We develop and test an integrated theoretical framework for understanding how two forms of rivalry, one related to electoral politics firms observe and the other related to market competition in which these same firms participate, shape risk assessments by firms active in developing countries (“DCs”). Political business cycle (“PBC”) theory suggests that incumbent politicians, particularly incumbent politicians with a left-wing orientation, have incentives to implement expansionary economic policies during election years even if such policies impair sovereign government finances and creditworthiness afterwards. Electoral rivalry and the PBC-related economic policies it prompts increases risk to firms, but strategy research suggests that this increase will be moderated due to rivalry among firms in the same DC market segment. We test hypotheses derived from this integrative theoretical framework with a sample of 458 ratings of sovereign government creditworthiness published by five major credit rating agencies for 18 DCs holding 35 presidential elections from 1987-2000. We find that: 1) agency ratings decrease during election years in DCs with left-wing incumbents, but 2) this electoral rivalry effect on risk diminishes as the number of agencies vying for DC rating business increases. Market rivalry among agencies and, perhaps, other firms doing business in DCs can negate risk effects related to electoral rivalry among politicians.

EMPIRICAL CONTEXT, THEORY AND HYPOTHESES

We place this study of electoral and market rivalry effects on risk assessment in the context of major credit rating agencies (“agencies”) assessing risks associated with lending to DC sovereign governments. Agencies assess the capability and willingness of sovereign governments to meet (not default on) their obligations to creditors based on a 17-level ordinal scale running from “AAA” (16) to “C” (0) of creditworthiness. An important breakpoint in this ordinal scale of sovereign creditworthiness lies between “BBB-“ (7), the highest “investment grade” rating, and “BB+” (6), the highest “junk grade” rating. Junk grade sovereign ratings substantially increase the cost and constrain the availability of credit for DC sovereign governments and their domestically domiciled businesses. Agencies collect fees for providing sovereign rating information to subscribing investors. Agencies also collect fees from sovereign governments to meet (not default on) their obligations to creditors based on a 17-level ordinal scale running from “AAA” (16) to “C” (0) of creditworthiness. An important breakpoint in this ordinal scale of sovereign creditworthiness lies between “BBB-“ (7), the highest “investment grade” rating, and “BB+” (6), the highest “junk grade” rating. Junk grade sovereign ratings substantially increase the cost and constrain the availability of credit for DC sovereign governments and their domestically domiciled businesses. Agencies collect fees for providing sovereign rating information to subscribing investors. Agencies also collect fees from sovereign
governments to rate their bond issuances. Since the late 1980s, the number of agencies competing for sovereign rating business in DC countries has ranged from one to five. McNamara and Vaaler (2004) provide additional details on the DC sovereign rating business.

Figure 1 about here

Figure 1 summarizes our integrative theoretical framework explaining agency sovereign risk assessments in a DC experiencing elections in a competitive multi-party system. Agencies observe the electoral rivalry in the context of competition with each other for rating business in that same DC country. Our framework builds on two assumptions derived from PBC and strategic management perspectives. Based on PBC theory, we first assume that incumbent politicians in DC governments seek to retain office in election years by opportunistically implementing expansionary economic policies to garner voter support, even though such expansion may be detrimental to post-election economy and overall attractiveness for foreign investment (Nordhaus, 1975). This general tendency will be greater for left-wing incumbent politicians interested in temporary economic expansion to reduce unemployment, even though such reduction may increase post-election inflation and the likelihood of DC sovereign default (Hibbs, 1977; Vaaler, Schrage & Block, 2005; Vaaler, 2008). These PBC-related trends increase risk associated with lending and investment during election years, thus:

Hypothesis 1 (Electoral Rivalry Risk Effects): Election periods in DCs will be associated with decreased agency ratings (decreased creditworthiness).

Based on strategic management perspectives, we next assume that competitive rivalry among agencies for sovereign rating business in a specific DC market will moderate agency credit rating assessments during election periods. Under stable market conditions, prior research suggests that market rivalry leads to more favorable ratings for at least some of the agencies (McNamara & Vaaler, 2000). If the raters and investors see elections as institutionally planned periods of heightened uncertainty regarding economic policies and the possibility of temporary policy manipulations but see this uncertainty as within the expected range of normal fluctuations, then the moderating impact of market rivalry is likely to diminish PBC-related electoral effects on agency ratings. Accordingly, we predict that:

Hypothesis 2a (Diminishing Market Rivalry Risk Effects): Election period decreases in ratings will be diminished as the number of agencies rating a given DC increases.

