The Effects of Political Uncertainty on Financial Markets

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Does Political Uncertainty Matter?

Movement in the All Ords index during June – July 2016
**Research Questions**

- We examine on-going political uncertainty in the context of the Parliament being in session
  1. What role, if any, does this political uncertainty play in determining the behavior of market returns and their volatility?
  2. Does it matter which party is in power?
  3. Does two-party preferred polling influence these behaviours?

**Why Australia?**

- Australia provides a cleaner institutional setting where divided government and the size of parliamentary majorities are not as consequential as in other countries
  - Two-party system with the binary choice between the Australian Labor Party (ALP) and the Coalition (Liberal and National parties)
  - Prime Minister selected by majority party producing a much lower “degree of separation” between the Prime Minister and the majority party
  - The governing party has a de facto monopoly on the legislative agenda
What’s New and Should We Care?

- Previous studies on legislative activity do not consider conditioning economic variables that may potentially be related to market returns.
- Previous studies do not examine the interaction between legislative activity and the political leaning of the governing party or its popularity as reflected in opinion polls.
- Better empirical modelling.

Should we care?

Cumulative Returns on the Market

Shaded lines indicate days when Parliament is in session.
Cumulative Returns by Parliamentary Activity

In market when Parliament is in recess; cash otherwise

In market when Parliament is in session; cash otherwise

Riskfree rate = RBA cash rate

Cumulative Returns by Governing Party

In market when Coalition governs; cash otherwise

In market when ALP governs; cash otherwise

Riskfree rate = RBA cash rate
Cumulative Returns by Parliamentary Activity and Governing Party

In market when Parliament is in recess and Coalition governs; cash otherwise

In market when Parliament is in recess and ALP governs; cash otherwise

All Ords

Riskfree rate = RBA cash rate
Related Literature

- Much of the existing empirical work examines electoral events/anomalies rather than exploring investors’ view of parliamentary activity
  - Early studies by Niederhoffer, et al (1970) and Riley and Luksetich (1980) find that US markets react positively to election victories by the Republican party
  - More recent studies by Santa-Clara and Valkanov (2003) and Bohl and Gottschalk (2006), and others, find that US market returns are higher during Democratic administrations
    - In contrast, Döpke and Pierdziech (2006) find that returns on the German market are higher under conservative governments

- Several studies find a “presidential cycle” effect where the US stock markets perform better during the second half of a presidency, regardless of political affiliation
- Leblang and Mukherjee (2005) find that return volatility increases when different parties control the presidency and the US Congress
- Very few studies have examined the effects of legislative activity on market returns and their volatility
  - Lamb, et al (1997) find that market returns are much higher in periods when the US Congress is in recess
  - Ferguson and Witte (2006) find that market returns are lower and more volatile when the US Congress is in session. Market returns are highest, and volatility lowest, when a relatively unpopular US Congress is in recess
What We Test

1. Higher levels of political uncertainty will tend to lower market returns (H1a) and increase their volatility (H1b)
2. A Coalition incumbency will tend to reduce the uncertainty produced by parliamentary sessions, limiting the fall in market returns (H2a) and mitigating the rise in their volatility (H2b)
3. Higher electoral support for the Coalition will tend to reduce the uncertainty generated by parliamentary sessions, limiting the fall in market returns (H3a) and mitigating the rise in their volatility (H3b)

Our Variables

- **Dependent variable:** Return on the ASX All Ordinaries index
- **Political variables of interest**
  - \( P_{active} \): Dummy variable which is 1 when either chamber of Parliament is in session and 0 otherwise
  - \( P_{active} \times \text{Coalition} \): Interactive variable where \( \text{Coalition} \) is a dummy variable which is 1 when the Coalition is the incumbent government and 0 otherwise
  - \( P_{active} \times \text{Incumbent2PP} \): Interactive variable where \( \text{Incumbent2PP} = \text{Coalition} \times 2PP + (1 - \text{Coalition}) \times (100 - 2PP) \) and \( 2PP \) reflects the Coalition’s two-party-preferred vote according to polling data
    - \( \text{Incumbent2PP} = 2PP \) when Coalition is the incumbent party
    - \( \text{Incumbent2PP} = 100 - 2PP \) when ALP is the incumbent party
Our Variables

- **Control economic variables**
  - Dividend yield on the market index
  - Riskfree interest rate
  - Term spread
  - Default spread
- **Control calendar variables**
  - Day-of-the-week dummies
  - Pre-holiday dummy
  - First five trading days of January dummy

Data, Sample and Method

- **Sample period**: Jan 1990 to Dec 2014 including eight Federal elections and the incumbency of both major political parties
- Sample for analysis using the control economic variables restricted from end-Aug 1996 to Dec 2014
- **GARCH and EGARCH models**
  - GARCH model accounts for volatility persistence over time
  - EGARCH model captures any asymmetric responses to past volatility shocks
Model Specifications

- We are unable to use $P_{active}$ and $P_{active} \times Incumbent2PP$ together as their correlation exceeds 0.95.

GARCH model specifications

- Models I through III use $P_{active}$ and $P_{active} \times Coalition$
- Models IV through VI use $P_{active} \times Coalition$ and $P_{active} \times Incumbent2PP$
- Models I and IV include no other variables; models II and V include only calendar dummies; models III and VI include all variables.

EGARCH model specifications

- Models I through III using $P_{active}$ and $P_{active} \times Coalition$
- Models IV through VI using $P_{active} \times Coalition$ and $P_{active} \times Incumbent2PP$
- Models I and IV include no other variables; models II and V include only calendar dummies; models III and VI include all variables.

