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Keywords

presidential puzzle, political cycle, risk and return, election surprises

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Political cycles and risk and return in the Australian stock market, Menzies to Howard

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Abstract

This paper examines the presence of a political cycle in Australian daily stock returns over the forty-seven years from 6 January 1958 to 30 December 2005. The period selected includes nineteen federal elections, twenty-five ministries and five terms of Liberal-National or Labor government. The political cycle is defined in terms of the party in power, the time since the last election and election information effects. The market variables are defined in terms of nominal and real returns and nominal and real return volatility. The results indicate returns are highest during the ministries of Holt-McEwen and Hawke and lowest during Whitlam and Fraser, while risk is highest during Whitlam and Hawke and lowest during Menzies and Holt-McEwen. However, regression analysis shows that Liberal-National and Labor governments more generally differ in the volatility of returns where political cycle-sourced return volatility increases at a decreasing rate with the time in power. Such risk differences potentially arise from the different parties' economic and social policies, uncertainty among investors about these policies, or doubt among voters concerning future election outcomes.

JEL classification: G14; C12
Keywords: presidential puzzle; political cycle; risk and return; election surprises

1 Introduction

Anecdotal evidence abounds of the link between securities markets and politics. In the financial media, most economic and social policy is analysed concerning possible market reactions, and industry and consumer groups comment on anticipated and hoped for changes in policy. At election time, politicians are frequently accused of pork-barrelling, with firms and investors alike anticipating the heady mix of tax breaks, consumption and production subsidies and fiscal and monetary stimulation that accompanies changes in the political party in power. At the same time, parties are routinely pigeon-holed as pro- or anti-business and pro- or anti-investor, reflected in some way in the flow and source of political donations.

At least three empirical questions arise from such observations. First, does market behaviour differ when governments are drawn from different political parties? That is, is stated ideology reflected in actual policy, and does this systematically vary in its influence on market participants. Second, is this political influence constant or changing with the ebb and flow of mandated terms in office and efforts to secure re-election? Put differently, is ideology

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or any form implemented in a different way in business and investor policy at the beginning of terms of an office that at the end? Finally, if the differences in markets are taken as given, do markets react suddenly with the announcement of elections results, or are expectations developed more gradually with the benefit of political comment and opinion polls?

The purpose of this paper is to add to this intriguing body of work the results of an analysis of the Australian federal political cycle and its impact on the Australian equity market. To the author's knowledge this is the first work of its kind in Australia. The paper itself is divided into five main areas. Section 2 briefly reviews the relevant literature. Section 3 provides a snapshot of recent Australian political history. Section 4 explains the empirical methodology and data collection employed in the analysis. Section 5 presents the results. The paper ends with a brief conclusion.

2. Literature review

The analysis of political cycles in stock market returns has been almost exclusively conducted in the United States, and therein the context of presidential elections. Part is generic, to the extent that institutional rigidities in the political cycle – mandated terms in office for example – impose structure upon market returns. Herbst and Slinkman (1984), for example, examined the period from 1926 to 1977 and found a 48-month cycle during which returns were higher than average, peaking in November during presidential elections. Likewise, Huang (1985) used data from 1832 to 1979 and discovered that stock returns were systematically higher in the last half of a political term than in the first, as did Hensel and Ziemba (1995), though with small and large-caps only. On this basis, Hensel and Ziemba (1995) suggested that "…these findings are consistent with the hypothesis that political re-election campaigns create policies that stimulate the economy and are positive for stock returns".

But the larger part of this research focuses on differences in political ideology and the differential impact of the political cycle on stock returns. Herein the focus of interest is on the apparent preference of the market for right-of-centre presidents (i.e. Republicans). Niederhoffer et al. (1970), for instance, showed that US stock market movements around election dates were consistent with a pro-Republican bias on Wall Street, though evidence was not forthcoming on any longer-term relationship between Republican presidents and stock returns. Similarly, Riley and Luksetich (1980) concluded that the market prefers

Republicans, and the market tends to rise following presidential elections. Dobson and Dufrene (1993) extended this analysis outside of the United States, concluding that in equity market terms US presidential elections invoke significant structural changes, with international markets becoming more highly correlated. Other studies concerning the posited positive market effect of Republican presidencies have been undertaken by Allvine and O'Neil (1980), Hobbs and Riley (1984), Foerster and Schmitz (1997), Johnson and Chittenden (1999), Booth and Booth (2003) and Bohl and Gottschalk (2005), while Nordhaus (1975), MacCrae (1977), McCallum (1978), Hibbs (1977), Beck (1982a; 1982b), Havrilesky (1987), Alesina and Sachs (1988) and Haynes (1989) address business cycles more broadly.

Most recently, Santa-Clara and Valkanov (2003) have re-examined the 'presidential puzzle' sometimes arising in this research: that is, real returns are higher under Democratic presidents, contradicting the conventional wisdom that Republicans are good for markets in a manner unexplained by considerations of risk. Using data since 1927, Santa-Clara and Valkanov (2003) found average excess returns for value-weighted market indexes over three-month Treasury bills of about 2 percent under Republicans and 11 percent under Democrats. Further, a decomposition of returns revealed that the difference was due to real market returns being 5 percent higher under Democrats and real interest rates almost 4 percent lower. Responding to the question of whether the difference in average returns was due to a difference in expected (a Democratic risk premium) or unexpected (surprises in the economic policies of the party in the presidency) returns, Santa-Clara and Valkanov (2003) concluded that presidential parties capture variations in returns that are largely uncorrelated to what is explained by business cycle fluctuations, and hence must be associated with systematic differences in political policies.