Alternatively, elections may prompt unexpected and severe changes in sovereign risk profiles, particularly in DCs where democratic processes such as multi-party elections are still rather novel practices for domestic voters, politicians and foreign firms. Thus, these situations may trigger serious uncertainty-based concern for the agencies. Prior research suggests that crisis-based uncertainty led agencies to be especially harsh in their risk assessments when they faced multiple rivals (Vaaler & McNamara, 2004). If changes in risk related to elections and the PBC-related incentives they unleash are outside the expected range of fluctuation for agencies then the moderating impact of market rivalry is likely to magnify the severe and typically negative effects on agency ratings. Accordingly, we predict in that:

Hypothesis 2b (Magnifying Market Rivalry Risk Effects): Election period decreases in ratings will be magnified as the number of agencies rating a given DC increases.
EMPIRICAL METHODOLOGY

To investigate these two hypotheses empirically, we define the following equation:

$$
\text{Rating}_{rit} = \alpha_0 + \sum_{i=1}^{17} \gamma_i \text{Country} + \sum_{t=1988}^{2000} \xi_t \text{Year}_t + \sum_{k=1}^{12} \lambda_{\text{Macro} \_it} \\
+ \beta_1 \text{Election} + \beta_2 \text{Rinc} + \beta_3 \text{Election} \times \text{Rinc} \\
+ \beta_4 \text{Numriv} + \beta_5 \text{Election} \times \text{Numriv} + \beta_6 \text{Rinc} \times \text{Numriv} \\
+ \beta_7 \text{Election} \times \text{Rinc} \times \text{Numriv} + \mu_{rit}$$  \hspace{1cm} (1)

In equation (1) the dependent variable, \text{Rating}, is the 17-level agency rating published by agency \( r \) for country \( i \) on December 31 of each year \( t \) from 1987-2000. On the right-hand side, we first include dummy variables to control for unobserved and possibly idiosyncratic effects related to the Country \((\gamma_{1,17})\) and Year \((\xi_{1,12})\) of \text{Rating}. As additional controls, we include 12 macroeconomic variables (2-year current and previous year moving averages), \text{Macro}, for each country \( i \) and year \( t \) (averaged with year \( t-1 \)) in our sample. The 12 control variables, for which \( \lambda_{1,12} \) are parameter estimates, include (and predicted effects on \text{Rating} are): \text{Current Account Balance} (+), \text{Per Capita Income} (+), \text{GDP Growth Rate} (+), \text{Inflation Rate} (-), \text{Fiscal Balance} (+), \text{External Debt} (-), \text{Total Foreign Currency Reserves} (+), \text{Domestic Credit} (+), \text{Contract Intensive Money (M2)} (+), \text{Population} (+), \text{Recent Default} (-) and \text{Lack of Civil Liberties} (-).

First, to investigate links between agency ratings and electoral rivalry, we define the term \text{Election} \((\beta_1)\), which is a 0-1 indicator equaling 1 if there was an election in year \( t \) and 0 if there is no election in year \( t \). \text{Election} is expected to be negatively related to \text{Rating}: \( H_1: \beta_1 < 0 \). While \( H_1 \) predicts that election years will decrease creditworthiness generally, we note that PBC literature highlights this effect where incumbents facing re-election have left-wing orientations. Left-wing incumbents are less reluctant to resort to electioneering through expansive economic policies than right-wing and centrist incumbents facing re-election. Accordingly, we also define the term \text{Rinc} \((\beta_2)\), which is a 0-1 indicator equaling 1 if the partisan orientation of the incumbent in year \( t \) is either not left-wing (i.e., right-wing or centrist). Though not formally hypothesized, \text{Rinc} is expected to be positively related to \text{Rating} as right-wing and centrist incumbents are more likely to champion economic policies friendly to investor rather than worker interests. A third interaction term \text{Election} \times \text{Rinc} \((\beta_3)\) captures differences in election-year effects on \text{Rating} for right-wing incumbent elections. When added to the empirical model, Election on its own becomes a test of left-wing incumbent elections and their PBC effects on \text{Rating}. Thus, a test of partial support for \( H_1 \) in a fully-partitioned model is: \( H_1: \beta_1 (\text{Election}) < 0 \).

