ownership. Hypothesis 2 predicts that a positive relationship exists between dividend yields and institutional ownership.

A firm’s liquidity requirements may also affect its dividend yield. Liquid firms can afford higher dividend yields without resorting to external financing. I use a firm’s cash flow from operations as an indicator of liquidity, and argue that dividend yields are positively related to cash flow.

Firm size has also been found to influence a firm’s dividend yield. Studies by Holder et al., Vogt, and Lloyd et al. find that larger and more mature firms tend to have more stable cash flows and easier access to the capital market than other firms, thereby reducing their dependence on internal funding and allowing for higher dividends. I control for firm size, and predict a positive relationship between dividend yields and firm size.

Finally, industry affiliation has been found to have explanatory power for a firm’s dividends. Hence, I control for industry effect in this study.

**AN EXAMINATION OF CANADIAN DIVIDEND YIELD DATA**

**Data Collection and Variables**

I collect firm-specific Canadian data from the *Financial Post Card* for the years 1983 to 1987. The sample consists of all firms that meet the following criteria:
1. The firm’s accounting data are available in the *Financial Post Card* for the five years 1983 through 1987.
2. The firm is not in the financial, insurance, or real estate industries (no firms with SIC codes between 6000 and 6999 are included).

The final sample consists of 330 companies for each year, or 1,650 firm-year observations. This sample constitutes approximately 30 percent of the population of all Canadian publicly traded companies.

The variables used to test the hypotheses were measured as follows:

- Dividend yield was used as the dependent variable. It was measured as dividend per share divided by share price. Share price is the average of the high and the low price for the year, which can be obtained from the historical summary in the *Financial Post Card*.
- To test for the effect of the LCGE on firm dividend yields, I used a binary variable to code the years 1985 to 1987 with a value of 1, and the years 1983 and 1984 with a value of 0.
- To test for the clientele effect, I used a binary variable coded 1 for firms with institutional ownership greater than 50 percent, and 0 for other firms. The institutional investors included companies, banks, insurance firms, pension plans, and trust investors. I located the major shareholders for each firm that appears in the *Financial Post Card* from 1984 to 1986, and calculated the ratio of shareholding by major institutions to total shareholding. That is, the binary variable is equal to 1 if the level of institutional shareholding is high, and 0 if the level of institutional shareholding is low.
- To control for firm size, I used the log of the operating revenue at the end of the fiscal year.\(^{20}\)
- To control for liquidity, I measured the cash flow from operations deflated by the book value of total assets at the end of the fiscal year.
- To control for industry effect, I used five binary variables to represent five industries, as classified according to the SIC codes: oil and gas (SIC 1300-1399, 60 firms); metal and mineral mining (SIC 1000-1299 and 1400-1499, 45 firms); manufacturing (SIC 2000-3999, 127 firms); transportation, communications, and utilities (SIC 4000-4999, 37 firms); wholesale and retail trade (SIC 5000-5999, 34 firms); and other (27 firms in the construction industry or a service industry).

**The Model**

To test hypothesis 1, I estimated the following linear regression model:

\[
DIV_{it} = \alpha_0 + \alpha_1 \text{YEAR} + \alpha_2 \text{INST}_i + \alpha_3 \text{CFO}_{it} + \alpha_4 \text{SIZE}_{it} + \sum_{j=1}^{5} \gamma_j \text{INDU}_{ij} + \varepsilon_{it}. \tag{1}
\]
To test hypothesis 2, I separated the sample into two subsamples: a subsample of high institutional shareholders ($\text{INST}_i = 1$), and a subsample of low institutional shareholders ($\text{INST}_i = 0$). I estimated the following model:

$$
\text{DIV}_{it} = \beta_0 + \beta_1 \text{YEAR} + \beta_2 \text{CFO}_{it} + \beta_3 \text{SIZE}_{it} + \sum_{j=1}^{5} \lambda_j \text{INDU}_{ij} + \theta_{it},
$$

