



## **Can Credit Rating Agencies Affect Election Outcomes?**

- **It shows that credit rating agencies can have a significant effect on election outcomes**
- **These effects are identified by exploiting exogenous variation in municipal bond ratings due to Moody's recalibration of its scale in 2010**
- **It is found that incumbent politicians in upgraded municipalities experience an increase in their likelihood of reelection and their vote shares**

The long-standing debate about the power of credit rating agencies (CRAs) has recently received additional attention due to the 2007–2009 financial crisis and the 2010–2012 European sovereign debt crisis. In 2012, Leonardo Domenici, a member of the European Parliament, claimed, “The debt crisis in the Eurozone has shown that CRAs have gained too much influence, to the point of being able to influence the political agenda.” The general public also believes that banks and financial institutions have “too much power” as indicated by poll results (e.g., Gallup 2011). Regulators and academics have expressed similar concerns (Zingales 2015).<sup>1</sup> In this paper, we address the question of whether CRAs’ actions influence the electoral prospects of incumbent politicians. We examine this question by studying the effects of municipal bond ratings on election outcomes in the United States.

We identify these effects by exploiting exogenous variation in municipal bond ratings due to Moody’s recalibration of its Municipal Rating Scale in 2010. Before the recalibration, Moody’s had a dual-class rating system. Moody’s Municipal Rating Scale measured distance to distress (i.e., how likely a municipality is to reach a weakened financial position that requires extraordinary support from a higher level of government to avoid default) among municipal bonds. In contrast, Moody’s Global Rating Scale measures expected losses (i.e., default probability and loss given default) among sovereign and corporate bonds. This dual-class rating system persisted for decades. In April–May of 2010, Moody’s recalibrated its Municipal Rating

Scale to align it with the Global Rating Scale. The recalibration resulted in upgrades by up to three notches of nearly 18,000 local governments (i.e., bond issuers), corresponding to bonds worth more than \$2.2 trillion in par value (nearly 70,000 bond issues). According to Moody's (2010), the recalibration simply unifies all bond ratings into a single scale and "does not reflect an improvement in credit quality or a change in our opinion [about the issuer]." Thus, the rating upgrades due to the recalibration are uncorrelated with changes in the municipalities' intrinsic credit quality or with local and nationwide economic conditions.

The variation in ratings due to the recalibration provides us with a unique opportunity to examine the impact of the municipalities' ratings on election outcomes. It allows us to isolate the effects that are exclusively due to changes in municipal bond ratings from other confounding effects. The local governments that were not affected by the recalibration but experienced similar economic conditions to those of recalibrated local governments can be used as a control group. The control group includes local governments that were already properly calibrated vis-à-vis the Global Rating Scale and local governments without a Moody's rating or bonds outstanding.

We employ a difference-in-differences approach to compare the election outcomes between upgraded local government units (the treatment group) and nonupgraded local government units (the control group) around the recalibration in 2010. Specifically, we study how this shock to municipal bond ratings affects the winning odds and voting share of the incumbent political party in the 2010–2012 elections relative to the 2006–2009 elections at the county level or (in the case of House elections) congressional district level. The recalibration affected bonds issued by counties and districts, as well as by other local government units within a county or district, such as cities, townships, school districts, and special districts (e.g., public utility districts). Thus, we aggregate the changes in ratings to the county or district level. Our (continuous) treatment variable is the fraction of local government units in each county or district whose outstanding bonds were upgraded due to Moody's recalibration.<sup>3</sup> The regressions also include county and state-year fixed effects to capture local economic conditions and any source of unobserved county-level heterogeneity.