Outside of the United States, the United Kingdom and New Zealand are the only other national contexts known for the analysis of political cycles in stock returns. These are interesting in that while these have a two-party system in common with the United States (Labour and Conservative (Tory), Labour and Nationals, respectively), unlike the United States, the prime minister (leader of the Executive) is always controls the dominant party in the elected house (House of Commons, House of Representatives). For this reason, and as in Australia, there is a clearer connection between the political ideology of the elected party and the implementation of economic policy. In New Zealand, Cahan et al. (2005) concluded that the presidential puzzle was reversed, and that New Zealand market returns were lower under

left-leaning Labour governments than under National party governments. This lay at odds with parallel analysis that suggested that market risk was actually higher under the former.

In the United Kingdom, Manning (1989) showed that British Telecom shares, though not the market as a whole, reacted to opinion polls surrounding the 1987 General Election in the face of impending nationalisation, while Peel and Pope (1983), Gwilym and Buckle (1984) and Thompson and Ioannidis (1987) examined the connection between the stock market and business support for Tory (Conservative) governments. But most recently, Hudson et al. (1998) found that while short-term price movements reacted to opinion polls in the run-up to and including elections, there was no statistically significant evidence of a difference in nominal or real returns between Tory and Labour governments.

3. Recent Australian political history

Two groups dominate the Australian political spectrum at the federal level. The first is a conservative coalition of parties made up of the Liberal Party and the Nationals (including the Country Liberal Party). Collectively, these are known as the Coalition. The second comprises a single social democratic party, the Australian Labor Party. There have been fifty-nine ministries since Federation in 1901, with the Coalition and its antecedents accounting for thirty-eight (64 percent) and the Labor Party twenty-one (36 percent).

Originally formed by the merger of the Protectionist and Free Trade parties in 1910, the Liberal Party has undergone several reformations – including as the Nationalist Party in the late 1910s and 1920s and the United Australian Party in the 1930s and early 1940s – culminating in its present-day incarnation founded by Sir Robert Menzies in 1944. The Liberal Party is regarded as a centre-right party and broadly represents the interests of business, the suburban middle classes and urbanised regions. Since the October 2004 election, the Liberals account for seventy-four of the one hundred and fifty House of Representatives seats (47 percent), and from July 2005, thirty-two of the seventy-six seats in the Senate (42 percent).

The Nationals are a conservative party that traditionally represent rural and regional interests. Originally known as the Country Party, it has held seats in the federal parliament since 1919. While the party has witnessed the steady erosion of its rural support base in recent years, it still holds the balance of power for the Coalition with twelve seats in the House of Representatives (16 percent) and six in the Senate (8 percent). It is joined by the Country

Liberal Party, which is the representative of both parties in the Northern Territory, holding a single seat in both House of Representatives and the Senate.

The opposing party active at the federal level is the Australian Labor Party, a centre-left party founded by the trade union movement in 1890 [by providing for the direct affiliation of trade unions, the Australian Labor Party is most like labour parties in the UK and New Zealand, and less like progressive parties such as the Democrats in the United States (ALP 2006)]. Historically, support for either the Coalition or the Labor Party was viewed as class based, with the middle class supporting the Coalition and the working class supporting Labor. In recent years, this has been a less important factor: in the 1970s and 1980s Labor gained a significant bloc of middle class support and the Coalition enjoyed some working class support. Indeed, part of the current electoral success of the Coalition is attributed to its appeal to disaffected working class Labor voters. The Labor Party has endured a number of debilitating splits in its long history, most notably with Prime Minister Billy Hughes and the conscription debate during WWI leading to the creation of Nationalist Labor in 1917, and the formation of the anti-communist Democratic Labor Party in 1955. It currently accounts for sixty seats in the House of Representatives (40 percent) and twenty-eight in the Senate (37 percent).

Parties other than these have enjoyed limited success in Australia. These currently include the Australian Greens, a left-wing environmental party, and the Australian Democrats, middle-class centrists – both with four seats in the Senate – and Family First, a Christian-influenced party appealing to social conservatives with one Senate seat. In the past, the minor parties have also included the centrist Democratic Labor Party from the mid-1950s until the mid-1970s and the rightist One Nation party during the 1990s. The proportional representation system often allows minor parties to win seats in the Senate and, on occasion, the balance of power, but they have usually been unable to win seats in the House of Representatives given its electorate-based preferential voting system, along with the nationwide dominance and broad based appeal of the Coalition and Labor parties.

4. Research method and data

Table 1 provides details of the nineteen federal elections held since 6 January 1958. All information is drawn from the Australian Electoral Commission (2006a; 2006b). Five distinct political periods are noted, with the Coalition in power from 1958 to 1972 (five prime

ministers and five winning elections), 1975 to 1983 (one prime minister and three elections) and 1996 to 2005 (one prime minister and four elections) and the Labor Party in power from 1972 to 1974 (one prime minister and two winning elections) and again from 1983 to 1996 (two prime ministers and five elections). This information is used to define the political cycle variables in this analysis. The first political variable specified in this analysis is a dummy variable that takes a value of one on days the Coalition is in power and zero otherwise (C_t) while the second takes a value of one if the Labor Party is in power and zero otherwise (L_t).

