

POLITICAL COSTS AND LOBBYING ACTIVITY OF AUSTRALIAN GOLD MINING FIRMS

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Abstract

This paper provides empirical evidence on the lobbying behaviour induced by political costs in the Australian gold mining industry. The Australian gold mining industry remained tax-exempt for nearly seven decades until 1 January 1991. Due to its rapid prosperity in the early 1980s, the industry came under intense political scrutiny in the mid- to late-1980s. In particular, in December 1985 a federal tax inquiry was commissioned which investigated the economic and social impact of removing the tax-exempt status of the industry. Using the voluntary submissions to the federal tax inquiry as a measure of lobbying activity, this study documents that gold mining firms' lobbying positions were positively related to the quantity of recoverable gold reserves held by them and profitability of their operations. Results of this paper confirm findings in prior research that firm lobbying positions are consistent with the adverse economic consequences of regulatory changes.

Keywords: Political costs; Corporate lobbying; Gold reserves; Profitability; Gold mining; Tax inquiry; Australia; Gold exploration; Gold tax.

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1. Introduction

Corporate lobbying is a non-market, political process. Firms engage in lobbying activities as part of their overall strategies in maximising shareholder value. Although corporate lobbying is common in Australia, except for a few studies (e.g., Gerhardy and Wyatt 2002; Hill, Shelton and Stevens 2002; Ang, Gallery and Sidhu 2000; Pacecca 1995; Sims and Cullis 1995; Klumpes 1994; Tutticci, Dunstan and Holmes 1994), lobbying research has not received much attention in Australia. This paper extends the lobbying literature by providing evidence of lobbying the federal tax inquiry on gold mining by a sample of Australian gold mining firms to mitigate their political costs. In particular, it examines what firm-specific factors can explain the lobbying behaviour of the sample firms in relation to the introduction of income tax on gold mining. Identifying economic determinants of lobbying can help explain differential lobbying positions that firms take and is useful to regulatory bodies in understanding corporate lobbying behaviour.

In Australia, income from gold mining remained tax-exempt for nearly seven decades until 1 January 1991. In the mid-1980s, the gold mining industry in Australia experienced phenomenal rise in earnings, production, industry membership, and private expenditure on gold exploration. For example, Australia's share of world gold production

increased from 2 percent (27 tonnes) in 1982 to 8.2 percent (157 tonnes) in 1988 (Gold Producers Handbook 1995, p. 71). With profit margins estimated around 100 percent, the 1980s was described in the financial press as a period of "runaway improvements in profits" (The Age, 13 August 1986, p. 23). Rapid prosperity of the Australian gold mining industry within half a decade or so brought the industry under political limelight. In its June 1985 draft White Paper on Reform of the Australian Tax System, the Labor government questioned the legitimacy of the industry's tax-exempt status. In November 1985, a federal tax inquiry on gold mining (hereafter, the Inquiry) was commissioned to investigate the economic and social implications of the removal of the industry's tax-exempt status. Till mid-May 1986, the Inquiry received more than 300 voluntary submissions from various organisations and individuals including many gold mining firms. In August 1986, the Inquiry submitted its report in favour of removing the tax-exempt status.

In this paper, I consider voluntary submission to the federal tax inquiry as a lobbying activity because the purpose of making a submission was to influence the outcome of the Inquiry. Further, I argue that firms engaged in lobbying to mitigate their political costs and political costs, in turn, were related to the firms' profitability, industry focus, and quantities of gold reserves held by the firms. Thus, this paper

provides a link between corporate lobbying and political costs when political costs are measured by firm-specific attributes. Logit analysis was conducted on a sample of 36 Australian gold mining firms with 86 firm-years data spread over the period 1986-1988. Results of the study suggest that the gold mining firms' submissions to the 1986 federal tax inquiry can be explained by the quantities of gold reserves held by the firms and profitability of their operations. Weak support was found for other explanatory variables such as industry focus level and firm size (as measured by total assets). Overall, results in this study imply that firms' lobbying positions were consistent with the adverse economic effects on them due to the proposed regulatory changes. The research setting here overcomes two common criticisms of lobbying research. First, it is often claimed that written submissions may be ambiguous in revealing lobbying positions (Holthausen and Leftwich 1983). Because the federal tax inquiry was commissioned to recommend whether or not to remove the tax-exempt status of the gold mining industry, lobbying positions of gold mining firms were very unlikely to be ambiguous (such as support the removal of the tax-exempt status but oppose on how to implement it). Further, given that all gold mining operations were to be taxed at the same rate, it is very unlikely that a firm supported the removal of the tax-exempt status via its written submission. Second, lobbying is viewed by some researchers as a multiperiod political process and lobbying position on a single issue may not reflect obvious self-interest (Amershi, Demski and Wolfson 1982; Francis 1987). The federal tax inquiry was commissioned on an ad hoc basis; it was unlike other permanent regulatory agencies such as accounting standards board. Thus, it is very unlikely that gold mining firms would take any position that would be inconsistent with their self-interest.