Next, to investigate differences in \text{Rating} linked to rivalry among agencies in specific DC market segments, we define the term \text{Numriv} \((\beta_4)\), which is a number from 1-4 based on the number of rival agencies publishing ratings at the end of year \( t \) in country \( i \). We make no formal predictions about the impact of agency rivalry in non-election years. By interacting \text{Numriv} with \text{Election} and \text{Rinc} we define three additional terms \text{Election} \times \text{Numriv} \((\beta_5)\), \text{Rinc} \times \text{Numriv} \((\beta_6)\) and \text{Election} \times \text{Rinc} \times \text{Numriv} \((\beta_7)\). When included in our empirical model, they permit us to partition agency rivalry effects and test support for \( H_2a \) and \( 2b \). Differences in rivalry effects on \text{Rating} when election years involve left-wing incumbents are captured by \text{Election} \times \text{Numriv} \((\beta_5)\). For right-wing incumbent election years, the same differences will be given by \text{Election} \times \text{Rinc} \times \text{Numriv} \((\beta_7)\). If market rivalry diminishes risk perceptions related to elections and PBC-related economic policy considerations then these two terms should be positively related to \text{Rating}: \( H_2a: \beta_5 (\text{Election} \times \text{Numriv}) > 0 \) and \( \beta_7 (\text{Election} \times \text{Rinc} \times \text{Numriv}) > 0 \). If market rivalry
magnifies risk perceptions then these two terms should be negatively related to Rating: H2b: \( \beta_5 (\text{Election} * \text{Numriv}) < 0 \) and \( \beta_7 (\text{Election} * \text{Rinc} * \text{Numriv}) < 0 \).


**EMPIRICAL RESULTS**

The mean value of the dependent variable, Rating, is 5.40 with a standard deviation of 2.85, a minimum value of 0 (e.g., Moody’s rating for Russia in default at the end of 1998), and maximum value of 11 (e.g., Moody’s rating for South Korea at the end of 1988). On average, agencies give DCs in the 1980s and 1990s ratings of 5.4 (“BB”), slightly below the investment grade cut-off of 7 (“BBB-”). The standard deviation of 2.85, however, tells us that a substantial percentage of the ratings in our sample are located even closer to this cut-off. 85 of the 458 ratings in our sample equal 6 (BB+) just below the cut-off while 58 of the 458 ratings equal 7 (BBB-) the lowest investment grade rating. Small changes in creditworthiness related to electoral and market rivalry can have practical effects on the availability of capital for all of the DCs in our sample.

We implement but do not report a base ordered probit regression of Rating on fixed country (\( \gamma \)), year (\( \xi \)) and 12 Macro controls (\( \lambda \)) alone. Nine of the 12 Macro terms exhibit the predicted sign, while seven of the nine are significant at the 1% level. As expected, Rating is higher when DCs have faster economic growth, lower inflation, budget surpluses, less external debt, larger domestic credit markets, greater willingness by the public to place funds in local banks, and a recent history of meeting financial obligations to foreign investors.

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Columns 1-3 of Table 2 reports selected results from three ordered probit regressions of Rating on country (\( \gamma \)), year (\( \xi \)) Macro (\( \lambda \)) terms and progressively more terms related to electoral and market rivalry in DC election years. In Column 1, we add to the base controls the 0-1 Election term. It enters significantly with a negative sign (\( \beta_1 = -0.27, p < 0.05 \)). Consistent with Hypothesis 1, election years and the political rivalry-related policy manipulations they engender decrease DC sovereign creditworthiness generally.

In Column 2 we add the 0-1 Rinc term and the 0-1 Election*Rinc interaction term, thus partitioning election-year effects into those related to right-wing incumbent versus left-wing incumbent election years. Left-wing incumbent election year effects are again significant and negative (\( \beta_1 = -0.47, p < 0.01 \)), but the Election*Rinc term is significant and positive (\( \beta_3 = 0.29, p < 0.05 \)) and the linear combination of Election and Election*Rinc (\( \beta_1 + \beta_3 = -0.17, p = 0.23 \)) is not significantly different from zero. These Column 2 results convey that election-year effects decreasing agency assessments of DC sovereign creditworthiness are significant but only in the case of elections with left-wing incumbents. Agencies assume that left-wing incumbents are more willing to engage in economic policy manipulations than more investor-friendly right-wing
incumbents. Thus, we find partial support for H1 and the impact of electoral rivalry on agency risk assessments.