Within this broad division, different samples are defined representing the twenty-five prime ministerial terms. In most cases, the starting and ending dates for these terms are defined by two of the nineteen elections during the period (with allowance for a transition period of a few days) with the following exceptions: Menzies was re-elected out-of-sample in 1955 and resigned in 1966, replaced by Holt; Holt disappeared while swimming, presumed dead, in 1967 and replaced by McEwen; Gorton was overturned in a party room vote in 1971 and replaced by McMahon; Whitlam was sacked by Governor-General Sir John Kerr in 1975 with Fraser taking a caretaker role until an election was held one month later; Hawke was overturned by Keating in a party room vote in 1991; and Howard is the currently serving prime minister. The separate prime ministerial terms are then aggregated by prime minister with Menzies, Hawke and Howard serving four terms; Holt, Gorton, Whitlam and Keating two terms; and McEwen and McMahon one term. Because McEwen governed for just twenty-three days and McMahon never successfully contested an election, they are included with Holt and Gorton, respectively.

The next two political variables are included to take account of whether the return on equities varies across the term in office. Rather than using dummy variables to identify whether a day falls in, say, the first or second half of the period in office as in Hudson et al. (1998), a continuous variable is specified as a simple linear trend (T_t) taking a value of one on the first trading day in office, two on the second day, and so on. This variable is reset at the beginning of the next government's term in office. The square of this variable (S_t) is also included to take account of any non-linear relationships between the political cycle and market returns. Two additional dummy variables are defined to take account of election effects on market returns. The first of these takes a value of one for each day of the trading week (Monday to Friday) before the election date (Saturday) (B_t), and zero otherwise, while

the second takes a value of one for each day of the trading week following the election (A_t) and zero otherwise.

The market data employed in the study are closing prices from the Australian Stock Exchange (ASX) over the period Monday 6 January 1958 to Friday 30 December 2005. This sample encompasses 12,067 trading days and represents the longest period for which daily data is available. The capitalization-weighted All Ordinaries Price Index is used. The index includes the top ASX-listed stocks by capitalization, covering about 92 percent of domestic companies by market value. To be included in the index, stocks must have an aggregate market value of at least 0.02 percent of all domestic equities, and maintain an average turnover in excess of 0.5 percent of quoted shares each month. The long-term index includes base recalculations by Global Financial Data (2006).

A series of daily nominal returns are calculated where $R_t^n = 100\ln(P_t / P_{t-1})$ where P_t is the index level on day t. The daily real return is also calculated $R_t^r = 100\ln(P_t / P_{t-1}.i_t)$ where i_t is the daily rate of increase in the consumer price index as defined by the Australian Bureau of Statistics' (2006) retail/consumer price index (1945 = 100) and all other variables are as previously defined. Finally, a simple measure of the daily volatility of both the nominal and real return series is calculated using the standard deviation of rolling one-month period returns. Santa-Clara and Valkanov (2003) suggest that differences in risk may arise across presidential terms (Democrats and Republicans) because of differences in economic policies, or from varying levels of uncertainty among investors about these policies. In this manner, "…it would be reasonable to argue that it [higher realised returns] should command a risk premium to compensate investors for the greater risks incurred in those periods" (Santa-Clara and Valkanov 2003: 1867). The method used in this analysis to calculate volatility is identical to Santa-Clara and Valkanov (2003). As an alternative, Cahan et al. (2005) estimated return volatility with the absolute value of returns.

Two approaches are used to test the political cycle hypotheses. The first involves a descriptive analysis of the mean daily returns and tests of equality of means using parametric analysis. As a rule, the mean return for Coalition governments is expected to be higher than the mean return for Labor governments. Further, it is hypothesised that returns one week before and after elections may be higher or lower than returns during the same political term, but the direction may be dependent upon whether the election comprises a shock. Santa-Clara and Valkanov (2003: 1863), for example, argued that "…if the observed difference in returns

is due to a difference in expected returns, the change in the level of the market at the time that the information is revealed should be quite large".

The second approach used is a regression-based approach where the 12,067 daily nominal and real returns are regressed separately against the political cycle variables:

$$R_t = \beta_1 C_t + \beta_2 L_t + \beta_3 T_t + \beta_4 S_t + \beta_5 B_t + \beta_6 A_t + \varepsilon_t \quad (1)$$

where R_t is the nominal or real Monday to Friday market return at time t, C_t is a dummy variable that equals one for a Coalition government and zero otherwise, L_t is a dummy variable that equals one for a Labor government and zero otherwise, T_t and St are political cycle time trends, B_t and A_t are election effects, β_i are coefficients to be estimated and ε is the error term. Following the hypotheses presented, the sign on the coefficient for C_t is expected to be positive and larger in magnitude than Lt, the sign on T_t is expected to be negative. The hypothesised sign of S_t may be positive or negative, depending upon whether the political cycle trend in returns and volatility increases at an increasing or decreasing rate. Two additional regressions are also specified for risk where:

$$V_t = \beta_1 C_t + \beta_2 L_t + \beta_3 T_t + \beta_4 S_t + \beta_5 B_t + \beta_6 A_t + \varepsilon_t \quad (2)$$

where V_t is the nominal or real return volatility and all other variables are as previously defined. The first null hypothesis tested is:

$$H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0 \quad (3)$$

against the alternative that at least some $\beta \neq 0$. The second null hypothesis tested is:

$$H_0 : \beta_1 = \beta_2 \quad (4)$$

against the alternative $H_1 : \beta_1 \neq \beta_2$. If the first null hypothesis is rejected, then the market returns and/or risk exhibit a form of political cycle, related to either the party in power and/or the tenure of power and/or election effects. If the second is rejected, then the parties have a differential impact upon market returns and/or risk.