The rest of the paper is organised as follows. Section 2 provides an overview of the prior research on political costs and corporate lobbying. Section 3 discusses the institutional background to the gold tax in Australia. Hypotheses are developed in section 4. Section 5 discusses the research design and the sample selection procedure. Results are reported in section 6. Section 7 provides the summary and conclusions of the paper.

2. Prior Research on Political Costs and Corporate Lobbying

Prior research on political costs addressed mainly three issues: first, the association between effective tax rates (as a proxy for firms' political costs) and firm size (e.g., Zimmerman 1983; Wang 1991; Omer, Molloy, and Ziebart 1993; Gupta and Newberry 1997); second, the impact of political costs on accounting policy choice (Watts and Zimmerman 1978; Zmijewski and Hagerman 1981; Lilien and Pastena 1982; Sutton 1988; Wong 1988;

Sidhu 1993; Godfrey and Jones 1999) and third, earnings management through manipulation of accruals (Jones 1991; Cahan 1992; Hall 1993; Cahan, Chavis, and Elmendorf 1997; Hall and Stammerjohan 1997; Han and Wang 1998; Lim and Matolcsy 1999; Navissi 1999). One important question that has received little attention is why are some firms politically more sensitive than others? In other words, why does political sensitivity vary cross-sectionally within an industry? Using lobbying activity as a reflection of a firm's political sensitivity, this study identifies firm-specific factors that can explain for the differential lobbying positions of the gold mining firms.

In the accounting literature, prior research on lobbying addressed mainly two issues: (1) whether lobbying positions of lobbyists were consistent with their economic interests and (2) whether economic characteristics differed systematically between lobbying versus non-lobbying firms and between the firms lobbying for or against a regulatory change. In the U.S., lobbying position has been analysed in response to proposed change in accounting standards by the Financial Accounting Standards Board (FASB). Lobbying positions against proposed accounting standards could be explained by management compensation schemes, firm leverage, asset size, and stock ownership by management (Kelly 1982). Francis (1987) documents that lobbying is associated with firm size and adverse financial statement consequences. In the context of oil and gas firms, King and O'Keefe (1986) document that trading of corporate insiders was consistent with their firms' lobbying positions. Further, companies' lobbying positions against specific accounting standards were motivated by the adverse economic consequences imposed on the firms by the proposed new standard or changes in the existing standard (Deakin 1989). In a similar vein, lobbying positions of audit firms in relation to new accounting standards were found to be consistent with the wealth effects on the audit firms (Puro 1984). In Australia, Hill, Shelton, and Stevens (2002) provide evidence that economic self-interest is significantly related to the lobbying positions of management both on venue and format of financial disclosure. Similarly, Ang, Gallery and Sidhu (2000) provide evidence that is consistent with the firms' concern for potential adverse consequences in financial reporting. This paper extends the literature on lobbying by providing evidence on lobbying behaviour of a sample of Australian gold mining firms in relation to the introduction of gold tax.

3. Institutional Background to Gold Tax

In 1979 and 1980, gold prices in the world market as well as in Australia registered sharp rises. For example, in Australian dollars, the 1978 gold price of A\$157/oz increased by 74.5 percent to A\$274/oz in 1979 and gold prices in Australia nearly doubled in

the next year to A\$533/oz (Gold Producers Handbook, 1995). With the rising gold prices and against the backdrop of its tax-exempt status, the Australian gold mining industry prospered rapidly in terms of gold exploration, production, and export. For example, total private exploration expenditures on gold increased successively for eight years from A\$29.9 million in 1979-80 to A\$581 million in 1987-88 (Inquiry into the Taxation of Gold Mining, 1986). Similarly, mine production of gold increased successively for 10 years from 17 tonnes in 1980 to 242 tonnes in 1990 (Gold Producers Handbook, 1995). In 1985-86, gold was ranked tenth on the major export list of Australia, but by 1987-88, it had risen to be the third largest export industry behind wool and coal (The Australian, 17 May 1988, p. 15).

The continuous success and prosperity of the gold mining industry against the backdrop of its tax-exempt status spurred questions on the legitimacy of such preferential treatment. Editorial in The Age on 18 May 1982 read:

Australian taxpayers are theoretically subsidising gold mining companies to the tune of millions of dollars each year... Economically and morally there is no reason for the tax-free status to remain... (The Age, 18 May 1982, p. 13)

In its June 1985 draft White Paper on Reform of the Australian Tax System, the Labor government questioned the legitimacy of the tax-exempt status of the industry. The draft White Paper pointed out that the gold mining industry was "... the only case in the income tax law of a blanket exemption of the entire income of an industry..."(Reform of the Australian Taxation System [Draft White Paper], 1985, p. 45).

