

# Elections, Opportunism, Partisanship and Sovereign Ratings in Developing Countries

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## Abstract

We empirically examine whether and how opportunistic and partisan political business cycle (“PBC”) considerations explain election-period decisions by credit rating agencies (“agencies”) publishing developing country sovereign risk-ratings (“ratings”). Analyses of 391 agency ratings for 19 countries holding 39 presidential elections from 1987–2000, initially suggest that elections themselves prompt rating downgrades consistent with opportunistic PBC considerations, that incumbents are all likely to implement election-period policies detrimental to post-election creditworthiness. But more refined analyses, integrating both opportunistic and partisan PBC considerations in a unified framework, suggest that election-period agency downgrades (upgrades) are more likely as right-wing (left-wing) incumbents become more vulnerable to ouster by challengers. Together, these results underscore the importance of integrating both opportunistic and partisan PBC considerations into any explanation of election-period risk assessments of agencies and, perhaps, other private, foreign-based financial actors important to the pricing and allocation of capital for lending and investment in the developing world.

## 1. Introduction

This study investigates the impact of developing country electoral politics on private, often foreign-based financial actors making decisions about risks associated with lending and investment. We ground our approach in the theory of political business cycles (“PBCs”), which, following from the seminal papers of Nordhaus (1975) and Hibbs (1977), models interactions between domestic political incumbents and voters. We extend the empirical domain of both opportunistic and partisan PBC theories to consider the election-period reactions of international credit rating agencies (“agencies”) to potential PBC-style behavior by incumbents. Sovereign risk ratings (“ratings”) published by agencies play a critical role in conditioning the cost and availability of capital for lending and investment in developing countries. Agencies facilitate credit transactions for developing country borrowers by publishing letter-grade ratings, commonly relied on by capital market participants to assess both the specific capability and willingness of governments to honor their debts, and more general risks associated with lending and investment in the locale.

Our study investigates whether these agencies also “vote” during election periods based on opportunistic or partisan PBC considerations. Their votes are in the form of election-year ratings. Opportunistic PBC considerations suggest that agencies are more likely to downgrade developing country sovereign ratings in election years, due to general concern that incumbents will implement spending sprees beneficial to garner-

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ing votes at the polls, but detrimental to post-election sovereign creditworthiness. Recent research by Block and Vaaler (2004) indicates that agency ratings during election-years in developing countries from 1987–98 tend to fall by at least one rating level, consistent with opportunistic PBC considerations.

By contrast, partisan PBC considerations suggest that elections *per se* provide no basis for ratings changes. Agencies look primarily at the partisan orientation of incumbents, assess the favorability of their policies for investors, and consider the implications of any switch in policies should the incumbents be ousted at election. We posit that right-wing parties tend to adopt more “investor-friendly” policies than left-wing parties. Thus, we predict that agencies will favor likely electoral transitions to the right-wing and to penalize likely transitions to the left-wing. Our prediction follows from development of a conceptual framework integrating opportunistic and partisan PBC considerations from an agency perspective.

Empirical analysis of 391 agency ratings for 19 developing country sovereigns holding 39 presidential elections from 1987–2000 generally supports our conceptual framework and related predictions. Specifically, we find that PBC considerations of both types are significant with primary importance related to the partisan PBC considerations. They help explain the election-period risk assessments of at least one group of private, foreign-based actors, central to the pricing and allocation of capital for developing country investment and growth.

## 2. Research Background

### *Opportunistic and Partisan PBC Theory*

Opportunistic PBC theory originated with Nordhaus (1975, 1989) and MacRae (1977), who contended that election-period economic policy choices were motivated by the general support they would generate from voters with largely homogenous preferences. While early models assumed naïve voters with adaptive expectations, and thus, limited capabilities to anticipate incumbent policies during election periods, models developed later by Rogoff and Siebert (1988) and Rogoff (1990) posited voters with rational expectations and relative ease at anticipating election-period spending sprees by politicians. Politicians in these models are undifferentiated by ideology, and seek office for its own sake.

Traditional partisan PBC models originated with Hibbs (1977, 1987), who argued that politicians seeking election tended to adopt economic policies according to ideological preferences. According to traditional partisan PBC models, incumbents may still use economic policy to garner voter support, but their policy decisions are based on their partisan political orientation, which can lead to very different emphases. Partisan PBC research often articulates these differences in terms of a simple Phillips curve approach with left-wing incumbent policies tending to favor employment at the expense of inflation, and with right-wing incumbent policies favoring inflation at the expense of employment. Because voter preferences are assumed to be heterogeneous based on these types of partisan preferences, such policy differences can generate substantial differences in political support during election periods, substantial differences in employment, inflation and economic growth after elections, and substantial right-left partisan swings across several election periods (Drazen, 2000).

Alesina (1987, 1988) refined traditional partisan PBC models to be consistent with rational-expectations assumptions. So-called rational partisan cycle (“RPC”) models assume a less exploitable Phillips curve compared to traditional partisan PBC models.

Thus, Alesina et al. (1997) argued that the main difference between traditional partisan PBC and RPC models is that real effects of partisan shifts in government tend to persist in traditional models, but is temporary in rational models.

While left-right partisan differences in policy preferences are most commonly articulated in terms of the inflation-employment tradeoff, they proxy for a more comprehensive range of right-wing policy preferences generally favoring the interests of the investors versus left-wing policies generally favoring the interests of workers. Hibbs (1977) for example, argued that the major supporters of right-wing parties are typically middle- and upper-class individuals with higher incomes and investment wealth, a considerable part of which is typically in nominally fixed assets. Left-wing supporters typically have lower incomes and wealth, aside from human capital tied closely to the employment relationship. Based on this distinction, it is easy to expand the list of partisan distinctions to a range of right-wing fiscal, monetary and related policies including, but not limited to lower inflation, favoring investor interests, and a range of left-wing policies including, but not limited to higher employment, favoring worker interests.