5. Empirical results

The daily market returns and return volatility are plotted in Figure 1. Table 2 presents the summary of descriptive statistics for the daily nominal and real returns. These are categorised according to the separate ministries over the sample period: namely, Menzies, Holt-McEwen, Gorton-McMahon, Whitlam, Fraser, Hawke, Keating and Howard. Liberal-National refers to

the combined Menzies, Holt-McEwen, Gorton-McMahon, Fraser and Howard governments. As shown in Table 2, mean nominal returns are highest during Holt-McEwen (0.0651) and Hawke (0.0509) and lowest during (Whitlam (-0.0556) and Menzies (0.0245), while real returns are highest during Holt-McEwen (0.0562) and Hawke (0.0323) and lowest during Whitlam (-0.0889) and Fraser (0.0066). The nominal and real volatility of returns (as measured by standard deviation) is highest during Whitlam (1.1632 to 1.1629) and Hawke (1.1376 to 1.1375) and lowest during Menzies (0.4553 to 0.4556) and Holt-McEwen (0.5308 to 0.5307).

By and large, the distributional properties of the nominal returns series during these ministries appear non-normal. Given that the sampling distribution of skewness is normal with mean 0 and standard deviation of $\sqrt{6/T}$ where T is the sample size, then returns during Menzies (-1.320), Gorton-McMahon (-0.145), Hawke (-7.994) and Howard (-0.680) are significantly negatively skewed, indicating the greater likelihood of observations lying below the mean, while returns during Holt-McEwen (0.240), Whitlam (0.257) and Fraser (0.322) are significantly positively skewed. The kurtosis or degree of excess across all returns is mostly large, indicating leptokurtic distributions with many extreme observations: Menzies (19.506), Holt-McEwen (5.402), Gorton-McMahon (4.519), Whitlam (7.035), Fraser (4.973), Hawke (190.08) and Howard (8.278). Kurtosis during Keating (0.597) is less than three, indicating a platykurtic or thin-tailed distribution with few extreme observations. Given the sampling distribution of kurtosis is normal with mean 0 and standard deviation of $\sqrt{24/T}$ where T is the sample size, then all estimates are once again statistically significant at any conventional level.

Figure 2 graphs the annualised nominal return for each of the twenty-five prime ministerial terms since 1958. Clearly, there is again much variation in the annual returns experienced under the various prime ministers, ranging between -11 percent for Whitlam II and +53 percent for McEwen (albeit with a very short sample period). Augmented Dickey-Fuller and Phillips-Peron tests (with allowance for autocorrelation) (not shown) for the nominal and real return and nominal and real return volatility series all reject the null hypothesises of a unit root at the .01 level and we conclude that the return series are stationary and suitable for regression-based analysis.

5.1 Parametric tests of mean return differences

At first impression, there appears to be some evidence of a political cycle effect in the Australian stock market. Certainly, returns appear to vary across the various prime ministries, whether aggregated by prime minister (Table 2) or by individual ministry (Figure 2). Returns and risk also appear to differ by political affiliation. As shown in Table 2, the mean daily nominal (real) return for Liberal-National governments is 0.0307 (0.0187) compared to 0.0269 (0.0089) for Labor governments. Risk appears higher during Labor governments with a nominal (real) standard deviation of returns of 1.0542 (1.0543) for Labor governments compared to 0.7115 (0.7117) for Liberal-national governments. However, while Levene's test of equality of variances is rejected for nominal (statistic = 225.293, *p*-value = 0.0000) and real (statistic = 224.293, *p*-value = 0.0000) returns, indicating unequal risk, it fails to be reject the null hypothesis of the equality of means (columns 8 and 9 in Table 2) assuming unequal variances. This indicates that risk (standard deviation) is significantly higher for Labor governments in Australia, but there is no significant difference in returns between Liberal-National and Labor governments in the last forty-seven years. However, returns are significantly lower during the (Labor) prime ministry of Whitlam (1972-1975).

Table 2 also presents the means and tests of equality of means for the trading week before and after the election during each ministry. The purpose is to test for the presence of an election effect. However, only during Keating are returns (both nominal and real) significantly higher in the week before the election (columns 12 and 13) and only during Whitlam are returns significantly lower in the week following an election (columns 16 and 17). The latter appears consistent with the (negative) information effects associated with Whitlam outside of the immediate election period. With the former, Keating contested just two elections: the first (winning) election in 1993 ("the sweetest victory of all"), was a surprise with a Coalition victory widely predicted; the second (losing) election was associated with the highest Liberal-National two-party preferred vote since 1977. In both cases, there was a general perception of a change in government with the defeat of a deeply unpopular (at least from the business perspective) incumbent.

5.2 Regression-based analysis of the political cycle and election effects

The estimated coefficients and standard errors of the parameters detailed in (1) and (2) are presented in Table 3. Four separate regressions with four different regressands are included:

nominal returns and nominal return volatility, real returns and real return volatility. The regressors for the four regressions are common. The independent variables are dummy variables for Liberal-National and Labor governments, a political term trend and its square, and dummy variables for the week before and after a federal election. Breusch-Godfrey Lagrange multiplier and White's heteroskedasticity tests are initially used to test for higher-order serial correlation and heteroskedasticity in the least squares residuals, respectively. The null hypothesis of no serial correlation is rejected in all cases and we may conclude the presence of higher-order serial correlation in the residuals. The null hypothesis of no heteroskedasticity in the least squares residuals is also rejected. All standard errors and *p*-values in Table 3 incorporate Newey-West corrections for heteroskedasticity and autocorrelation of unknown form.