On 21 November 1985, the then Treasurer Mr. Paul Keating formally commissioned a federal tax inquiry to investigate the economic and social implications of removing the exemption (Inquiry into the Taxation of Gold Mining, 1986). The Inquiry invited submissions from interested parties till 16 May 1986 and received 304 submissions from various government departments, Chambers of Mines, mining companies and individuals. The Inquiry submitted its report in August 1986. In December 1986, the Government decided not to implement the recommendations of the tax inquiry report in fear that "...up to nine seats would be at risk at the next federal election if the tax were to proceed" (The Australian, 17 December 1986, p. 2).

The issue erupted again on the eve of the federal election of July, 1987. In the wake of suspicion in the gold mining industry that the gold tax was imminent if the Labor government were re-elected, Mr. Bob Hawke, the then Prime Minister, gave a written undertaking to the Australian Goldmining Industry Council (AGIC) that no gold tax would be introduced during the next three years of Labor government. Mr. John Howard, the then Opposition leader, also had to give similar written undertaking (The Australian Financial Review, 16 May 1988, p. 5).

In early 1988, the Australian Bureau of Agricultural and Resource Economics (ABARE) expressed that the tax-exempt status of the gold mining industry "...impeded the efficient allocation of resources to other industries within the mining sector" (The Australian Financial Review, 17 February 1988, p. 5). Similarly, in view of the Taxation Institute of Australia (TIA), the tax-exempt status was costing the government A\$289 million per annum in tax revenue (The Australian Financial Review, 22 March 1988, p. 15).

The gold tax debate reached its peak in May 1988 on the eve of the mini-budget proposals. In the midst of escalated political debate, on 25 May 1988, Mr. Paul Keating, the then Treasurer announced the abolition of the tax-exempt status with effect from 1 January 1991 (Parliamentary Debates [Representatives], Commonwealth of Australia, 35th Parliament, 1st Session, 2nd Period, p. 3013; Economic Statement, May 1988, p. 85). Consequently, with effect from 1 January 1991, income from gold mining was subject to tax.

4. Hypotheses

4.1 Profitability of Gold Mining Firms

Reported accounting numbers, especially reported earnings, are often used by politicians in creating or resolving "crises" (Watts and Zimmerman 1986, p. 230). Politicians consider large reported profits to be evidence of monopoly rents. The Australian gold mining industry experienced phenomenal rise in earnings in the 1980s. With no corporate tax, low production costs and escalating gold prices, the gold mining industry appeared to be one of the most profitable industries in Australia in the 1980s (The Bulletin, 12 January 1988, p. 105). In 1986, a survey of the 101 Australian gold producers found that operating profits of these firms were expected to grow from \$106 million in 1984-85 to \$283 million in 1985-86, \$901 million in 1986-87 and \$1.09 billion in 1987-88 (The Age, 26 August 1986, p. 33). In its 1987 annual survey of the top 1000 companies in Australia and New Zealand, Business Review Weekly described the gold mining industry as one of the most profitable industries in Australia (Business Review Weekly, 20 November 1987, p. 103). From 1985 to 1988, in terms of profit margin and return on equity, the gold mining industry had been performing much better compared to not only other metals but also the mean and median performance of all companies listed in the Australian stock exchange (The Stock Exchange Financial and Profitability Study: 1989 Summary Report, 1989).

However, it was unlikely that all gold mining firms were equally not likely to be equally profitable. Although all mining firms were facing the same international gold price structure, gold production costs and other management expenses were likely to vary across firms. In particular, exploration and

production costs can vary substantially from firm to firm depending on the depth and size of gold ore deposits, and whether exploration is undertaken in known gold fields or in remote areas and unproven fields (Inquiry into the Taxation of Gold Mining, 1986). Thus, although gold mining firms in general experienced a phenomenal rise in earnings in the 1980s, it is likely that there was substantial cross-sectional variation in profitability. Further, all else equal, larger profits would mean larger income tax liability. Thus, firms with greater profitability were likely to perceive themselves politically more sensitive and were more likely to make submissions to the federal tax inquiry than other less-profitable firms. Thus:

H1: Submissions to the federal tax inquiry were positively related to the profitability of the gold mining firms.