Table 4: GARCH Models of Market Returns – Mean Equation

<table>
<thead>
<tr>
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<th>III</th>
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</thead>
<tbody>
<tr>
<td>$P_{active}$</td>
<td>-0.064**</td>
<td>-0.069**</td>
<td>-0.084*</td>
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<tr>
<td></td>
<td>(0.037)</td>
<td>(0.025)</td>
<td>(0.100)</td>
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<tr>
<td>$P_{active} \times Coalition$</td>
<td>0.052</td>
<td>0.050</td>
<td>0.060</td>
<td>0.060</td>
<td>0.058</td>
<td>0.073</td>
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<td>(0.145)</td>
<td>(0.156)</td>
<td>(0.281)</td>
<td>(0.102)</td>
<td>(0.108)</td>
<td>(0.192)</td>
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<tr>
<td>$P_{active} \times Incumbent2PP$</td>
<td>-0.145**</td>
<td>-0.156**</td>
<td>-0.196*</td>
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<td>(0.022)</td>
<td>(0.014)</td>
<td>(0.057)</td>
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</tr>
</tbody>
</table>

$\beta_{P_{active}} < 0$ (H1a); $\beta_{P_{active} \times Coalition} > 0$ (H2a); $\beta_{P_{active} \times Incumbent2PP} > 0$ (H3a) expected

Sample period: Jan 1990 – Dec 2014 (economic control variables not used)

Sample period: Aug 1996 – Dec 2014 (economic control variables used)
### Table 4: GARCH Models of Market Returns – Variance Equation

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<td>0.085***</td>
<td>0.099***</td>
<td>0.087***</td>
<td>0.086***</td>
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<tr>
<td>GARCH</td>
<td>0.895***</td>
<td>0.896***</td>
<td>0.879***</td>
<td>0.894***</td>
<td>0.895***</td>
<td>0.879***</td>
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<tr>
<td>Pactive</td>
<td>0.018**</td>
<td>0.018**</td>
<td>0.005</td>
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<td>(0.040)</td>
<td>(0.030)</td>
<td>(0.791)</td>
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<tr>
<td>Pactive × Coalition</td>
<td>-0.014</td>
<td>-0.012</td>
<td>0.004</td>
<td>-0.015</td>
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<td>(0.162)</td>
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<td>(0.954)</td>
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<td>Pactive × Incumbent2PP</td>
<td>0.039**</td>
<td>0.040**</td>
<td>0.015</td>
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<tr>
<td></td>
<td>(0.040)</td>
<td>(0.030)</td>
<td>(0.688)</td>
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δ_{Pactive} > 0 (H1b); δ_{Pactive × Coalition} < 0 (H2b); δ_{Pactive × Incumbent 2PP} < 0 (H3b) expected

Sample period: Jan 1990 – Dec 2014 (economic control variables not used)
Sample period: Aug 1996 – Dec 2014 (economic control variables used)

### Table 5: EGARCH Models of Market Returns – Mean Equation

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<tbody>
<tr>
<td>Pactive</td>
<td>-0.062**</td>
<td>-0.066**</td>
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<td>Pactive × Coalition</td>
<td>0.052</td>
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<td>(0.147)</td>
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<td>Pactive × Incumbent2PP</td>
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<td>(0.030)</td>
<td>(0.024)</td>
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β_{Pactive} < 0 (H1a); β_{Pactive × Coalition} > 0 (H2a); β_{Pactive × Incumbent 2PP} > 0 (H3a) expected

Sample period: Jan 1990 – Dec 2014 (economic control variables not used)
Sample period: Aug 1996 – Dec 2014 (economic control variables used)
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<tr>
<td>GARCH</td>
<td>-0.092***</td>
<td>-0.094***</td>
<td>-0.125***</td>
<td>-0.092***</td>
<td>-0.094***</td>
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<tr>
<td>Pactive</td>
<td>0.026**</td>
<td>0.032***</td>
<td>0.032</td>
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<td>(0.029)</td>
<td>(0.007)</td>
<td>(0.153)</td>
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<tr>
<td>Pactive×Coalition</td>
<td>-0.027***</td>
<td>-0.025*</td>
<td>-0.013</td>
<td>-0.028**</td>
<td>-0.026**</td>
<td>-0.010</td>
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<td>(0.049)</td>
<td>(0.059)</td>
<td>(0.581)</td>
<td>(0.034)</td>
<td>(0.041)</td>
<td>(0.639)</td>
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<tr>
<td>Pactive×Incumbent2PP</td>
<td>0.057**</td>
<td>0.069***</td>
<td>0.058</td>
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<td>(0.022)</td>
<td>(0.005)</td>
<td>(0.178)</td>
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$\delta_{\text{Pactive}} > 0$ (H1b); $\delta_{\text{Pactive×Coalition}} < 0$ (H2b); $\delta_{\text{Pactive×Incumbent2PP}} < 0$ (H3b) expected

Sample period: Jan 1990 – Dec 2014 (economic control variables not used)
Sample period: Aug 1996 – Dec 2014 (economic control variables used)

Conclusions

Hypothesis 1: We find that market returns are significantly lower when Parliament is in session in all specifications but their volatility is higher in only the two narrower model specifications.

Hypothesis 2: There is some (weak) evidence that the Coalition being in power coincides with a lower volatility of returns when Parliament is in session.

Hypothesis 3: A higher two-party preferred support for the Coalition coincides with lower, not the expected higher, market returns. There is some (weak) evidence that this higher two-party preferred support coincides with higher, rather than the expected lower, volatility in market returns.
Selected References