Once again, the signs on the estimated coefficients initially appear to offer some support for the posited influence of political cycles on market returns. In terms of returns, the coefficient on Liberal-National is always positive and higher than Labor. However, only for nominal returns are the estimated coefficients both significantly different from zero; with real returns, only the coefficient for Liberal-National is significant. But in either case, the Wald tests (column 12) fail to reject the null hypotheses that the coefficients are equal. The trend and the trend square term and the before and after election terms offer fleeting support for a political cycle and election effect in that their coefficients are of the hypothesised sign, but in no case are they significant. That said, the null hypotheses of the joint insignificance of the coefficients for both return regressions are rejected (column 11) and we confirm that the political cycle and effect variables jointly influence mean returns.

However, the regressions for nominal and real return volatility (risk) present quite different results. As before, there is no evidence of a market effect immediately before or after an election: the information content of elections themselves appears limited. But return volatility is always significantly higher for Labor governments than Liberal-National governments, by about a quarter of one percent on any day. This is a similar result to Cahan et al. (2005) who also found that market risk was higher under the left-leaning Labour government in New Zealand. At the same time, return volatility is seen to increase, though at a decreasing rate, over the time in office. The magnitude of the increase in return volatility is very small, however, increasing by only about one-fifth of a percent during the typical parliamentary term of three years. Importantly, this increase in volatility with the political term in office is

common to both Liberal-National and Labor governments. As before, the null hypothesis of the joint insignificance of the coefficients is rejected and we may conclude that the political cycle jointly influences return volatility (risk) in the Australian stock market.

6. Concluding remarks

The present study employs parametric analysis to test for a political cycle in the Australian stock market. A comparison of mean returns provides some empirical evidence to support the conjecture that returns depend upon the government in power. There is limited support for an election effect where returns are systematically higher or lower in the period leading up to ot immediately following an election. Any apparent differences are lessened when returns are expressed in real rather than nominal terms. Similar results are obtained with a regression-based analysis.

However, return volatility is significantly higher under Labor governments than Liberal-National governments. This is problematic in that with any difference in the riskiness of the market across political parties, it is reasonable to argue that the market should command a risk premium to compensate investors for the greater risks incurred. Certainly, abundant evidence exists elsewhere of a positive relation between the expected risk premium and the predictable level of volatility. Why then do investors appear to require no such compensation under Labor governments in Australia?

One possibility is that a large and persistent difference in risk unmatched in return cannot exist in an *efficient* market, but can in an *inefficient* one. Investors may perceive the Labor Party in power as a noisy signal of economic and social policy. Given the relatively small number of Labor ministries during the sample, investors may never really systematically understand the influence on stock prices. And in many cases, past experience offers little guidance. For example, compare the radical social non-market reforms of Whitlam with the pro-market deregulation and microeconomic reform undertaken during the Hawke-Keating period. In this general setting, stock volatility reflects diffuse and easily changed beliefs about future political behavior, but on balance, these views are never systematically ‘bad’ or ‘good’ over extended periods of time.

Another possibility follows suggestions by Beaulieu (2005) that investors may not simply require a premium for domestic political risk. This suggests the presence of some form of diversification on the part of domestic investors or the exercise of real options by businesses.

For example, firms may bring forward or delay investment projects given current policies: only a marginal net effect on future expected cash differs. This may in be aided, in part, by the fact that political horizons are short and investment horizons can be long.

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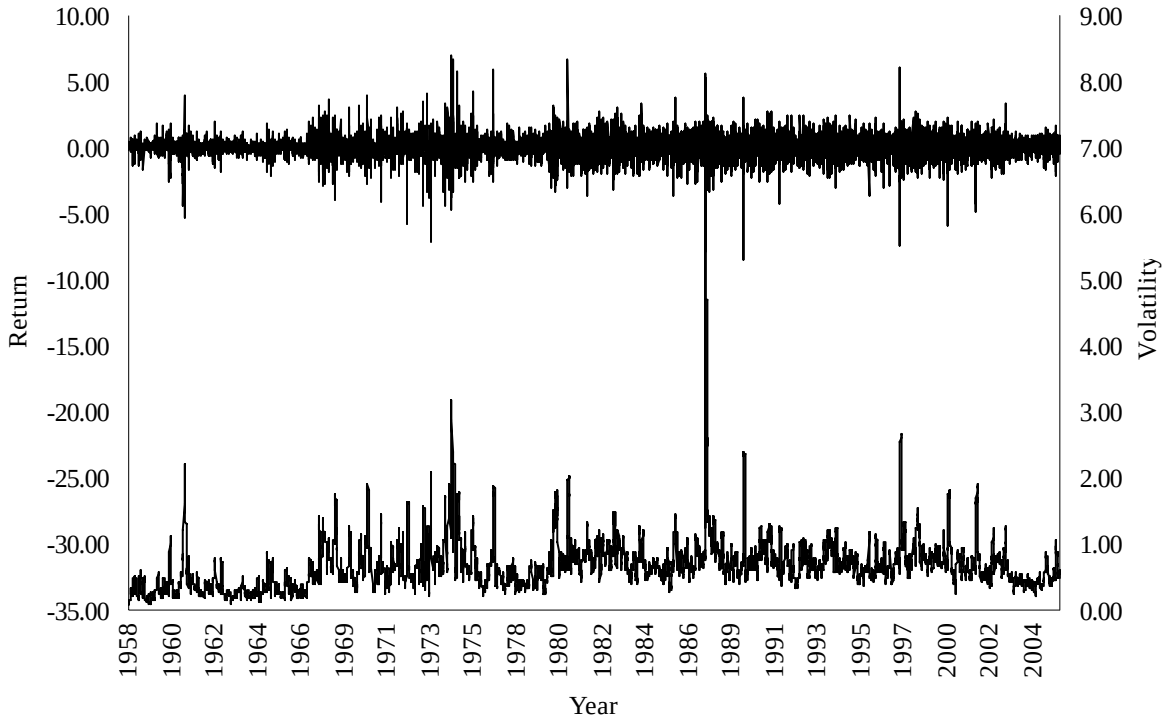
Table 1
Australian federal elections, governments, prime ministers and leaders of the opposition, 1958-2005