4.2 Industry Focus

Earnings from mines which were used primarily for extracting gold enjoyed the tax-exempt status under the income tax legislation. Thus, gold mining firms enjoyed their tax-exempt status mainly due to their operation of gold mines. It is likely that different gold mining firms had different scales of gold mining operations and some firms might have mines with more gold focus than that of other firms. Geological characteristics such as depth, size and grade of gold ore deposits can vary across gold mines. Moreover, different gold mining firms may have different levels of industry focus based on the firms' investment strategies. Thus, firms with more focus in the gold mining industry were likely to perceive themselves politically more sensitive than other firms and were more likely to make a submission to the gold tax inquiry. Accordingly,

H2: Submissions to the federal tax inquiry were positively related to industry focus of the gold mining firms.

4.3 Gold Reserves

The mining cycle starts from exploration through development to production. The success or failure of the entire mining investment depends largely on the success or failure of exploration. Other things being equal, the larger the quantity of mineral deposits discovered, the greater the success and return on the investments made. A common measure of the exploration success is the amount of proved and probable reserves of the mineral. Other things being equal, firms with larger amounts of proved and probable gold reserves would end up paying larger amounts of corporate tax through production and sale of gold. As a result, firms with larger amounts of proved and probable gold reserves were more likely

to oppose the gold tax and make submissions to the federal tax inquiry. Hence,

H3: Submissions to the federal tax inquiry were positively related to the amounts of proved and probable gold reserves held by the gold mining firms.

4.4 Firm Size

Following economists, accounting researchers assume that large firms are politically more sensitive and subject to relatively large wealth transfers than smaller firms (Watts and Zimmerman, 1986, p. 235). As a result, accounting researchers have widely used firm size as a proxy for firms' political costs (e.g., Watts and Zimmerman 1978; Zmijewski and Hagerman 1981; Lilien and Pastena 1982; Wong 1988; Omer, Molloy and Ziebart 1993; Gupta and Newberry 1997). In the spirit of prior research, firm size is used as a control variable in this study.

5. Research design and sample selection

5.1 Research Model

In this paper I propose that events surrounding the introduction of gold tax in Australia increased the political costs of Australian gold mining firms, and the gold mining firms, in turn, engaged in lobbying activity to mitigate the political costs. Further, lobbying positions of the mining firms were related to their profitability, industry focus, and quantities of recoverable gold reserves held by them. Submissions made by the sample firms are interpreted as the evidence of lobbying activities by the gold mining firms. In addition, I assume that the firms making submissions did oppose the gold tax in their submissions. This is a reasonable assumption because it is difficult to imagine why a firm making a submission would support the removal of the tax-exempt status. Without any intra-industry tax rebate, all gold mining firms were facing an income tax rate of 39% should the tax-exempt status be removed.

To test the extent to which the gold mining firms' lobbying behaviour could be explained by firm-specific factors, I use the following cross-sectional regression model:

$$\text{SUBMIT}_i = \alpha + \beta_1 \text{PROFITABILITY}_i + \beta_2 \text{FOCUS}_i + \beta_3 \text{RESERVE}_i + \beta_4 \text{SIZE}_i + \xi_i \quad (1)$$

where

SUBMIT_i = A dummy variable which takes a value of 1 if firm i made a submission to the federal tax inquiry and zero otherwise;

PROFITABILITY_i = Profitability of firm i at the end of a year;

FOCUS_i = Industry focus of firm i at the end of a year;

RESERVE_i = Recoverable gold (measured in troy ounces) held by firm i at the end of a year;

$SIZE_i$ = Size of firm i at the end of a year;

ξ_i = The error term for firm i .

In model (1) all explanatory variables are expected to have a positive coefficient as greater profitability, higher industry focus, larger quantities of recoverable reserves, and larger firm size are likely to increase political sensitivity of a firm. The variables are operationalised as follows:

PROFITABILITY is measured by return on equity (ROE). $ROE = \text{Net income after tax} / \text{Shareholders' Equity at the beginning of the year}$.

FOCUS = The share of revenues derived from selling gold out of total revenues.

RESERVE (measured in troy ounces) = $[\text{Proved and Probable gold reserves (in tonnes)} \times \text{Grade (gram/tonne)} \times \text{Recovery rate}] / 31.1035 \text{ grams}$.¹ Recovery rate for a firm is assumed at 85% unless otherwise specified.² In the empirical test, to normalise the data, natural log of the quantity of reserves is used.

SIZE of a firm is measured by total assets at the end of a year. To normalise the data, natural log of total assets is used in the empirical test.

As equation (1) has a dummy dependent variable, it is estimated as a logistic model. Gujarati (1988) suggests that logistic models are suitable in estimating regression models with dichotomous dependent variables.