(2)

where

- $\text{DIV}_{it}$ = dividend yield for firm $i$ in year $t$, where dividend yield = dividend per share/share price;
- $\text{YEAR}$ = indicator variable, coded 1 for years in the period 1985-1987 and 0 for years in the period 1983-1984;
- $\text{INST}_{it}$ = indicator variable, coded 1 for institutional ownership > 50% and 0 otherwise;\(^21\)
- $\text{SIZE}_{it}$ = firm size for firm $i$ in year $t$, estimated by the log of the operating revenue at the end of the fiscal year $t$;\(^22\)
- $\text{CFO}_{it}$ = liquidity of firm $i$ in year $t$, estimated by cash flow from operations, deflated by book value of total assets at the end of fiscal year $t$;
- $\text{INDU}_{ij} = 1$, for firm $i$ in industry $j$ ($j = 1, 2, \ldots 5$).

Hypothesis 1 predicts $\alpha_1 < 0$.

Furthermore, hypothesis 2 predicts $\beta_1$ to be more negative for the subsample of low institutional shareholders than for the subsample of high institutional shareholders.

Hypothesis 2 is tested using equation (2) rather than equation (1). The coefficient on $\text{INST}$ ($\alpha_2$) is positive to reflect the higher dividend yield among firms with high levels of institutional shareholding. However, $\alpha_2$ reflects an intercept shift for firms with high levels of institutional shareholding, and not the slope shift resulting from the change in tax regime. Comparing $\beta_1$ of firms with low and high levels of institutional shareholding in equation (2) allows testing for changes in dividend yields across the two subsamples as a result of the introduction of the LCGE.

**Results**

Table 1 presents the descriptive statistics of the variables. Table 2 presents the Pearson correlation matrix of the relevant variables. It shows that dividend yields are positively correlated to the institutional shareholding indicator and are negatively correlated to the year indicator. This set of correlations gives tentative support to the hypotheses.

For the correlation between the independent variables, the smallest correlation is 0 between the year indicator and the institutional shareholding indicator. The largest correlation is 0.142 between the institutional shareholding indicator and firm size. No correlation has an absolute value larger than 0.3. This suggests that multicollinearity is not an issue.
Table 3 compares the mean and median of dividend level, dividend yield, dividend payout, and cash flow before and after 1985. It shows that the mean of dividend level, dividend yield, and dividend payout were lower in the years 1983 and 1984 than in the 1985-1987 period. The median value showed little change between the two periods.

Table 4 presents the results from regression equation (1). All the coefficients have the predicted signs and are statistically significant at the 0.05 level. Ceteris paribus, firms reduced their dividend yields by 0.27 percentage points in 1985 and subsequent years ($\alpha_1 = -0.0027$). Since the average dividend yield for the years 1983 and 1984 was 2.35 percent (see table 3), a reduction in dividend yield of 0.27 percentage points would imply a drop in dividend yields from 2.35 percent in 1983 and 1984 to 2.08 percent during the 1985-1987 period ($= 0.024 - 0.0027$). Firms with high levels of institutional shareholding had, on average, dividend yields that were 0.83 percentage points higher than those of firms with low levels of institutional shareholding.
TABLE 3  Comparisons of Firms’ Dividends and Cash Flow Before and After 1985

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Dividend level ($)</td>
<td>0.438</td>
<td>0.200</td>
</tr>
<tr>
<td>Dividend yield (= DIV / PRICE)</td>
<td>0.0235</td>
<td>0.017</td>
</tr>
<tr>
<td>Dividend payout</td>
<td>0.105</td>
<td>0.017</td>
</tr>
<tr>
<td>CFO</td>
<td>0.087</td>
<td>0.084</td>
</tr>
</tbody>
</table>

Note: The sample contains 330 firms listed in the Financial Post Card for the years 1983 to 1987. Dividend level is measured as dividend per share. Dividend yield is measured as dividend per share divided by share price. Dividend payout is measured as dividend per share divided by net income (the observations with negative net income are deleted). Cash flow (CFO) is measured as the cash flow from operations, deflated by total asset value at the end of the fiscal year.