We find that incumbent party candidates are more likely to be reelected in upgraded counties vis-à-vis nonupgraded counties. The incumbent effect is pervasive across different types of elections. Our results for Senate elections show that a 10 percent increase in the fraction of upgraded local governments (which corresponds to about one standard deviation) in a county is associated with an increase of 1.7 percent in the likelihood of the incumbent winning the election in that county. For House elections, a 10 percent increase in upgraded local government units in a

district is associated with a 3.9 percent increase in the likelihood of an incumbent being reelected. We find similar evidence in executive elections. A 10 percent increase in the fraction of upgraded local governments in a county is associated with an increase in the likelihood of the incumbent winning the election (at the county level) of 4.3 percent in gubernatorial elections and 5.5 percent in presidential elections. The corresponding increase in the likelihood of reelection is 26 percent in the case of mayoral elections in California. We also find evidence that incumbent party candidates receive more votes in upgraded municipalities vis-à-vis nonupgraded municipalities, but the estimates are less precise due to the noisier nature of these tests. Voters do not seem to differentiate which level of government is responsible for the positive news, as municipal bond rating upgrades increase the chances that the incumbent party's candidate is reelected in all types of elections. Overall, the results suggest that voters respond to positive news on the municipalities' credit quality by choosing continuity rather than change.

We find evidence that ratings affect election outcomes through three channels. First, we show that municipal bond ratings affect elections directly through their impact on the candidate's political discourse and the voter's perception of the incumbent's quality.<sup>4</sup> We study this hypothesis by exploring cross-sectional variation on Google searches for the term "credit rating" around the elections. An increase in Google searches for this term suggests that more people in the state are paying attention to ratings and might have their opinion about the candidate influenced by the local government upgrades. Our estimates indicate that the results are stronger in states with a surge in ratings-related Google searches. In addition, we explore the timing of the effects of ratings on election outcomes. While changes in the political discourse and voter's perception about the incumbent's quality (direct effect) can affect elections immediately, improvements in local economic conditions due to fiscal policy (indirect effect) take time to materialize and thus will affect election outcomes with a lag. Consistent with a direct effect of ratings on election outcomes, we find a significant effect in the year of the recalibration.

Second, we show that the recalibration also affects elections directly through wealth effects in voters' holdings of local municipal bonds. Investors that held upgraded municipal bonds experienced an appreciation in the value of their portfolios in 2010, which translates into an increase in their overall wealth. According to Cornaggia, Cornaggia, and Israelsen (2016), a lower bound for the postrecalibration cumulative abnormal return of upgraded bonds held by retail investors is approximately 50 basis points.<sup>5</sup> They estimate that households held approximately \$1.87 trillion in municipal bonds in 2010. Therefore, municipal bond retail investors experienced an increase in wealth of about \$9 billion. These voters' positive wealth shocks can in turn affect

their voting behavior. We test this idea by exploring a feature of the municipal bond market: municipal bonds are exempt from state income taxes if the bond buyer is a state resident. This feature creates stronger incentives for ownership of municipal bonds in states with higher income tax rates. We find that the impact of the municipal rating upgrades on elections is more pronounced in states with higher income tax rates, which are plausibly those with higher local ownership of municipal bonds.

Finally, we find that ratings affect elections indirectly through local economic conditions. Municipal bond markets are an important source for local governments to finance the construction and maintenance of infrastructure and other public projects. When municipalities face a shock to their credit supply, the quantity and quality of local public goods provision may change and therefore affect voting behavior. The recalibration generates cross-sectional variation in ratings across local governments, which significantly affects local governments' financial constraints and debt capacity. Easier and cheaper access to financing can have important effects on local economic conditions, especially when governments face significant financial distress, such as during the 2007–2009 Great Recession. We find that upgraded municipalities experience a significant decrease in their borrowing costs in the municipal bond market after the recalibration (Cornaggia, Cornaggia, and Israelsen 2016). This decrease in borrowing costs allows local governments to increase bond issuance and spending (or reduce taxes). These changes in fiscal policy had positive spillovers to the private sector (Adelino, Cunha, and Ferreira 2017). We find that upgraded municipalities experience an increase in private employment and income. We establish a link between the improvements in local economic conditions and election outcomes using instrumental variable methods. We show that increases in the amount of bonds issued due to the recalibration significantly improve the incumbent's likelihood of winning the election. Our evidence supports the view that government spending and economic conditions play an important role in voting behavior, in particular by increasing the incumbent's chances of winning the election.