### *Empirical Evidence of Opportunistic and Partisan PBCs*

Recent reviews of the PBC research chronicle a growing empirical literature, but with more growth in the opportunistic rather than partisan PBC branches, and with much more work in both branches in industrialized country rather than developing country contexts. While evidence supporting opportunistic PBCs in industrialized countries is, to date, mixed, empirical studies in developing countries consistently find support for the proposition that incumbents may employ expansionary monetary, fiscal and related policies during election periods to gain voter support on the final election day. Relevant studies include Schuknecht (1999), Block (2002), Akhmedov and Zhuravskaya (2004), and Block and Vaaler (2004).

Our literature review finds only sparse application of partisan PBC theory in non-industrialized democracies, and practically nothing applying to interactions between politicians and private, non-voting actors. Imbeau et al. (2001) meta-study illustrates the mainstream of partisan PBC research to date: Examination of 693 cross-sectional estimates from 43 different studies of left-right party impact on policy in OECD countries yielded conflicting results, but overall strong evidence of partisan cycles in fiscal, monetary and related policies in studies covering time-periods after 1973. This was consistent with Alesina et al. (1997).

In moving from politician-voter to politician-private actor interactions, the population of partisan PBC empirical research thins considerably. PBC-related studies of stock markets, currency markets, and labor markets include Alesina and Roubini (1992), Alesina et al. (1997), Santa-Clara and Valkanov (2003), Bachman (1992), and Bernhard and Leblang (2002). As we further refine the search for previous research using partisan PBC models to explain politician-private actor interactions in developing countries, we find only Leblang (2002) and Vaaler, Schrage and Block (2005), who observed partisan-based changes in sovereign bond spreads 60–90 days prior to 19 presidential elections in 12 developing countries from 1994–2000.

### **3. Opportunistic, Partisan, and Integrated PBC Hypotheses**

#### *Simple Opportunistic PBC Hypothesis Development*

Our fundamental research proposition is that considerations linked to PBC opportunism and partisanship may enter significantly into agency risk assessments made in the context of uncertainty related to elections. Both traditional and rational PBC models from the opportunistic branch posit politicians, with incentives to resort to expansionary fiscal and monetary policies during elections to boost their chances of retaining office, even though such policies may necessitate post-election contractions. From an opportunistic PBC perspective, agencies concerned specifically with the capability and willingness of sovereigns to honor their debts and more generally with the overall investment environment will anticipate such macroeconomic instability and interpret it as increasing investment risks and the likelihood of sovereign default. This, in turn, should raise the likelihood of a downgrade in developing country's agency rating.

*H1: Election years will be associated with higher likelihood of agency downgrade no matter the partisan orientation of the sovereign's incumbent.*

#### *Simple Partisan PBC Hypothesis Development*

Partisan PBC models differ from opportunistic PBC models by their explicit treatment of right-wing versus left-wing policy preferences and their economic implications when there is a transition in power following an election. From a partisan PBC perspective, agency assessments of sovereign risk are generally presumed to be more favorable with right-wing incumbents since their policy preferences, which include lower inflation, are more investor-friendly and decrease the likelihood of default. Agency assessments of sovereign risk are generally presumed to be less favorable with left-wing incumbents since their policy preferences, which tolerate higher inflation, are less investor-friendly and increase the likelihood of default. Recent empirical studies on macroeconomic determinants of agency ratings by Cantor and Packer (1996a, 1996b), Larraín et al. (1997), McNamara and Vaaler (2000), and Vaaler and McNamara (2004), yield results consistent with this view. They all find that inflation is negatively related to agency ratings for industrialized (Cantor and Packer, 1996a, 1996b; Larraín et al., 1997) and developing countries (McNamara and Vaaler, 2000; Vaaler and McNamara, 2004).

*H2: Election years will be associated with higher likelihood of agency downgrade for sovereigns with right-wing incumbents, and with higher likelihood of agency upgrade for sovereigns with left-wing incumbents.*

#### *Integrated Opportunistic-Partisan PBC Framework and Hypothesis Development*

More refined treatment of agency electoral expectations permits us to integrate opportunistic and partisan PBC considerations into a broader conceptual framework and related hypotheses about election-year changes in agency ratings. Frey and Schneider (1978) and Franzese (2002) suggest that opportunistic incentives may be modified by the incumbent's likelihood of victory as election day approaches. Incumbents certain of victory will have fewer incentives to resort to opportunistic policies compared to incumbents with their backs against the wall. This assertion is in keeping with Schultz

*Table 1. Predicted Directions of Election-Year Changes in Agency Ratings Based on Partisan and Opportunistic PBC Considerations<sup>a</sup>*

<i>Incumbent partisan orientation →</i> <i>Agency electoral expectation ↓</i>	<i>Right-wing orientation</i>	<i>Left-wing orientation</i>
Right-wing expected to win ( $\lambda \approx 1$ )	(0, 0) Right-wing base case scenario	(+, -) Compared to left-wing base case and right-wing close call scenarios
Closely balanced expectations ( $\lambda \approx 0.5$ )	(-, -) Compared to right-wing base case scenario	(+, -) Compared to left-wing base case scenario
Left-wing expected to win ( $\lambda \approx 0$ )	(-, -) Compared to right-wing base case and right-wing close call scenarios	(0, 0) Left-wing base case scenario

<sup>a</sup>Predicted direction of change in spread based on PBC considerations: (partisan, opportunistic).