Column 3 presents results from equation (1) estimated in full. The election year dummy (Election) now captures left-wing incumbent election year effects when an agency faces no market rivalry, that is, when Rinc is zero. The impact on Rating is significant and negative ($\beta_1 = -1.25$, p < 0.05). Holding other right-hand side terms at their mean levels, agencies decrease sovereign ratings by one ordinal level. Given the grouping of so many ratings around the junk versus investment grade break point, such a decrease can have a substantial impact on the cost and availability of debt. Corresponding right-wing and centrist effects under monopoly or increasingly competitive market contexts are not significantly different from zero. Again, these results indicate partial support for Hypothesis 1 and the contingent importance of electoral rivalry on agency credit assessments. The electoral rivalry term, Numriv, represents effects on Rating during non-election years where there is a left-wing incumbent. Its interaction with Rinc captures differences in non-election year effects when a right-wing president is in office. Neither term is significantly different from zero. By contrast, agency rivalry during election years with left-wing incumbent presidents exhibits positive and significant differences. The interaction of rivalry and election (Election*Numriv) is significant and positive ($\beta_3 = 0.33$, p < 0.05). Holding other right-hand side terms at their mean levels and then changing agency rivalry level from 0 to 2 yields a linear combination of Election + Election*Numriv ($\beta_1 + \beta_3$) that is not significantly different from zero. The logical inference from this simulation is that addition of two or more rivals to a DC market negates the decrease in creditworthiness it would otherwise suffer in an election year with a left-wing incumbent. We find no such rivalry effects on Rating in the case of elections with right-wing incumbents. Together, these results suggest partial support for alternative Hypothesis 2a and diminishing rather than magnifying effects related to market rivalry.

CONCLUSION

We think these results have important implications. Political rivalry during election years matters for risk assessment by agencies and we conjecture, other foreign firms looking to lend and invest in DCs. But it is the combination of elections and partisan political factors that heightens risk perceptions. These perceptions do not develop in isolation from the competitive market in which so many risk-assessing firms operate. During election years, agencies analyze DC macroeconomic “fundamentals” and electoral rivalries. They also look to each other. In the context of temporarily heightened but apparently foreseeable uncertainty, agencies limit the “pass-through” of political rivalry-related risk as market rivalry increases for rating business from sovereign governments and other DC firms.

Decreasing creditworthiness during election years with left-wing incumbents may well represent a well-considered judgment under uncertainty that such incumbents will imperil government finances in the medium term just to buy votes and retain office in the short term. On the other hand, it is arguably ill-considered, even venal to moderate such assessments just because rival agencies could improve their chances of winning a bid for an upcoming DC sovereign bond or corporate bond issue during the same election year. Managers looking to agencies for objective advice on DC credit risk during election years might do well to rely less on these “experts” and more on their own internal risk assessment expertise.

REFERENCES AVAILABLE FROM THE AUTHORS
**FIGURE 1**

**Integrative Theoretical Framework: Impact of Elections and Rivalry on Agency Ratings**

**Hypothesis 1**

Electoral Rivalry and Related PBC Economic Policy Manipulations

- 

**Hypothesis 2a**

Market Rivalry Impact If Electoral Rivalry Effects Are Within Expected Range

+ 

Agency Ratings During Election Years

- 

**Hypothesis 2b**

Market Rivalry Impact If Electoral Rivalry Effects Are Outside Expected Range

---

**TABLE 1**

**Ordered Probit Regression Results: Electoral and Market Rivalry Effects on Agency Ratings**

<table>
<thead>
<tr>
<th>Equation Specification</th>
<th>Key Terms</th>
<th>(1)</th>
<th>(2)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Election Year (Election) (β₁)</td>
<td>-0.27* (0.12)</td>
<td>-0.47** (0.17)</td>
<td>-1.25* (0.48)</td>
</tr>
<tr>
<td></td>
<td>Right/Center Incumbent Party (Rinc) (β₂)</td>
<td>-0.33 (0.42)</td>
<td>-0.50 (0.40)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Election<em>Right/Center (Election</em>Rinc) (β₃)</td>
<td>0.29* (0.13)</td>
<td>1.13 (0.75)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rivalry (Numriv) (β₄)</td>
<td>0.02 (0.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Election* Rivalry (Election*Numriv) (β₅)</td>
<td>0.33* (0.16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Right/Center<em>Rivalry (Rinc</em>Numriv) (β₆)</td>
<td>0.02 (0.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Election<em>Right/Center</em>Rivalry (Election<em>Rinc</em>Numriv) (β₇)</td>
<td>-0.35 (0.26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>458</td>
<td>458</td>
<td>458</td>
<td></td>
</tr>
<tr>
<td>Adjusted Wald $X^2$</td>
<td>29.99**</td>
<td>46.48**</td>
<td>53.44**</td>
<td></td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td>0.3616</td>
<td>0.3624</td>
<td>0.3633</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Country (γ), year (ζ) and Macro (λ) effects included in all estimations but not reported.

**** p ≤ 0.01, * p ≤ 0.05