Election date	Turnout	Vote	Elected party or coalition	Prime Minister	Start of term	End of term	Opposition party	Opposition leader	Start of term	End of term
22 Nov 1958	95.44	54.10	Liberal–Country Party				Australian Labor Party	Evatt, Herbert	20 Jun 1951	9 Feb 1960
9 Dec 1961	95.22	49.50		Menzies, Robert	19 Dec 1949	26 Jan 1966				
30 Nov 1963	95.71	52.60						Calwell, Arthur	7 Mar 1960	8 Feb 1967
26 Nov 1966	95.13	56.90		Holt, Harold	26 Jan 1966	19 Dec 1967				
				McEwen, John	19 Dec 1967	10 Jan 1968				
25 Oct 1969	94.96	49.80		Gorton, John	10 Jan 1968	10 Mar 1971		Whitlam, Gough	8 Feb 1967	5 Dec 1972
				McMahon, William	10 Mar 1971	5 Dec 1972				
2 Dec 1972	95.38	47.30	Australian Labor Party	Whitlam, Gough	5 Dec 1972	11 Nov 1975	Liberal–Country Party	Snedden, William	20 Dec 1972	21 Mar 1975
18 May 1974	95.40	48.30						Fraser, Malcolm	21 Mar 1975	11 Nov 1975
13 Dec 1975	95.40	55.70	Liberal–Country Party	Fraser, Malcolm	11 Nov 1975	11 Mar 1983	Australian Labor Party	Whitlam, Gough	27 Jan 1976	22 Dec 1977
10 Dec 1977	95.08	54.60						Hayden, William	22 Dec 1977	3 Feb 1983
18 Oct 1980	94.35	50.40						Hawke, Robert	3 Feb 1983	11 Mar 1983
5 Mar 1983	94.64	46.77	Australian Labor Party	Hawke, Robert	11 Mar 1983	20 Dec 1991	Liberal–Country Party	Peacock, Andrew	11 Mar 1983	5 Sep 1985
1 Dec 1984	94.17	48.23								
11 Jul 1987	93.84	49.17						Howard, John	5 Sep 1985	9 May 1989
24 Mar 1990	95.32	50.10						Peacock, Andrew	9 May 1989	3 Apr 1990
								Hewson, John	3 Apr 1990	23 May 1994
13 Mar 1993	95.75	48.56		Keating, Paul	20 Dec 1991	11 Mar 1996		Downer, Alexander	23 May 1994	30 Jan 1995
								Howard, John	30 Jan 1995	11 Mar 1996
2 Mar 1996	95.77	53.63	Liberal–National Party of Australia	Howard, John	11 Mar 1996	–	Australian Labor Party	Beazley, Kim	19 Mar 1996	22 Nov 2001
3 Oct 1998	94.99	49.02								
10 Nov 2001	94.85	50.95						Crean, Simon	22 Nov 2001	2 Dec 2003
								Latham, Mark	2 Dec 2003	18 Jan 2005
9 Oct 2004	94.32	52.74	Liberal–Nationals					Beazley, Kim	28 Jan 2005	–