(1995), who shows that expectations of incumbent party victory in British parliamentary elections are negatively correlated with the likelihood of expansionary economic policies in the election run-up, as well as with Block et al. (2003), who make a similar point in the African context.

With this insight on the role of electoral expectations and PBC incentives we define an integrated PBC framework in Table 1. The two columns define the partisan orientation of a right-wing or left-wing incumbent seeking to retain office in the general election. The three rows define different levels of agency expectations ( $\lambda$ ) regarding the likelihood that a right-wing candidate will prevail on election day. This expectation ranges from  $0 \leq \lambda \leq 1$ , where  $\lambda \approx 1$  indicates bondholder expectation of a right-wing candidate victory,  $\lambda \approx 0$  indicates bondholder expectation of a right-wing defeat, and  $\lambda \approx 0.5$  indicates closely balanced bondholder expectations. The resulting six cells in this  $3 \times 2$  matrix represent the predicted effects that incumbent partisan orientation and incumbent re-election likelihood will have on agency ratings as measured by decreasing/downgraded (-) ratings indicative of greater risk, or increasing/upgraded (+) ratings indicative of less risk.

There are two “base case” scenarios in Table 1. In the right-wing base case, a right-wing incumbent faces re-election and is expected to win ( $\lambda \approx 1$ ). In this base case, there is likely to be no change bond spreads (0, 0) related either to partisan or opportunistic PBC considerations. From a partisan PBC perspective, current right-wing policies favorable to investors are likely to continue after the election. From an opportunistic PBC perspective, the expectation of easy incumbent electoral victory assuages agency concerns about the possibility of pre-election spending sprees meant to buy votes at the expense of post-election investor interests. The left-wing incumbent base case of expected re-election ( $\lambda \approx 0$ ) leads to a similarly null impact on agency ratings (0, 0).

The remaining four cells in Table 1 show how partisan and opportunistic PBC considerations can generate changes in agency ratings during elections. Election-year agency ratings differ from the two base cases once agency expectations vary from

certain incumbent re-election. With a right-wing incumbent, agencies may have closely balanced expectations ( $\lambda \approx 0.5$ ) or expect the right-wing incumbent's defeat ( $\lambda \approx 0$ ). These two alternatives to the base case lead to partisan and opportunistic PBC pressures to decrease/downgrade election-year ratings relative to the right-wing base case ( $-$ ,  $-$ ). From a partisan PBC perspective, the prospect of a partisan shift from right-wing investor-friendly economic policies to left-wing policies will prompt a downgrade. From an opportunistic PBC perspective, the prospect of victory by the challenger will prompt the (right-wing) incumbent to engage in electioneering spending sprees meant to buy votes and stave off electoral defeat, a prospect that also troubles agencies and prompts downgrade tendencies ( $-$ ,  $-$ ).

Conversely, when agencies' expectations of left-wing incumbent victory are closely balanced ( $\lambda \approx 0.5$ ) or if easy ouster by a right-wing challenger is expected ( $\lambda \approx 1$ ), then PBC effects on election-year ratings are both positive (increasing/upgrade) and negative (decreasing/downgrade) (+,  $-$ ) compared to the base case. From a partisan PBC perspective, the prospect of a partisan switch to investor-friendly right-wing policies eases agency concerns and prompts an upgrade. From an opportunistic PBC perspective, however, the prospect of defeat by a (right-wing) challenger prompts the (left-wing) incumbent to engage in electioneering spending sprees to "buy" votes, a prospect that again troubles agencies leading to a downgrade. Note that for right-wing incumbents, our framework suggests that partisan and opportunistic PBC considerations are mutually reinforcing. For left-wing incumbents, however, these two PBC considerations work in opposition to one another, leaving it to the data to determine whether opportunistic or partisan PBC considerations may dominate.

Two hypotheses follow from this reasoning. For elections with right-wing incumbents and mutually reinforcing opportunistic and partisan PBC considerations, we predict that:

*H3: For sovereigns with right-wing incumbents, election years will be associated with higher likelihood of agency downgrade, compared to the base case, as the likelihood of re-election decreases.*

For elections with left-wing incumbents, opposing PBC effects prompt alternative hypotheses:

*H4a: (Dominance of Partisan PBC considerations): For sovereigns with left-wing incumbents, election years will be associated with higher likelihood of agency upgrade, compared to the base case, as the likelihood of re-election decreases.*

*H4b: (Dominance of Opportunistic PBC considerations): For sovereigns with left-wing incumbents, election years will be associated with higher likelihood of agency downgrade, compared to the base case, as the likelihood of re-election decreases.*

#### 4. Methodology

##### *Ratings Model and Hypothesis Tests*

To evaluate these four hypotheses, we estimate several empirical models of agency ratings based on general rating factors commonly used by the agencies, and on related PBC factors linked to elections, incumbent partisan orientation, and expectations of incumbent electoral victory. Our basic estimating equation is:

$$\begin{aligned}
\Delta RATING_{rit} = & \beta_0 + \sum_{r=1}^4 \alpha_r AGENCY + \sum_{i=1}^{18} \gamma_i COUNTRY + \sum_{t=1988}^{2000} \xi_t YEAR_t \\
& + \sum_{j=1}^7 \psi_j \Delta MACRO_{it} + \beta_1 ELEC_{it} + \beta_2 RINC_{it} \\
& + \beta_3 (ELEC_{it} * RINC_{it}) + \beta_4 (\lambda D * ELEC_{it}) \\
& + \beta_5 (\lambda D * ELEC * RINC_{it}) + \mu_{rit}.
\end{aligned} \tag{1}$$