5.2 Sample Selection and Test Period

The sample data for this study come from the Australian gold mining industry. The gold mining firms in the sample took their lobbying positions via written submissions from December 1985 through May 1986. It is likely that the mining firms would consider their immediate and future economic prospects in taking their lobbying positions. Firms were unlikely to take lobbying positions based on past economic performance or profitability because (a) earnings prior to 1986 were not going to be taxed and (b) taking a lobbying position on the basis of revealed past wealth or financial performance would be "too obvious" to the regulators and would make the lobbying position ineffective. Hence, a three-year period beginning with 1986 is considered for empirical testing instead of a single year. For the years 1986 to 1988, mining firms listed in the Australian stock exchange with gold mining as one of their principal activities were identified from the Australian Stock Exchange (ASX) Journal of Personal Investment. This resulted in an initial sample of 57 firms.

Data for the explanatory variables were collected from the annual report file of the Australian Graduate School of Management (AGSM). However, due to inadequate disclosure of ore reserves in the annual reports, 21 firms were dropped from the sample. This resulted in a final sample of 36 firms with 86 firm-years data. Data for the

dependent variable were collected from the federal tax inquiry report on the Australian gold mining industry (Inquiry into the Taxation of Gold Mining, 1986). Of these 36 firms, 24 firms made voluntary submissions (hereafter, submission firms) and the rest 12 did not make any submission to the inquiry (hereafter, non-submission firms).

6. Results and discussion

6.1 Descriptive statistics and univariate Tests

Descriptive statistics on the independent variables and univariate tests on the hypotheses are provided in Table 1. Table 1 indicates that submission firms are more profitable than non-submission firms as indicated by return on equity (ROE). The mean (median) ROE of submission firms is .171 (.132) compared to -.036 (.032) of the non-submission firms. Similarly, submission firms have greater industry focus (FOCUS) than non-submission firms. The mean (median) industry FOCUS of submission firms is .742 (.910) compared to .595 (.828) of the non-submission firms. The submission firms are larger than non-submission firms both in terms of gold reserves and total assets. The mean (median) values of the natural logarithmic transformations of gold reserves Ln_RESERVE and total assets Ln_ASSETS of submission firms are 12.467 (12.680) and 17.885 (17.910) compared to and 11.530 (11.800) and 17.224 (16.868) of non-submission firms, respectively.

INSERT TABLE 1 HERE

Table 1 indicates that results of univariate tests on the differences in the mean and median between the submission and non-submission sub-samples are in the hypothesised direction. Using the Mann-Whitney U-test and the t-test, the differences in ROE (H1), Ln_RESERVE (H3) and Ln_ASSETS (control variable) are significant beyond the one percent level, while FOCUS (H2) is significant at the 10% level.

The overall significance of the above results may be overstated if some of the explanatory variables are correlated. Table 2 presents the bivariate correlation statistics among the independent variables. Both under parametric and non-parametric tests, Ln_RESERVE ($r = .507$, $\rho = .482$) and Ln_ASSETS ($r = .422$, $\rho = .442$) are statistically significantly correlated to ROE at .01 level (two-tailed test). Further, Ln_ASSETS and Ln_RESERVE are correlated at .01 level ($r = .536$, $\rho = .577$, two-tailed tests). These correlations are not surprising, given that large firms have greater ability of acquiring resources such as gold ore reserves and these firms are more likely to be profitable in a booming period through increased operating activities. The variable FOCUS is significantly

correlated to ROE ($\rho = .365$) and to Ln_RESERVE ($\rho = .242$) only under the non-parametric test at .01 and .05 levels, respectively.

INSERT TABLE 2 HERE

6.2 Estimation of Logistic Model

Although the gold mining firms made submission only once, running a single test on the multi-year observations of the independent variables would suffer from plausible serial correlation in the error terms. Thus, multi-variate tests were run on a single-year basis. Logit estimates of model (1) under alternative specifications for each of the three years 1986-1988 are separately reported in panels A, B, and C, of Table 3, respectively. When model (1) is estimated using all the variables (column 1 of panel A), the coefficients of the variables ROE (t-statistic = 1.7266) and Ln_RESERVE (t-statistic = 1.7960) are in the predicted direction and statistically significant at .05 level (one-tailed test). Hence, submission to the federal tax inquiry was positively related to the profitability of a firm as measured by ROE (supporting H1) and the firm's quantity of gold reserves (supporting H3). Coefficients for the other variables FOCUS and Ln_ASSETS are both in the wrong direction and insignificant suggesting that industry focus and firm size (as measured by Ln_ASSETS) cannot explain the gold mining firms' lobbying positions. With a Likelihood Ratio test statistic of 8.874 (4 degrees of freedom), the null hypothesis that all coefficients except the intercept are zero is rejected at 5%. The proportion of correct predictions, however, is 63.33%.