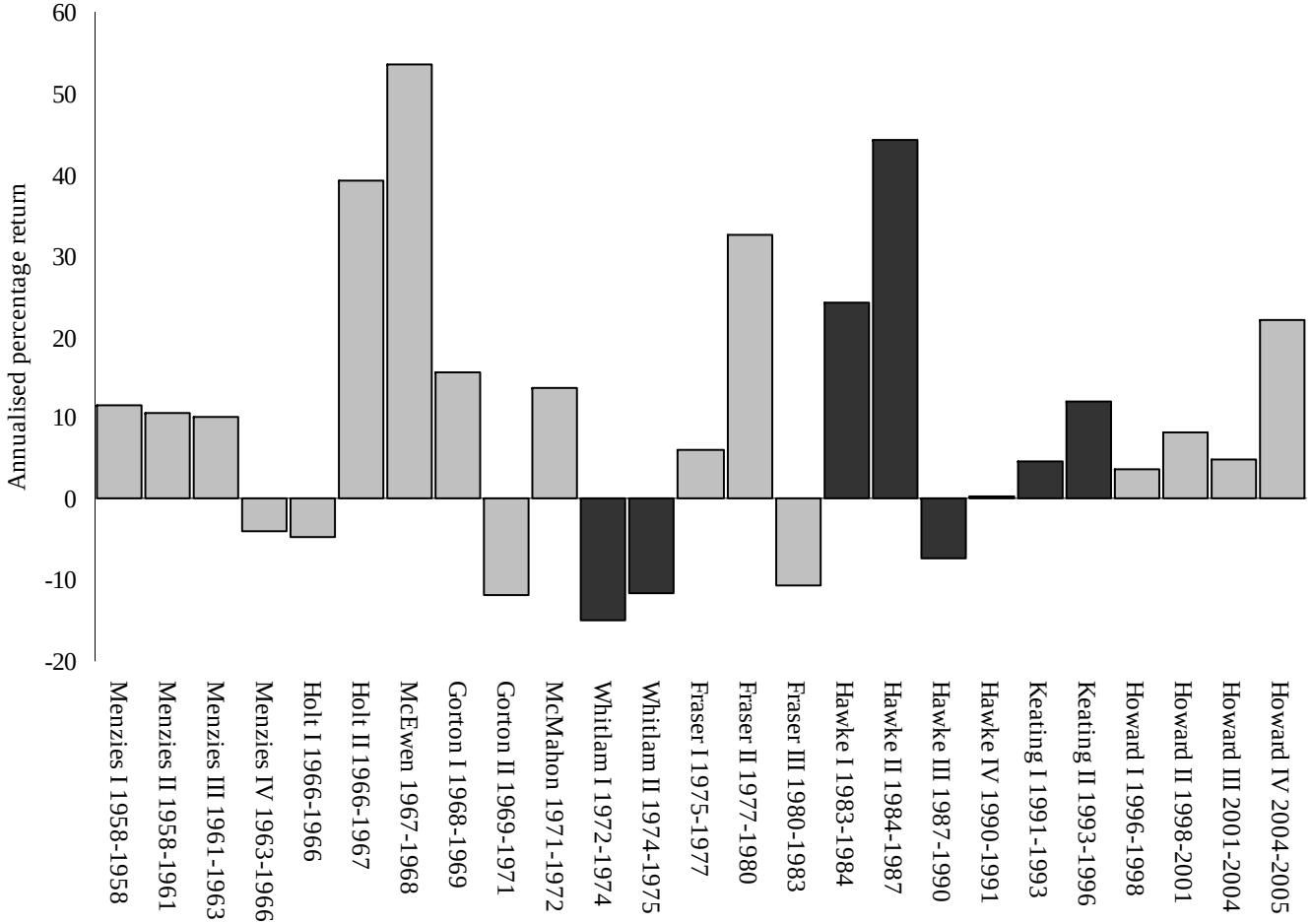
Source: Australian Electoral Commission (2006a; 2006b). Notes: The Australian Parliament consists of two houses, the Senate – selected by voters within a state - and the House of Representatives – selected by voters within an electorate. The party or coalition of parties that has a majority in the House of Representatives (of which the Prime Minister and Leader of the Opposition are normally part) forms the Government. Voting is compulsory with elections always held on a Saturday. The maximum length until a House of Representatives election is held is three years from the first sitting day of the current Parliament plus up to sixty-eight days of adjustments for the issuance of writs, close of nominations, etc. Senators are elected for six year terms on a rotating basis with half of the Senators retiring every three years. If there is a ‘double dissolution’ all Senators and Members of the House of Representatives face election as in 1973, 1975, 1983 and 1987. Vote is the two-party preferred vote for the Liberal-Country/National Party coalition. The Country Party changed its name to the National Country Party in the 1970s, then to National Party in the 1980s, and finally to The Nationals in 2003.

Figure 1
Daily nominal returns and return volatility



Notes: Sample period Monday 6 January 1958 to Friday 30 December 2005. Figures show daily returns (left-hand side axis) and daily return volatility (right-hand side axis). Volatility is measured as the rolling one-month standard deviation of returns.

Figure 2
Annual nominal returns by prime ministerial term



Notes: Figure shows the annualised nominal return using daily data for each prime ministerial term from 1958 to 2005. Australian Labor Party governments are indicated with a darker shade. The number of prime ministerial terms shown (25) exceeds the number of parliamentary terms as distinguished by elections (21) because of replacement of the prime minister during office: Menzies resigned in 1966 and was replaced by Holt, Holt went missing, presumed dead in 1967 and was replaced by McEwen, Gorton was overturned in a party room vote in 1971 and was replaced by McMahon, Hawke was overturned in a party room vote in 1991 and was replaced by Keating.

Table 2
Comparison of daily returns by government and before and after elections, Monday 6 January 1958 to Friday 30 December 2005