This full specification (in which  $\Delta$  indicates first differences) incorporates each of the elements of our hypotheses. We implement separate tests of these hypotheses by first imposing, and then relaxing, the restriction that various parameters in equation (1) equal zero. Our strategy is first to establish the validity of our control variables by estimating equation (1) in levels, and imposing the constraint that all  $\beta$ 's equal zero. We then test Hypothesis 1 by relaxing the zero constraint on  $\beta_1$ . To test Hypothesis 2, we then relax the zero constraint on  $\beta_2$  and  $\beta_3$ . Finally, we introduce electoral expectations (described below) to test Hypotheses 3 and 4 by relaxing the zero constraint on the remaining coefficients.

In equation (1), the dependent variable, *RATING*, is the rating level on December 31 of year  $t$  published by agency  $r$  for country  $i$ . The ratings used to measure this change are the 17 ordinal level sovereign risk-ratings on long-term foreign currency denominated debt published by the five major agencies active in the sovereign rating business from 1987–2000 (16 = AAA, 15 = AA+, 14 = AA, 13 = AA-, 12 = A+, 11 = A, 10 = A-, 9 = BBB+, 8 = BBB, 7 = BBB-, 6 = BB+, 5 = BB, 4 = BB-, 3 = B+, 2 = B, 1 = B-, 0 = C). Because rating levels are defined ordinally, we estimate the equation using ordered probit, and adjust for possible heteroskedasticity as well as clustering in cross-sectional members.

To explain these annual rating levels, we include dummy variables to control for unobserved effects related to individual agencies  $r$  (*AGENCY*), countries  $i$  (*COUNTRY*) and years  $t$  (*YEAR*). Next, we include seven macroeconomic control variables (*MACRO*) for each country. Again, previous academic research (e.g., Cantor and Packer, 1996a, 1996b) as well as statements by the agencies themselves (e.g., S&P, 1999a) suggest that regular ratings reviews rely heavily on such macroeconomic data with approximately annual periodicity. Final data on these seven terms may be published in year  $t$  only after agencies have completed their reviews, so we construct rolling two-year averages using observations from years  $t$  and  $t - 1$ .

The seven macroeconomic control variables included are: (1) per capita income (*PCI*) measured in thousands of constant (1995) US dollars and expected to be positively related to rating levels; (2) economic growth (*GDPG*) measured as the average annual real *GDP* growth rate and expected to be positively related to rating levels; (3) inflation (*INF*) measured as the average annual consumer price inflation and expected to be negatively related to rating levels; (4) fiscal balance (*FISCBAL*) measured as the average annual overall budget balance relative to *GDP* and expected to be positively related to rating levels; (5) external balance (*EXTBAL*) measured as the average current account balance relative to *GDP* and expected to be positively related to rating levels; (6) external debt (*EXTDEBT*) measured as the sum of public, publicly guaranteed, and private non-guaranteed long-term debt, use of IMF credit, and short-term debt divided by *GDP* and expected to be negatively related to rating levels; and (7) recent default indicator (*DEF5*) measured as a 0–1 indicator (1 if in default, 0 otherwise), indicating whether the sovereign has defaulted on its foreign-currency

denominated debt (excluding bank debt) in the last five years, and expected to be negatively related to rating levels.

The term,  $ELEC (\beta_1)$ , is a 0–1 indicator variable taking the value of 1 when country  $i$  holds a presidential election in year  $t$ .  $RINC (\beta_2)$  is also a 0–1 indicator taking the value of 1 when country  $i$  in year  $t$  has a right-wing incumbent president. A finding that  $\beta_1 < 0$  would indicate support for Hypothesis 1. This, in turn, would be consistent with and extend previous findings by Block and Vaaler (2004) that election years are associated with greater likelihood of agency downgrade.

A finding that  $\beta_1 > 0$  or  $\beta_3 < 0$  would be contrary to Hypothesis 1 regarding opportunistic PBC effects, but would support Hypothesis 2 regarding partisan PBC effects. Any possibility of losing (gaining) right-wing incumbents and their investor-friendly policies increases (decreases) agency concerns and agency tendencies to downgrade (upgrade) sovereign creditworthiness.

In equation (1), the term,  $\lambda D$ , takes on three possible values related to three expected electoral outcomes agencies might have at the time they review their sovereign rating for country  $i$ : (1) if  $\lambda D = 1$  then agency expectations are that the right-wing will win on election day; (2) if  $\lambda D = -1$  then agency expectations are that the left-wing will win on election day; and (3) if  $\lambda D = 0$  then there is no clear agency expectation either of a right- or left-wing victory on election day—it is a “close call” at the time they review the rating for upgrade, downgrade or continuation at the current level. We interact  $\lambda D$  with  $ELEC$  and  $ELEC * RINC$  to permit examination of rating change tendencies under different partisan incumbent (right-wing or left-wing) and different agency expectation scenarios (likely right-wing victory, likely left-wing victory, and close call expectations).