Due to the insignificance of the variable Ln_ASSETS, the model is re-estimated after dropping this variable and results are reported in column 2 (panel A, Table 3). Overall, the results are similar to that reported in column 1. As before, the positive coefficients of ROE (t-statistic = 1.7701) and Ln_RESERVE (t-statistic = 1.7896) are statistically significant at .05 level (one-tailed test) supporting the hypotheses H1 and H3, respectively. As before, H2 is not supported as the coefficient of the variable FOCUS is statistically insignificant and the sign of the coefficient is contrary to prediction. Now model (1) is re-estimated after dropping the variable FOCUS. In the revised estimate, coefficients of the variables ROE (t-statistic = 1.6501) and Ln_RESERVE (t-statistic = 1.6627) are statistically significant at .10 level (one-tailed test). Overall statistical significance of the explanatory variables remain the same (Likelihood Ratio test statistic = 8.0728 with 2 d.f.). Finally, results of estimating the model on the variables ROE and FOCUS show that only the coefficient of the variable ROE (t-statistic = 1.7337) has the predicted sign and is significant at .05 level (one-tailed test). The coefficient of the variable FOCUS has contrary sign and is insignificant.

In panel B of Table 3, various estimates of model (1) using the data for 1987 are reported. In the full version of the model (column 1), only the coefficient of the variable ROE (t-statistic = 1.4049) appears to be statistically significant at .10 level (one-tailed test). When the variables ROE and Ln_ASSETS are dropped, the variable Ln_RESERVE (t-statistic = 2.1251) and FOCUS (t-statistic = 1.7644) become statistically significant at .025 and .05 levels (both one-tailed tests). Thus, it appears that there is some form of multicollinearity among the independent variables. This belief of the presence of multicollinearity is strengthened when the logistic regression is run on the variables FOCUS and ROE (column 3); the variable FOCUS (t-statistic = 1.1300) loses its statistical significance while ROE (t-statistic = 1.7750) is significant at .05 level (one-tailed test). Finally, the variable ROE (t-statistic = 1.9476) is statistically significant at .05 level (one-tailed test) when it is used as the only explanatory variable in the model. Interestingly, the overall explanatory power of the model is not much reduced; Maddala R^2 drops from 34.75% (full version of the model in column 1) to 27.26%. Similarly, the percentage of correct prediction drops slightly from 83.33% (columns 2 and 3) to 76.67% (column 4).

Panel C of Table 3 reports the results of estimating model (1) under alternative specifications for the year 1988. In the full version of the model (column 1) only the variable Ln_RESERVE (t-statistic = 1.4545) is significant at .10 level (one-tailed test). Coefficients of all other variables except Ln_ASSETS are consistent with the prediction but statistically insignificant. When the model is re-estimated (column 2) after dropping the variables ROE and Ln_ASSETS, Ln_RESERVE (t-statistic = 2.3720) becomes statistically significant at .025 level (one-tailed test). When ROE and FOCUS are the only variables used in the estimation, ROE (t-statistic = 1.9906) becomes statistically significant at .05 level (one-tailed test). When ROE (t-statistic = 2.0459) is used alone in the model, its statistical significance remains the same at .05 level (column 4).

INSERT TABLE 3 HERE

In summary, results in the three panels of Table 3 consistently provide support for H1 that the gold mining firms which made submissions to the federal tax inquiry, on the average, were more profitable than the non-submission firms.

Further, the results are consistent with H3 that submission firms had larger quantities of proved and probable gold reserves than the non-submission firms. Weak support was found for H2; the variable FOCUS was statistically significant at .05 level only in one year (1987) and only under one specification. This result is not surprising given that the sample

firms were chosen from a relatively homogenous industry.

The sample firms were listed as gold mining firms in the Australian stock exchange during the test period. Given the gold mining boom in the mid-1980s, it is expected that most of the gold mining firms will have high industry focus and cross-sectional variation in industry focus is likely to be very limited.

Overall, profitability and gold reserves of the sample firms can significantly explain their lobbying positions. That is, the firms which were more profitable and had larger gold reserves than others lobbied against the removal of the tax-exempt status through their written submissions.

These findings suggest that lobbying positions of the sample firms were consistent with the adverse economic consequences of removing the tax-exempt status. Thus, findings in this paper are consistent with prior lobbying studies such as King and O'Keefe (1986), Francis (1987), Deakin (1989), Gerhardy and Wyatt (2000), and Hill, Shelton, and Stevens (2002).

Summary and conclusion

Income from gold mining in Australia remained tax-exempt for almost seven decades until 1 January 1991. In the mid- to late-1980s, the gold mining industry in Australia experienced a boom mainly due to escalated gold prices in the international market and the devaluation of Australian currency against the U.S. dollar in 1976. The industry, as a result, came under intense political scrutiny. In 1985, the Labor government questioned the legitimacy of the industry's tax-exempt status. Subsequently, a federal inquiry into the taxation of gold mining investigated the economic and social impact of the removal of tax-exempt status.