TABLE 4  Regression Results for Testing Hypothesis 1

<table>
<thead>
<tr>
<th></th>
<th>Predicted sign</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>−</td>
<td>0.004</td>
<td>0.003</td>
<td>1.228</td>
</tr>
<tr>
<td>YEAR</td>
<td>−</td>
<td>−0.0027</td>
<td>0.002</td>
<td>−1.773a</td>
</tr>
<tr>
<td>INST</td>
<td>+</td>
<td>0.008</td>
<td>0.002</td>
<td>5.205b</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.004</td>
<td>0.001</td>
<td>4.412b</td>
</tr>
<tr>
<td>CFO</td>
<td>+</td>
<td>0.023</td>
<td>0.009</td>
<td>2.490c</td>
</tr>
<tr>
<td>INDU (sales)</td>
<td></td>
<td>0.006</td>
<td>0.004</td>
<td>1.648</td>
</tr>
<tr>
<td>INDU (manufacturing)</td>
<td></td>
<td>0.032</td>
<td>0.003</td>
<td>9.154b</td>
</tr>
<tr>
<td>INDU (transportation, etc.)</td>
<td></td>
<td>0.010</td>
<td>0.003</td>
<td>3.493b</td>
</tr>
<tr>
<td>INDU (oil and gas)</td>
<td></td>
<td>−0.005</td>
<td>0.003</td>
<td>−1.435</td>
</tr>
<tr>
<td>INDU (mining)</td>
<td></td>
<td>−0.004</td>
<td>0.003</td>
<td>−1.295</td>
</tr>
</tbody>
</table>

$R^2 = 0.173.$

a Statistically significant at the 0.05 level.
b Statistically significant at the 0.001 level.
c Statistically significant at the 0.005 level.

Note: The sample contains 330 firms listed in the Financial Post Card for the years 1983 to 1987. Dividend yield is measured as the dividend per share divided by the share price. A binary variable takes on 1 for the years 1985 to 1987 and 0 otherwise. Institutional ownership is a binary variable taking on 1 if the percentage of major institutional shareholding to total shareholding is greater than 50 percent, and 0 otherwise. Institutional shareholding includes shareholding by corporate, bank, insurance company, pension plan, and trust company shareholders. Firm size is measured as the log of the operating revenue. Liquidity is measured as the cash flow from operations, deflated by total asset value at the end of the fiscal year. Firms are classified into five industries according to their SIC codes. The t-test value is based on a one-tailed test, since the predicted signs are known.
shareholding ($\alpha_2 = 0.0083$). Firms with greater cash flows had higher dividend yields ($\alpha_3 > 0$), as did larger firms ($\alpha_4 > 0$). Firms in the manufacturing, transportation, communications, and utility industries also had higher dividend yields at a statistically significant level.

White’s test for heteroskedasticity was applied, and none was detected. This suggests that the mean squared error term in the regression model is constant across observations.

To test the second hypothesis, I divided the sample into two subsamples: a high institutional shareholding subsample (the institutional ownership binary variable is 1) with a sample size of 110 firms, and a low institutional shareholding subsample (the institutional ownership binary variable is 0) with a sample size of 220 firms. The results from regressing equation (2) are presented in tables 5 and 6. The regression results for the subsample of low institutional shareholders are presented in table 5. The coefficient on the \textit{YEAR} binary variable in table 5 is $-0.0038$ ($t = -3.3493$). The corresponding coefficient in table 6, which presents the regression results for the subsample of high institutional shareholders, is $-0.0006$. This suggests that firms with low levels of institutional shareholding reduced their dividend yields to a greater degree in the post-1984 period than did firms with high levels of institutional shareholding.

Table 6 shows that the \textit{YEAR} binary variable is not statistically significant ($t = -0.1489$). That is, firms with high levels of institutional shareholding did not significantly reduce dividend yields upon the introduction of the lifetime exemption. The Chow test was used to find that the coefficients for the two subsamples are significantly different ($F$ test $= 8.3637$).

**SENSITIVITY TESTS**

I conducted a number of sensitivity tests on the data. To test for sensitivity to extreme data, I deleted the outlier observations. With the deletion of 20 observations (1.2 percent of the total observations) with dividend yields greater than 10 percent, the results did not change qualitatively.

- I measured institutional shareholding by a continuous variable (that is, I used institutional shareholding as a proportion of total shareholding as a proxy for the institutional ownership variable). The results did not change qualitatively.