Hypothesis 3 predicts increasingly negative agency rating changes (downgrades) with the right wing base case of likely re-election ( $\beta_1 + \beta_3 + \beta_4 + \beta_5$ ) yielding the smallest downgrade tendency, followed by a greater downgrade tendency for a right-wing incumbent facing a close call ( $\beta_1 + \beta_3$ ), and the greatest downgrade tendency for a right-wing incumbent facing likely ouster by a less investor-friendly left-wing challenger ( $\beta_1 + \beta_3 - \beta_4 - \beta_5$ ). Hypothesis 4a predicts for elections with left-wing incumbents that partisan PBC effects will dominate. Accordingly, it predicts increasingly upgrade tendencies with the left-wing base case of likely re-election ( $\beta_1 - \beta_4$ ) yielding the smallest upgrade tendency, followed by a greater upgrade tendency for a left-wing incumbent facing a close call ( $\beta_1$ ), and the greatest upgrade tendency for a left-wing facing likely ouster by a more investor-friendly right-wing challenger ( $\beta_1 + \beta_4$ ). Hypothesis 4b predicts that opportunistic PBC effects will dominate. Accordingly, we should see increasingly greater downgrade tendencies as we move from base case to close call to switch scenarios involving left-wing incumbents.

Ideally, we would measure the agency expectation term,  $\lambda D$ , with data from reliable pre-election polls made in country  $i$  on or about the day that an agency announced results from its periodic review of country  $i$ 's rating. This raises two problems. First, reliable pre-election polling data in developing countries are not widely available. Indeed, aside from Shultz (1995), we know of only one other published study on PBCs using pre-election polling data, Alesina et al.'s (1997) study of partisan preferences, electoral expectations and US unemployment. Second, even if reliable polling data were available for developing countries holding elections in the 1980s and 1990s, there is another problem related to agency rating reviews and announcements. While rating reviews happen periodically, agencies do not necessarily announce completion of their reviews, so we do not always know when during the year they took place. Indeed, it is typical for agencies to announce rating reviews in cases when they are likely to change

rather than maintain the rating. Thus, information about when ratings are actually reviewed in relation to elections, is lacking to the extent the ratings under review are likely to be maintained at present levels.

We deal with these two measurement problems as follows. We assume that, whenever agencies make their reviews during election year  $t$ , they do so with the possibility of revising their assessments if initial expected electoral outcomes start varying substantially with subsequent changes in voter sentiment closer to election day. With the assumption, we then use the election-day electoral results as a proxy for agency expectations, at the time of their rating review in year  $t$ . We construct  $\lambda D$  by noting the election-day victor, the victor's partisan orientation, and the victor's final margin of victory for each election in our sample. The victory margin is defined as the difference in percentage points between the winning and second-place (runner-up) candidates. Thus, a right-wing victor winning by a substantial margin on election day results in  $\lambda D = 1$ , while a left-wing victor by substantial margin on election day results in  $\lambda D = -1$ . We classify an election as a close call resulting in  $\lambda D = 0$  where, regardless of the victor and the victor's partisan orientation, the victory margin is less than 3%.

### *Data Sources and Sampling*

We collect several types of data. First, we collect data on presidential elections held during the 1987–2000 period using the World Bank's Database of Political Institutions ("DPI") version 3 (World Bank, 2001), which is described in Beck et al. (2001). The DPI provides comprehensive information through 1997 on election dates, electoral systems, electoral competitiveness, and candidate partisan orientation. We exclude parliamentary systems to avoid the problem of endogenously timed elections, and include only competitive elections (as indicated in the DPI).

Our empirical analysis relies on identification of the partisan (left-wing versus right-wing) orientation of electoral candidates, particularly incumbent (government) candidates. DPI, IFES and Polisci.com (2002) databases provide information on the partisan orientation of candidates, including characterization of their parties as left-wing, right-wing or otherwise-oriented. Beck et al. (2001) explain the criteria used for this DPI categorization. Using IFES and Polisci.com databases, we apply the same criteria to ascertain preliminary classifications for post-1997 elections not covered by the DPI. Our right-wing categorization includes incumbents identified as either right-wing or centrist under the criteria, since both categorizations require basic protection of investor interests. Our left-wing categorization includes incumbents identified as the same under the criteria.

For the seven macroeconomic control variables measured in levels and changes in levels in equation (1), we collect annual data from 1986 to 2000 using the World Bank's World Development Indicators (WDI) (World Bank 2002), and from Standard & Poor's Ratings Services (S&P 2001, 1999b), which provide information on defaults on US-dollar denominated sovereign bond issues during the period of study.

Bloomberg International (2002) on-line sources provide information on agency ratings from 1987–2000. We sample only from ratings published by five Nationally Recognized Statistical Rating Organization (NRSRO) agencies active in the sovereign risk rating industry during the 1980s and 1990s: (1) Duff & Phelps Credit Rating Company; (2) Fitch Investor Services-International Bank Credit Rating Company, also known as Fitch-IBCA; (3) Moody's Investor Services; (4) Standard & Poor's Ratings Services; and (5) Thomson Bank Watch. This sampling rule follows previous research (McNamara and Vaaler, 2000; Block and Vaaler, 2004; Vaaler and McNamara, 2004).

It also follows from US Securities and Exchange Commission rules, and US legislation and regulation that require at least one and usually two NRSRO agency ratings for most debt offerings (SEC, 1994).

Ratings in our final sample range from AA<sup>-</sup> = 13 to C = 0 on the ordinal scale described above, and exhibit a mean of 5.5 (approximately BB<sup>+</sup> = 6) and standard deviation of 2.9. This sample mean is important. BB<sup>+</sup> = 6 is the highest “junk” rating. Upgrade by even one ordinal level (BBB<sup>-</sup> = 7 or higher) vaults a sovereign into the “investment” grade and typically lowers the cost and increases the availability of capital substantially. Our final sample comprises 391 ratings, for which we have information sufficient to measure the rating level on December 31 of year  $t$ , and the year-to-year change in rating from December 31 of year  $t - 1$  to December 31 of year  $t$ . These ratings are published by NRSRO agencies for sovereigns from 19 developing countries holding 39 presidential elections from 1987–2000 and representing all six scenarios listed in Table 1.