To paint a detailed picture of the political impact of CRAs, we investigate whether the effect of municipal bond ratings on election outcomes differs across political parties. We find that Democratic incumbents improve their electoral chances significantly more than Republican incumbents do. However, the differences in election outcomes do not seem to be driven by differences in fiscal policy. Consistent with Ferreira and Gyourko (2009), we do not find significant differences in local level policy reactions to the rating upgrades. Both Democratic and Republican incumbents experience a decrease in bond yield, followed by an increase in municipal

bond issues and a subsequent increase in government spending, private employment, and income. Our results indicate that both parties implement similar policies, but the electoral benefits of these policies depend on the type of voter and their preferences.

We perform a series of robustness checks to guarantee that our results are not driven by the lack of comparability between treatment and control groups or the definition of the treatment variable. First, we find that (Standard and Poor's) S&P ratings of treatment and control groups follow similar trends both before and after the recalibration. If the recalibration by Moody's reflects changes in underlying credit quality, the S&P ratings on this sample of bonds would also be affected. Second, we find that house prices of treatment and control groups follow similar trends around the recalibration. This finding helps to rule out the possibility that the 2007–2009 financial crisis and the subsequent recovery may have affected the treatment and control groups differently. Third, our results are also robust to the use of a sample of urban counties. Finally, we consider two alternative definitions of our treatment variable: a dummy variable that takes a value of one when the county has at least one upgraded issuer, and a treatment variable weighted by the dollar amount of bonds issued. The results are robust to these alternative definitions.

Our research contributes to three strands of the literature. First, we contribute to the literature on the effect of economic conditions on election outcomes. In particular, there is a long-standing debate about whether voters penalize or reward budget deficits and government spending. The literature has traditionally provided evidence of a negative correlation between government spending and election outcomes (e.g., Niskanen 1975; Peltzman 1993; Matsusaka 2004). More recent research finds that voters reward government spending (e.g., Levitt and Snyder 1997; Akhmedov and Zhuravskaya 2004; Veiga and Veiga 2007; Sakurai and Menezes-Filho 2008; Jones, Meloni, and Tommasi 2012; Litschig and Morrison 2013). In addition, Bagues and EsteveVolart (2016) show that exogenous good economic conditions (driven by a cash windfall brought by a lottery in Spain) have a positive effect on the incumbent's vote share. We provide causal evidence of the effects of government spending and economic conditions on voting behavior. Whereas the literature studies the election effects of cash windfalls, we show that voters reward deficit-financed spending. Our findings also raise the possibility of “pay-for-luck” in the electoral process as the ratings recalibration is outside of the politicians' control.

Second, we provide a novel link between credit ratings and political elections. There is vast evidence that ratings affect corporate actions (e.g., Kisgen 2006; Kisgen and Strahan 2010; Baghai, Servaes, and Tamayo 2014; Begley 2015; Almeida et al. 2017). Previous research has shown that municipal bond ratings affect municipalities' financing and economic condition

(Adelino, Cunha, and Ferreira 2017; Cornaggia, Cornaggia, and Israelsen 2016). To the best of our knowledge, we are the first to provide causal evidence that CRAs can influence incumbents' chances of reelection.

Finally, we contribute to the literature on the effects of political partisanship on public policies and voting behavior. The literature provides evidence that the legislative power is highly partisan (Besley and Case 2003; Lee, Moretti, and Butler 2004). However, Ferreira and Gyourko (2009) find no evidence of a partisan influence on local government policies. We contribute to this literature by showing that political partisanship does not affect how incumbent politicians react to a reduction in municipalities' financial constraints. Democratic and Republican politicians implement similar government spending increases and tax cuts following the recalibration even in nonclosely contested elections. However, our results suggest that Democratic voters react more favorably to a fiscal expansion than their Republican counterparts.