	Government	In-government returns			Out-of-government returns			Tests of equality of means		Returns and tests of equality of means one week before election				Returns and tests of equality of means one week after election			
		Days	Mean	Std. dev	Days	Mean	Std. dev	*t*-statistic	*p*-value	Mean	Std. dev	*t*-statistic	*p*-value	Mean	Std. dev	*t*-statistic	*p*-value
Nominal returns	Menzies	2003	0.0245	0.4553	10064	0.0305	0.8986	0.4422	0.6584	0.1103	0.3501	-0.7331	0.4636	0.0199	0.4954	0.0387	0.9691
	Holt-McEwen	488	0.0651	0.5308	11579	0.0280	0.8519	-1.4674	0.1428	0.0019	0.2009	0.2672	0.7894	0.2024	0.1683	-0.5811	0.5614
	Gorton-McMahon	1231	0.0247	0.8284	10836	0.0300	0.8428	0.2143	0.8304	-0.1146	0.8176	0.5337	0.5936	-0.1146	0.8176	0.5337	0.5936
	Whitlam	733	-0.0556	1.1632	11334	0.0350	0.8159	2.0763	0.0382	-0.1349	0.4471	0.1528	0.8786	-0.8886	1.5077	2.1670	0.0306
	Fraser	1846	0.0342	0.8198	10221	0.0286	0.8452	-0.2700	0.7872	0.2702	1.1465	-0.9513	0.3527	0.2040	1.8738	-0.3986	0.6948
	Hawke	2220	0.0509	1.1376	9847	0.0246	0.7587	-1.0353	0.3006	0.0396	0.9432	0.0383	0.9695	-0.0821	0.7606	0.4692	0.6390
	Keating	1068	0.0337	0.7495	10999	0.0290	0.8498	-0.1742	0.8617	0.5058	0.5014	-2.0038	0.0453	-0.1048	1.1753	0.3755	0.7159
	Howard	2478	0.0295	0.7614	9589	0.0295	0.8608	-0.0015	0.9988	0.0602	0.8359	-0.1569	0.8754	0.0272	0.8748	0.0115	0.9908
	Liberal-National	8046	0.0307	0.7115	4021	0.0269	1.0542	-0.2088	0.8346	0.1075	0.8330	-0.7268	0.4700	0.1165	1.1526	-0.5647	0.5744
Real returns	Menzies	2003	0.0191	0.4556	10064	0.0148	0.8987	-0.3166	0.7516	0.1058	0.3503	-0.7404	0.4592	0.0154	0.4964	0.0311	0.9752
	Holt-McEwen	488	0.0562	0.5307	11579	0.0138	0.8520	-1.6773	0.0940	-0.0061	0.2010	0.2637	0.7921	0.1944	0.1683	-0.5848	0.5590
	Gorton-McMahon	1231	0.0133	0.8285	10836	0.0157	0.8430	0.0955	0.9240	-0.1268	0.8182	0.5369	0.5915	-0.1268	0.8182	0.5369	0.5915
	Whitlam	733	-0.0889	1.1629	11334	0.0222	0.8159	2.5465	0.0111	-0.1734	0.4471	0.1629	0.8707	-0.9170	1.5170	2.1550	0.0315
	Fraser	1846	0.0066	0.8198	10221	0.0171	0.8453	0.5034	0.6147	0.2396	1.1470	-0.9391	0.3588	0.1729	1.8748	-0.3904	0.7008
	Hawke	2220	0.0323	1.1375	9847	0.0117	0.7590	-0.8158	0.4147	0.0222	0.9403	0.0347	0.9723	-0.1001	0.7571	0.4675	0.6402
	Keating	1068	0.0274	0.7494	10999	0.0143	0.8499	-0.4844	0.6281	0.4998	0.5016	-2.0057	0.0451	-0.1108	1.1756	0.3744	0.7167
	Howard	2478	0.0229	0.7615	9589	0.0136	0.8609	-0.4913	0.6232	0.0535	0.8349	-0.1562	0.8759	0.0205	0.8738	0.0121	0.9903
	Liberal-National	8046	0.0187	0.7117	4021	0.0089	1.0543	-0.5335	0.5937	0.0928	0.8319	-0.7527	0.4543	0.1023	1.1524	-0.5800	0.5641

Notes: Sample period Monday 6 January 1958 to Friday 30 December 2005. Days refers to the number of trading days; means before (after) election are daily returns for the week before (after) the Saturday election. Levene's test of equality of variances determines whether the test for equality of means assumes equal or unequal variances. Tests of equality of means one week before and after election are against all other days during that government. Mc-Ewen is included with Holt, McMahon is included with Gorton. Howard remains in government at the end of the sample period. Liberal-National refers to the Menzies, Holt-McEwen, Gorton-McMahon, Fraser and Howard governments.

Table 3
Estimated coefficients and standard errors of political cycle models

Dependent variable	Variable	Liberal-National	Labor	Trend	Trend squared	Before election	After election	Breusch-Godfrey	White	Joint test	Equality test
Nominal returns	Coefficient/statistic	0.0533	0.0477	-4.22E-05	1.32E-08	0.0970	-0.0656	1.52E+05	14.2714	2.7267	0.0582
	Standard error	0.0251	0.0272	5.44E-05	2.30E-08	0.0830	0.1283	–	–	–	–
	p-value	0.0334	0.0800	0.4377	0.5649	0.2429	0.6091	0.0000	0.0000	0.0120	0.8094
Nominal return volatility	Coefficient/statistic	0.5289	0.7749	2.34E-04	-1.09E-07	0.0024	0.0570	1.52E+05	3.2056	637.7383	55.5420
	Standard error	0.0346	0.0282	7.50E-05	3.10E-08	0.0804	0.0939	–	–	–	–
	p-value	0.0000	0.0000	0.0018	0.0005	0.9760	0.5439	0.0000	0.0000	0.0000	0.0000
Real returns	Coefficient/statistic	0.0432	0.0316	-4.88E-05	1.66E-08	0.0954	-0.0669	1.79E+02	14.2705	1.3136	0.2431
	Standard error	0.0251	0.0272	5.43E-05	2.30E-08	0.0829	0.1288	–	–	–	–
	p-value	0.0852	0.2464	0.3693	0.4689	0.2501	0.6035	0.0000	0.0015	0.2470	0.6220
Real return volatility	Coefficient/statistic	0.5288	0.7748	2.34E-04	-1.09E-07	0.0024	0.0570	1.52E+05	3.5885	637.6852	55.5350
	Standard error	0.0346	0.0282	7.50E-05	3.10E-08	0.0804	0.0939	–	–	–	–
	p-value	0.0000	0.0000	0.0018	0.0004	0.9759	0.5438	0.0000	0.0000	0.0000	0.0000

Notes: Sample period Monday 6 January 1958 to Friday 30 December 2005. Breusch-Godfrey – Breusch-Godfrey serial correlation LM test for ordinary least squares regression model, White – White heteroskedasticity test for ordinary least squares regression model. All standard errors and *p*-values incorporate Newey-West corrections for heteroskedasticity and autocorrelation of unknown form. Joint test – *F*-statistic and significance of null hypothesis that all coefficients are zero. Equality test – Wald statistic and significance of null hypothesis that estimated coefficients for Liberal-National minus Labor equals zero.