## 5. Results

### *Preliminary Results*

Descriptive statistics for our sample are presented in Column 1 of Table 2. They present a profile of rated developing countries in the 1980s and 1990s consistent with most expectations. They have mid-range per capita incomes (\$4180.50) with higher (compared to industrialized countries) inflation rates (68%), and external debt (40.9%), and fiscal deficits (1.76) as percentages of GDP. About 12% of our sample ratings are from countries that recently defaulted. Seventy-one percent of our ratings come from countries with right-wing incumbents, a result that may reflect a slight sampling bias in our data. Right-wing sovereigns with more investor-friendly policies may be more likely to seek agency ratings in the first place. Twenty-one percent of our ratings are published during election years. We, therefore, have a substantial portion of the sample available for estimation of various individual and interactive PBC effects on agency rating change tendencies.

Results from estimating agency the likelihood of rating levels with equation (1) are presented in Column 2. They yield coefficients on the *MACRO* control variables generally consistent with findings from previous research (Cantor and Packer, 1996a, 1996b; Larraín et al., 1997; McNamara and Vaaler, 2000; Afonso, 2003) and intuition. Five of seven macroeconomic variables exhibit the expected sign, and in four of these five cases they are significant at  $p < 0.05$  or  $p < 0.01$  levels. Overall, these results conform with intuition. Sovereigns with lower GDP growth, higher foreign debt, trade deficits and, in particular, recent experience with default, tend to have lower agency ratings. With evidence that our control model provides substantial explanation of agency rating levels in equation (1), we then take first differences of the dependent variable and continuous macroeconomic variables, and re-estimate using variations of equation (2).

Prior to reporting results from these regression results, we report noteworthy results from several preliminary analyses of agency rating changes. Of the 391 agency rating change observations in our sample, 29% are non-zero; of the non-zero changes, 65% are of only a single ordinal level in either direction. Agency rating changes exhibit significantly greater downgrade tendencies in election years. Unconditionally, downgrades occur 19% of the time in election-years versus only 9% of the time in non-election years, difference that proves significant in a one-tailed test ( $p < 0.01$ ).

Similarly, agency rating upgrades occur in 19% of the non-election year observations, but in only 13% of election year observations, again significant in one-tailed test though at a lower level ( $p < 0.10$ ).

When agency ratings do change in election years, the change can be substantial, particularly for right-wing incumbents. The mean change in agency ratings is an inconsequential 0.02, representing a 2% average annual increase/upgrade. This reflects a small but generally positive trend in creditworthiness among rated developing countries from 1987–2000. During non-election years, the change is 0.09, which is not significantly different from overall mean. But, agency rating changes during election years is –0.62, which is less than both the overall mean ( $p < 0.05$ ) and the non-election year mean ( $p < 0.01$ ) in one-tailed tests. In election years, ratings fall nearly 2/3 of one ordinal level, evidence initially supportive of Hypothesis 1 regarding simple opportunistic PBC effects. Given that the mean rating level in our sample (5.5) lies close to the cut-off between investment and junk rating grades, such changes may have substantial economic effects on the cost and availability of capital for developing countries.

A final set of preliminary analyses reveal evidence shifting support from Hypothesis 1 and opportunistic PBC effects on agency rating changes to Hypothesis 2 and simple partisan PBC effects on the same. We partition the agency rating changes based on the partisan orientation of the incumbent facing election. During election years, left-wing incumbents exhibit a slightly higher mean upgrade (0.09 in election years versus 0.08 in non-election years), but the difference is not significant. Right-wing incumbents, however, exhibit stark contrasts with mean upgrades of 0.09 in non-election years, but mean decreases of –0.89, which is significant in a one-tailed test ( $p < 0.01$ ). Partially consistent with Hypothesis 2 regarding simple partisan effects on agency risk assessments, we find that partisan orientation matters in assessing election year agency rating changes with right-wing incumbents, falling on average by almost 9/10 of an ordinal rating level. Again, small changes in ratings can have a substantial impact on the cost and availability of capital, especially since so many of the sovereigns in our sample exhibit ratings close to the cut-off between junk and investment grades.

### *Regression Results*

We next present results from estimation of the rating change control model in Column 3 of Table 2. It is not surprising that the greater noise inherent in first-difference estimates reduces the precision of several of the estimates reported in Column 2, though external debt and GDP growth remain significant and of the expected sign. Indeed, all of the point estimates except inflation are of the expected sign in Column 3.

We introduce the election dummy variable in Column 4 for a regression test of Hypothesis 1 that agencies are more likely to issue downgrades during election years. We confirm results from our preliminary analyses, finding that the probability of a downgrade is significantly greater during election years. Excluding partisan considerations, agencies assess sovereign risks consistent with the general concern that incumbents will electioneer and thereby decrease sovereign creditworthiness in the longer-term. This is consistent with findings by Block and Vaaler (2004), who found the similar downgrade tendencies for election-year ratings (measured in levels rather than in first differences) in a sample of developing countries and elections from 1987–98.

Consistent with Hypothesis 2, however, we find in Column 5 that partitioning rating change tendencies based on the partisan orientation of the incumbent party matters significantly. Right-wing incumbents are more likely to get an upgrade in non-election

years, but significantly more likely to be penalized with a downgrade in an election year. We do not find evidence of a symmetrically likely upgrade when left-wing incumbents face potential defeat by right-wing challengers. These multiple regression results confirm the unconditional tests reported above. One possible explanation for the lack of an election-year upgrade for left-wing incumbents, is the countervailing negative effect of elections predicted by opportunistic PBC considerations. An alternative explanation may pertain to agency expectations about the likely outcome of voting on election day.