- I deleted 91 firms that did not pay dividends in any year from 1983 to 1987, or 455 firm-year observations. The results did not change qualitatively.

- I used dividend payout as the dependent variable, where dividend payout is measured as dividends paid divided by net income. I deleted 91 firms that did not pay any dividends during the 1983-1987 period. I also deleted observations with non-positive net income (135 observations), and dividend payout outliers (156 firm-year observations, or 9 percent of the total observations, that had dividend payout equal to zero or greater than 0.27). The results did not change qualitatively.
Finally, since the federal budget containing the exemption rule was announced in May 1985, it can be argued that dividends paid in 1985 before May might not have been affected by the exemption rule. The results did not qualitatively change upon deletion of the 1985 observations from the sample.

**CONCLUSION**

This article has examined the role of personal taxes in determining firms’ dividend yields. Using Canadian financial reporting data, I have shown that changes in capital gains taxation relative to dividend taxation have an effect on firms’ dividend yields. The effective tax rate on capital gains for investors, especially for individual investors, was reduced in 1985 as a result of the $500,000 LCGE. It is argued that, in response to the LCGE, individual shareholders prefer capital gains to dividends. In response to the decreasing demand for dividends, firms are anticipated to pay lower dividends. The tests in this study support this argument. I have shown that, ceteris paribus, firms reduced their dividend yields by 0.27 percentage points following the introduction of the LCGE, a reduction in dividend yields from 2.35 percent in 1983 and 1984 to 2.12 percent during the 1985-1987 period.

Since institutional shareholders were not affected by the LCGE in the same way as individual shareholders were, I chose also to investigate whether firms’ dividend yields reacted in accordance with their level of institutional shareholding. I split the firm-years into two subsamples (high institutional shareholders and low institutional shareholders), and found that firms with low levels of institutional shareholding reduced their dividend yields in the post-1984 period by 0.38 percentage points (statistically significant at the 0.001 level). This contrasts with the data from firms with high levels of institutional shareholding, which reduced their

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**TABLE 5**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Predicted sign</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td></td>
<td>0.003</td>
<td>0.002</td>
<td>0.375</td>
</tr>
<tr>
<td>YEAR</td>
<td>−</td>
<td>−0.0038</td>
<td>0.001</td>
<td>−3.349a</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.006</td>
<td>0.001</td>
<td>8.605a</td>
</tr>
<tr>
<td>CFO</td>
<td>+</td>
<td>0.019</td>
<td>0.006</td>
<td>2.947b</td>
</tr>
<tr>
<td>INDU (sales)</td>
<td></td>
<td>0.007</td>
<td>0.003</td>
<td>2.634b</td>
</tr>
<tr>
<td>INDU (transportation, etc.)</td>
<td></td>
<td>0.022</td>
<td>0.002</td>
<td>8.945a</td>
</tr>
<tr>
<td>INDU (manufacturing)</td>
<td></td>
<td>0.007</td>
<td>0.002</td>
<td>3.275a</td>
</tr>
<tr>
<td>INDU (oil and gas)</td>
<td></td>
<td>−0.005</td>
<td>0.002</td>
<td>−2.311b</td>
</tr>
<tr>
<td>INDU (mining)</td>
<td></td>
<td>−0.002</td>
<td>0.002</td>
<td>−0.801</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.297. \]

a Statistically significant at the 0.001 level.

b Statistically significant at the 0.005 level.

Note: The sample contains 220 firms listed in the *Financial Post Card* for the years 1983 to 1987. For these firms, the institutional ownership, calculated by the percentage of major institutional shareholding to total shareholding, is less than or equal to 50 percent. The \( t \)-test value is based on a one-tailed test.
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... dividend yields by only 0.06 percentage points in the same period. The difference between pre-1985 and post-1984 dividend yields is not statistically different from zero for this subsample.