This paper provides empirical evidence on the lobbying activities of Australian gold mining firms. The lobbying positions of the sample firms were consistent with the economic effects of the proposed gold tax on these firms. Results in this paper are consistent with King and O'Keefe (1986), Francis (1987), Deakin (1989), Gerhardy and Wyatt (2000), and Hill, Shelton, and Stevens (2002). This study has implications for understanding corporate lobbying positions in relation to changes in accounting and economic regulations. Further, prior research suggests that politically-sensitive firms are likely to make accounting policy and accrual choices to mitigate their political costs. Detection of earnings management by politically-sensitive firms is likely to improve if the factors which determine cross-sectional variation in political sensitivity can be identified. This paper provides evidence that firms with greater profitability and larger gold reserves were more politically sensitive and were more likely to make submissions to the federal tax inquiry than other firms.

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Endnotes

¹ There is anecdotal evidence that Australian firms and various industry associations actively engage in lobbying. Many firms or industry associations explicitly consider lobbying as part of their objectives. For example, Environment Business Australia has an explicit objective of lobbying the government (see <http://www.environmentbusiness.com.au/corporate.htm>). Similarly, one of the stated objectives of Independent Contractors of Australia is to undertake public and private lobbying (see <http://www.contractworld.com.au/pages/ica-whatwho.shtml>). The corporate profile of Zip World, one of the ten national internet service providers in Australia, states, 'Zip World is an active member of the Australian internet industry lobbying the government... This increased lobbying power ensures that any industry regulation won't be passed on to internet customers in the form of higher charges' (see <http://www.zip.com.au/corporate/about/index.shtml>).

² In this paper, the terms political sensitivity and political costs are used inter-changeably.

³ The term 'gold tax' was coined by the Australian news media in the 1980s. It has been widely used by politicians, news media, business analysts, and other interest groups to refer to the introduction of income tax on gold mining by removing the tax-exempt status of the gold mining industry. I have used the term here in the same spirit.

⁴ 1 troy ounce = 31.1035 grams.

⁵ Gold recovery rates provided by many firms in their annual reports were well above 85%. This is used as a conservative estimate of the average recovery rate. Indirect communication with industry experts also suggests that 85% is a conservative estimate of the average recovery rate of gold in Australia in the mid- to late-1980s.

Appendices

Table 1. Descriptive statistics of the explanatory variables and univariate tests between the submission firms and non-submission firms

Hypotheses and control variable	Variable	Descriptive statistics		One-tailed <i>p</i> -values of univariate tests	
		(1) Submission firms	(2) Non-submission firms	Mann-Whitney <i>U</i> -test	<i>t</i> -test
		Mean Median Std. Dev.	Mean Median Std. Dev.		
1. (1) > (2)	<i>ROE</i>	.171 .132 .172	-.036 .032 .272	.000	.000
2. (1) > (2)	<i>FOCUS</i>	.742 .910 .324	.595 .828 .429	.052	.034
3. (1) > (2)	<i>Ln_RESERVE</i>	12.467 12.680 .976	11.530 11.800 1.100	.000	.000
Control variable: (1) > (2)	<i>Ln_ASSETS</i>	17.885 17.910 1.158	17.224 16.868 1.020	.003	.005

ROE = Return on Equity = Net income after tax / Shareholders Equity at the beginning of the year. *FOCUS* = Revenues from gold mining / Total Revenues. *Ln_RESERVE* is the natural logarithmic of Gold Reserve. Gold Reserve (troy ounces) = [Proved and Probable gold reserves (in tonnes) X Grade (gram/tonne) X Recovery rate]/31.1035 grams. Recovery rate for a firm is assumed at 85% unless otherwise specified. *Ln_ASSETS* = Natural logarithmic of total assets.

Table 2. Bi-variate Correlation Matrix on the Independent Variables

Pearson's (Spearman's rank) correlation statistics are above (below) the diagonal. N= 86 firm-years

	<i>ROE</i>	<i>FOCUS</i>	<i>Ln_RESERVE</i>	<i>Ln_ASSETS</i>
<i>ROE</i>	1.000	.175 (.106)	.507** (.000)	.422** (.000)
<i>FOCUS</i>	.365** (.001)	1.000	.099 (.366)	.152 (.162)
<i>Ln_RESERVE</i>	.482** (.000)	.242* (.025)	1.000	.536** (.000)
<i>Ln_ASSETS</i>	.442** (.000)	.196 (.070)	.577** (.000)	1.000

** Correlation is significant at the .01 level (two-tailed). * Correlation is significant at the .05 level (two-tailed). Variable definitions are as in Table 1.