We assess the evidence regarding this second explanation, as well as support for Hypotheses 3 and 4 with results from estimation of equation 3, which includes additional terms related to agency expectation of electoral victory measure,  $\lambda D$ . Column 6 reports results from estimation of this final equation. Relevant linear combinations of coefficients reported at the bottom of this column reveal hierarchical results providing some support for Hypothesis 3. For right-wing incumbents, the likelihood of a downgrade is greatest when right-wing incumbents face likely defeat by left-wing challengers. The point estimate for this right-wing switch scenario linear combination ( $-1.1413$ ,  $p < 0.01$ ) indicates a greater likelihood of downgrade than when the election is a close call ( $-0.9217$ ,  $p < 0.01$ ), although the difference is not significant at commonly acceptable levels. But the downgrade tendencies for the right-wing switch scenario ( $-1.1413$ ,  $p < 0.01$ ) are significantly greater ( $p < 0.05$ ) than downgrade tendencies for the right-wing base case scenario ( $-0.7022$ ,  $p < 0.01$ ), thus we find partial support for Hypothesis 3's prediction about mutually reinforcing effects of opportunistic and partisan PBC considerations. Interestingly, we find that right-wing incumbents are more likely to receive election-year downgrades, even when their re-election appears near certain, a result that highlights agency sensitivity to even the slightest possibility of opportunistic and partisan PBC effects undermining sovereign creditworthiness.

We find clear support for Hypothesis 4a and the dominance of partisan over opportunistic PBC considerations for elections with left-wing incumbents. Election-year upgrades are statistically significant and substantial in the switch scenario where right-wing challengers are likely to oust left-wing incumbents ( $1.4198$ ,  $p < 0.01$ ). When it is a close call scenario, the tendency to upgrade is still statistically significant, but about half as great ( $0.7506$ ,  $p < 0.05$ ). Only in the base case where agencies expect retention of left-wing incumbents will upgrade tendencies become statistically insignificant. The differences between these three linear combinations are significant at commonly acceptable levels ( $p < 0.01$ ), again consistent with Hypothesis 4a's prediction about the dominance of partisan PBC considerations in our integrative framework.

## **6. Discussion and Conclusion**

Results from this empirical study indicate clearly that agencies behave consistently with PBC considerations. This may be of substantial importance for developing countries seeking capital for investment and economic growth while also developing politically. While our results pointed initially to support for simple opportunistic PBC effects on agency risk assessments (Hypothesis 1), these effects ended up showing clear right-wing versus left-wing differences more in line with simple partisan PBC considerations (Hypothesis 2). These simple partisan PBC effects, in turn, appear to be moderated by agency expectations of incumbent chances of success on election day, a moderating effect that again implicates opportunistic PBC considerations. In the end, we conclude that opportunistic and partisan PBC considerations may be mutually reinforcing for elections with right-wing incumbents. For elections with left-wing

Table 2. Descriptive Statistics and Ordered Probit Regression Results<sup>a</sup>

<i>Estimator</i> → <i>Coefficient</i> ↓	(1) <sup>b</sup> Descriptive statistics	(2) Ordered probit rating level	(3) Ordered probit rating change	(4) Ordered probit rating change	(5) Ordered probit rating change	(6) Ordered probit rating change
<i>EXTBAL</i> [ $\psi_1$ ]	-0.310 (5.016)	-0.0262 (0.0194)	0.0417 (0.0343)	0.0325 (0.0317)	0.0529 (0.0340)	0.0551 (0.0341)
<i>EXTDEBT</i> [ $\psi_2$ ]	0.409 (0.171)	-12.4153** (1.0752)	-6.95 × 10 <sup>-11</sup> ** (1.14 × 10 <sup>-11</sup> )	-6.85 × 10 <sup>-11</sup> ** (1.45 × 10 <sup>-11</sup> )	-7.66 × 10 <sup>-11</sup> ** (1.24 × 10 <sup>-11</sup> )	-7.41 × 10 <sup>-11</sup> ** (1.20 × 10 <sup>-11</sup> )
<i>PCI</i> [ $\psi_3$ ]	4180.5 (2664.16)	-0.0004 (0.0002)	0.0002 (0.0008)	0.0003 (0.0008)	0.0004 (0.0008)	0.0002 (0.0008)
<i>GDPG</i> [ $\psi_4$ ]	1.820 (3.347)	0.0803* (0.0157)	0.089* (0.0230)	0.0633* (0.0318)	0.0650* (0.032)	0.0717* (0.0350)
<i>INFL</i> [ $\psi_5$ ]	68.047 (281.17)	-0.0004** (0.0000)	0.0001 (0.0002)	0.0002 (0.0002)	0.0004 (0.0003)	0.0004 (0.0003)
<i>FISCBAL</i> [ $\psi_6$ ]	-1.764 (2.867)	-0.0236 (0.0449)	0.0602 (0.0552)	0.0761 (0.0531)	0.0765 (0.0593)	0.0671 (0.0534)
<i>DEF</i> [ $\psi_7$ ]	0.123 (0.329)	-2.3477* (0.1829)	-0.2419 (0.1750)	-0.2889 (0.1794)	-0.1262 (0.1446)	-0.0080 (0.1263)
<i>ELEC</i> [ $\beta_1$ ]	0.214 (0.411)			-0.4491** (0.2125)	0.4117 (0.3089)	0.7506* (0.3306)
<i>RINC</i> [ $\beta_2$ ]	0.708 (0.455)				1.3066** (0.4188)	1.4509** (0.3938)
<i>RINC*ELEC</i> [ $\beta_3$ ]					-1.1984** (0.2468)	-1.6723** (0.2964)
<i>ELEC*AD</i> [ $\beta_4$ ]						0.6692* (0.1603)
<i>RINC*ELEC*AD</i> [ $\beta_5$ ]						-0.4497 (0.2831)