There are two reasons for my choice of the 1983-1987 time period for this study: (1) Cross-sectional testing using data for only one year may not be appropriate because dividend yields may change only gradually; and (2) I sought to test whether the 1985 exemption affected a firm’s dividend yield. I did not extend the time period beyond 1987, because tax rules changed in 1988. In that year, the inclusion (deduction) rate on capital gains (capital losses) was changed to two-thirds. In addition, the 1987 tax reform introduced dramatic personal and corporate tax changes. Isolating the 1985 LCGE effect from other tax changes is likely to be difficult. Future studies can be done to collect data for more recent years and examine whether the elimination of the general capital gains exemption and the increase in share repurchases have affected firms’ dividend yields.

NOTES


### TABLE 6 Regression Results for Testing Hypothesis 2: Firms with High Levels of Institutional Shareholding

<table>
<thead>
<tr>
<th>Predicted sign</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.012</td>
<td>0.009</td>
<td>1.258</td>
</tr>
<tr>
<td>YEAR</td>
<td>−</td>
<td>−0.0006</td>
<td>0.004</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>CFO</td>
<td>+</td>
<td>0.014</td>
<td>0.028</td>
</tr>
<tr>
<td>INDU (sales)</td>
<td></td>
<td>0.004</td>
<td>0.010</td>
</tr>
<tr>
<td>INDU (transportation, etc.)</td>
<td></td>
<td>0.056</td>
<td>0.010</td>
</tr>
<tr>
<td>INDU (manufacturing)</td>
<td></td>
<td>0.018</td>
<td>0.008</td>
</tr>
<tr>
<td>INDU (oil and gas)</td>
<td></td>
<td>0.001</td>
<td>0.009</td>
</tr>
<tr>
<td>INDU (mining)</td>
<td></td>
<td>−0.009</td>
<td>0.009</td>
</tr>
</tbody>
</table>

R^2 = 0.132.

^a Statistically significant at the 0.001 level.

^b Statistically significant at the 0.005 level.

Note: The sample contains 110 firms listed in the Financial Post Card for the years 1983 to 1987. For these firms, institutional ownership, calculated as the percentage of major institutional shareholding to total shareholding, is greater than 50 percent. The t-test value is based on a one-tailed test.


3 See Bolster and Janjigian, supra note 1; Crockett and Friend, ibid.; and Lewellen et al., ibid.

4 See Baker and Powell, ibid.; Abrutyn and Turner, ibid.; and Baker et al., ibid.

5 Ayers et al., ibid.; Lang and Shackelford, ibid.; Jang, ibid.; and Poterba and Summers, ibid.

6 McKenzie and Thompson, ibid.

7 Amoako-Adu et al., ibid.

8 Mann, ibid.


11 The 1985 budget also eliminated the ability to write off up to $2,000 in capital losses against other sources of income, essentially increasing the effective tax rate on capital gains for most individuals.

12 The time period of the sample in this study is 1983-1987 since I seek to isolate the LCGE from other changes in personal taxation. See also J. Harvey Perry, Taxation in Canada, 5th ed., Canadian Tax Paper no. 89 (Toronto: Canadian Tax Foundation, 1990).


15 Holder et al., supra note 1.


18 See, for example, Dempsey et al., supra note 13; Baker et al., supra note 1; and Allen Michel, “Industry Influence on Dividend Policy” (1979) vol. 8, no. 1 *Financial Management* 22-26.


20 I also measure firm size as the log of total asset value. The statistical results are not qualitatively different.

21 I chose to measure institutional shareholding using a binary variable rather than a continuous variable (that is, percentage of institutional shareholding). The reason for my choice is that the continuous variable cannot capture the difference between shareholding a little bit higher than 50 percent and that a little bit lower than 50 percent. For example, if I use the percentage of shareholding, the difference between 49 percent shareholding and 51 percent shareholding is only 2 percent. However, the underlying difference is large (that is, 51 percent shareholding can control the firm). Of the sample, 11.2 percent (or 185 firm-years) had institutional ownership between 47 percent and 53 percent. Nevertheless, I used the percentage of shareholding for a sensitivity test, and the results did not change qualitatively.

22 Firm size takes on a value of −2 if the operating revenue is negative, since the log of a negative number is meaningless. In a sensitivity test, I deleted the firm years with negative operating revenue. The regression results did not change qualitatively.


24 An unpublished appendix with the details of the econometric results is available from the author on request.