Table 3. Logit Analysis of Model (1) Under Alternative Specifications on a Sample of Australian Gold Mining Firms

$$\text{Model (1): } \text{SUBMIT}_i = \alpha + \beta_1 \text{RESERVE}_i + \beta_2 \text{FOCUS}_i + \beta_3 \text{PROFITABILITY}_i + \beta_4 \text{SIZE}_i + \xi_i$$

The estimates of the coefficients are followed by *t*-statistics in the parentheses.

Panel A: Year 1986

Variable	Predicted sign	Column 1	Column 2	Column 3	Column 4
Intercept	?	-12.627 (-1.2789)	-13.765 (-1.7935) ^b	-11.794 (-1.6821) ^a	-.0650 (-.0979)
<i>ROE</i>	+	10.431 (1.7266) ^b	10.114 (1.7701) ^b	8.1586 (1.6501) ^a	8.2132 (1.7337) ^b
<i>FOCUS</i>	+	-1.0116 (-.83355)	-1.0274 (-.8496)		-.2534 (-.2447)
<i>Ln_RESERVE</i>	+	1.2026 (1.7960) ^b	1.1856 (1.7896) ^b	.9828 (1.6627) ^a	
<i>Ln_ASSETS</i>	+	-.0803 (-.1793)			
Likelihood Ratio Test (degrees of freedom)		8.874 (4)	8.842 (3)	8.0728 (2)	4.9747 (2)
Maddala R ²		.2561	.2553	.2359	.1528
Percentage of correct predictions		63.33%	63.33%	66.67%	70.00%
Yes = 1 (Total Observations)		18 (30)	18 (30)	18(30)	18(30)

Panel B: Year 1987

Variable	Predicted sign	Column 1	Column 2	Column 3	Column 4
Intercept	?	-12.266 (-1.2791)	-12.111 (-2.1511) ^c	-1.4686 (-1.1734)	-.4017 (-.5722)
ROE	+	8.4948 (1.4049) ^a		10.583 (1.7750) ^b	11.508 (1.9476) ^b
FOCUS	+	1.7005 (1.0591)	2.5588 (1.7644) ^b	1.7111 (1.1300)	
Ln_RESERVE	+	.4710 (.8539)	.94625 (2.1251) ^c		
Ln_ASSETS	+	.3084 (.5283)			
Likelihood Ratio Test (degrees of freedom)		12.8105 (4)	8.2648 (2)	10.8738 (2)	9.5499 (1)
Maddala R ²		.3475	.2408	.3040	.2726
Percentage of correct predictions		80%	83.33%	83.33%	76.67%
Yes = 1 (Total Observations)	21(30)	21(30)	21(30)	21(30)	21(30)

Panel C: Year 1988

Variable	Predicted sign	Column 1	Column 2	Column 3	Column 4
Intercept	?	-11.406 (-1.0256)	-13.832 (-2.3888) ^c	-.1576 (-.1435)	.3320 (.7219)
ROE	+	.85643 (.34057)		3.7844 (1.9906) ^b	3.9286 (2.0459) ^b
FOCUS	+	1.5203 (.93277)	1.6897 (1.1001)	.6536 (.4920)	
Ln_RESERVE	+	.92862 (1.4545) ^a	1.0516 (2.3720) ^c		
Ln_ASSETS	+	-.0458 (-.0805)			
Maddala R ²		.2884	.2851	.2162	.2088
Likelihood Ratio Test (degrees of freedom)		8.8452 (4)	8.7273 (2)	6.3325 (2)	6.0887 (1)
Percentage of correct predictions		80.77%	80.77%	80.77%	73.07%
Yes = 1 (Total Observations)		16(26)	16(26)	16(26)	16(26)

^{a, b, c} indicate that the *t*-statistics are statistically significant at .10, .05 and .01 level, respectively (one-tailed test).

$SUBMIT_i$ is a dummy variable which takes a value of 1 if a firm made a submission to the federal tax inquiry in 1986 and zero otherwise.

PROFITABILITY is measured by return on equity (ROE). $ROE = \text{Net income after tax} / \text{Shareholders Equity}$ at the beginning of the year.

$FOCUS = \text{Revenues from gold mining} / \text{Total Revenues}$

$Ln_RESERVE = \text{Natural log of the quantity of recoverable gold held by a firm at the end of an accounting year, expressed in troy ounces. Recoverable gold (troy ounces) = [Proved and Probable gold reserves (in tonnes) X Grade (gram/tonne) X Recovery rate]} / 31.1035 \text{ grams}$

Recovery rate for a firm is assumed to be at 85% unless otherwise specified.

SIZE of a firm is measured by total assets at the end a year. $Ln_ASSETS = \text{Natural log of total assets at the end of a year}$