N	391	391	391	391	391
Pseudo $R^2$	0.381		0.120		0.129
$\beta_1$ : Left inc.					
$\beta_1 + \beta_3$ : Right inc.					
$\beta_1 + \beta_3 + \beta_4 + \beta_5$ : Right inc., base case scenario					
$\beta_1 + \beta_3$ : Right inc., close call scenario					
$\beta_1 + \beta_3 - \beta_4 - \beta_5$ : Right inc., switch scenario					
$\beta_1 - \beta_4$ : Left inc., base case scenario					
$\beta_1$ : Left inc., close call scenario					
$\beta_1 + \beta_4$ : Left inc., switch scenario					

$\beta_1 + \beta_3 + \beta_4 + \beta_5$ : Right inc., base case scenario  
 $\beta_1 + \beta_3$ : Right inc., close call scenario  
 $\beta_1 + \beta_3 - \beta_4 - \beta_5$ : Right inc., switch scenario  
 $\beta_1 - \beta_4$ : Left inc., base case scenario  
 $\beta_1$ : Left inc., close call scenario  
 $\beta_1 + \beta_4$ : Left inc., switch scenario

<sup>a</sup> Column 1 reports means (standard deviations) for our sample of 391 sovereign ratings published on December 31 of each year from 1987–2000 by five NRSR agencies for the following countries holding 39 presidential elections over this period: Argentina, Bolivia, Brazil, Bulgaria, Chile, Colombia, Ecuador, Indonesia, Mexico, Paraguay, Peru, Philippines, Poland, Russia, South Africa, Tunisia, Uruguay, and Venezuela. Column 2 reports coefficient estimates (standard errors) from ordered probit regression of sovereign rating levels (*RATING*) on a set of macroeconomic and related control right-hand-side variables commonly used in previous research (e.g., Cantor and Packer, 1996a, 1996b; McNamara and Vaaler, 2000). Columns 3–6 report results from ordered probit regression of year-to-year changes in sovereign ratings (*MRATING*) on year-to-year changes in macroeconomic and related controls and additional right-hand-side variables related to opportunistic and partisan PBC considerations. Not reported in Columns 2–6 are estimates for agency, country and year dummies included in every specification. All estimates are based on robust standard errors with adjustments for ratings clustering on agencies.

<sup>b</sup> Results reported in Columns 2–6 are robust to: (1) Re-estimation with elections in the first quarter of year  $t$ , re-classified as year  $t-1$ ; (2) Re-estimation with inclusion of additional dummy controlling for post-selection change in agency rating during year  $t$ ; and (3) Re-estimation with “close call” elections defined as those with a victory margin of less than 5% or 10%.

\* Indicates significance at 5% level ( $p < 0.05$ ). \*\* Indicates significance at 1% level ( $p < 0.01$ ).

incumbents, partisan PBC considerations apparently dominate over any counteracting opportunistic considerations.

These findings clearly indicate that PBC theory implicates a much broader range of “voters,” who do not cast ballots in the formal sense, but who are nonetheless in a position to impose on developing countries and their governments substantial financial costs or benefits, depending on which partisan incumbents and policies are ascendant in election years. These findings, thus, extend previous PBC research, both by addressing the perspective of outside actors and by integrating opportunistic and partisan PBC considerations. Our findings of some hierarchy in results for right-wing incumbent elections consistent with Hypothesis 3, suggest the value of taking such an integrated approach. The clear hierarchy of results for left-wing incumbents consistent with Hypothesis 4a suggests the ultimate dominance of partisan PBC factors, at least with respect to agencies and their election-period ratings. This finding is consistent with results reported by Vaaler et al. (2005) indicating the same dominance of partisan over opportunistic PBC considerations in pre-election bond spread trends involving left-wing incumbents.

These effects linked to the pricing and availability of capital for developing countries have been under-emphasized, if not completely ignored, in the PBC literature. In an era of financial globalization, such effects may be substantial, particularly as competitive elections involving candidates with distinct partisan orientations and policies become increasingly frequent events among nascent democracies in the developing world.

Our findings raise several broader questions about electoral partisanship and the apparent cost it may entail for developing countries, occasionally swinging from right-wing to left-wing governments and policies. Agency ratings are increasingly important to developing countries seeking to finance growth by attracting mobile investment capital in a global economy. Downgrades portend substantial increases in the cost of capital, and perhaps, other negative reactions such as reduced capital inflows, and in extreme cases, even capital outflows. If incumbent political leaders in developing countries are prone to creating partisan business cycles—as a growing literature suggests they are—and if outside observers such as agencies are aware of that potential, then partisanship might have effects on the development of countries more than had been previously assumed.

This research invites further exploration of related PBC issues. As our conjecture above suggests, partisan concerns of other relevant third parties and their perceptions of changed risk promise additional interesting insight. Other key individuals may be similarly affected by elections, including banks making loans, individuals and institutions trading bonds or managing investment portfolios, and firms engaged in foreign direct investment in developing countries. Deeper understanding of the composition of such fluctuations before and after elections will also contribute to future PBC-related research.

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