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Does economic diversification moderate the relationship between collaborative governance and organizational performance?

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Abstract

The relationship between collaborative governance and performance is complex. There is contradictory evidence regarding the effectiveness of collaboration as a managerial strategy to improve organizational performance. The level of diversity in the context in which the collaboration unfolds could be an explanation for contradictory findings. This study uses economic diversification as a measure of the change in diversity of the collaborative context and tests whether municipalities with economies that depend more on different industries benefit more from inter-municipal partnerships to bring international aid to their communities. The study uses data from 215 Ecuadorian municipalities between 2007 and 2013. Results confirm that inter-municipal partnerships, a type of collaborative governance, it is an effective managerial strategy and that economic diversification positively moderates the effect of collaboration on organizational performance.

Collaboration is a recurrent topic of study in public management. Public organizations choose to collaborate with other interdependent organizations as a last resource strategy to deal with complex issues (Gray, 1989; Kettl, 2015; O'Toole Jr, 1997; Thomson & Perry, 2006). While scholarly work promoted collaboration as an effective strategy to improve performance (Andrews & Entwistle, 2010; Leach, Pelkey, & Sabatier, 2002; T. Scott, 2015; Ulibarri, 2015), there are instances in which collaboration does not always produce satisfactory results (Kretser, Beckmann, & Berger, 2018; Reilly, 2001). This study argues that diversity in a collaborative decision-making setting can moderate the effects of collaboration on organizational performance.

Previous research has established propositions to understand the relationship between context, process, and structure of a collaboration with different levels of performance (Ansell & Gash, 2008; Bryson, Crosby, & Stone, 2006, 2015; Emerson & Nabatchi, 2015b; Emerson,

Nabatchi, & Balogh, 2012). While the importance of managing conflict between diverse partners in a collaborative has been considered as a key factor in simulation studies (Robertson & Choi, 2012; T. A. Scott, Thomas, & Magallanes, 2018) and theoretical frameworks (Emerson & Nabatchi, 2015a; Emerson et al., 2012), there has been little research using longitudinal data to uncover the effect of diverse partners in a collaborative setting over-time.

This study uses a theoretical framework with a comprehensive conceptualization of collaboration to test whether collaborative governance is an effective strategy to acquire international aid. Specifically, I use the Emerson et al. (2012) framework to study collaborative governance over-time. In fact, this study tests whether inter-municipal collaboration is an effective strategy to acquire international aid after the Ecuadorian national government devolves the responsibility to manage international aid to subnational governments.

I also study the potential effect of diversity in a collaboration. This study uses economic diversification as a way to represent *changes* in economic diversity in a given municipality over-time (Siegel, Johnson, & Alwang, 1995). When the municipal gross domestic product depends more on several economic activities, chances are that these municipalities have a community with higher degree of diverse interests in comparison to municipalities with economies that depend only on a couple of industries. This analysis uses the International Standard Industrial Classification of All Economic Activities (ISIC) to determine the level of economic diversification in a given municipality.

Using data from Ecuadorian municipalities between 2007 and 2013, this study first tests whether inter-municipal partnerships to acquire international aid is an effective strategy and, second, whether economic diversification positively moderates the level of international aid that an inter-municipal partnership acquires. Results confirm that collaborative governance between

municipalities is an effective strategy to acquire international aid after subnational governments become accountable for managing international aid. Moreover, municipalities with higher economic diversification have the potential to bring more international aid. In other words, economic diversification positively moderates the relationship between collaborative governance and organizational performance.

From Cooperation to Collaborative Governance in the Public Sector

Using the words cooperation and collaboration in the same sentence is not a tautology. Scholars have clarified that collaboration does not imply cooperation and vice versa (Gray, 1989; Thomson & Perry, 2006). Individuals cooperate based on self-interest, a concern about the other part, but not necessarily focusing on the welfare of the group (Axelrod, 1984). The perception about future interactions between individuals is a key difference between cooperation and collaboration (Axelrod, 1984; Gray, 1989). While in a cooperation the future interactions could be less important than current outcomes (Axelrod, 1984), in a collaboration individuals are part of a problem domain, define processes and structures with a common purpose, and try to avoid poor outcomes for the partnership taking into account future interactions (Gray, 1989). Collaboration implies a governance process to coordinate interactions between partners (see Bryson et al., 2015). As a result, this study applies the following definition of collaborative governance to uphold conceptual consistency in the field: *“processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies (...) in order to carry out a public purpose that could not otherwise be accomplished.”*(Emerson et al., 2012).

Emerson et al. (2012) define collaborative governance more broadly in comparison to previous definitions (Ansell & Gash, 2008; Bryson et al., 2006). Their conceptualization includes

instances where public organizations collaborate within the same sector as well as collaboration across sectors. Moreover, (Emerson & Nabatchi, 2015b) link their definition of collaborative governance with performance. Their methodology focuses on different units of analysis, performance levels, and the distinction between process and productivity components on performance. This is important because their contribution avoid new conceptualizations of collaboration and it is an invitation to measure the performance of a collaboration in terms of its outputs, outcomes, and adaptations to have a more comprehensive analysis of the productivity of a collaborative performance.

In an attempt to better understand the effects of collaborative governance on organizational performance, scholars have tested propositions from theoretical frameworks using different methodological approaches. For example, Ulibarri (2015) provides empirical evidence about the positive effects of collaboration dynamics' components from the Emerson et al. (2012)'s theoretical framework through a cross-sectional study. On the other hand, T. A. Scott et al. (2018) use computational modeling (simulations) to study the complex relation between collaboration dynamics and stakeholders' agreement in a context where data shortcomings make difficult to disentangle the effect of collaboration on performance over-time.

Scholars have established that the relationship between collaborative governance and performance is a complex one. Not only because of governance complexity (Moynihan et al., 2011), but also because the assessment of performance may depend on the choice of performance measures (see Nicholson-Crotty, Theobald, & Nicholson-Crotty, 2006). In fact, there are some examples in the literature showing contradictory results about the effects of collaborative governance on performance. For example, collaborative governance produces better water quality (T. Scott, 2015), but cannot reach environmental conservation targets

(Kretser et al., 2018). Interestingly, Park, Krause, and Feiock (2018) found that collaboration increases efficiency to fund energy efficiency projects, but only until the costs of investing in collaboration surpasses its benefits. Their results suggest that the relationship between collaborative governance and performance has an inverted-U shape.

A revision of theoretical frameworks to study collaborative governance highlights conflict management as one the major components to manage collaborations (see Bryson et al., 2015). Scholarly work proposes that public managers need to facilitate agreements and catalyze innovative solutions in a collaboration to improve performance (McGuire, 2006; Torfing, 2016). In fact, Saz-Carranza and Ospina (2010) show how members of a collaboration manage the tension between unity and diversity to have an effective governance. However, conflict generates costs (Franks et al., 2014) and collaborating with diverse organizations might increase the potential to innovate but also the cost of managing the collaboration. In fact, the relationship between collaboration and performance might have an inverted-U shape because the cost of managing collaboration outweighs the benefits of innovation (Hottenrott & Lopes-Bento, 2016). Thus, there is a necessity to provide empirical evidence to know whether investing resources to enhance diversity in collaborations that might foster innovative solutions is an effective strategy, indeed, to improve organizational performance.

While the level of buy-in and agreement does not improve in collaborations with more heterogeneous groups (see T. A. Scott et al., 2018), the effect of diversity on the performance of a collaboration needs further analysis. On the one hand, theoretical propositions and empirical evidence stay that more cohesive groups generate lower conflict, higher level of trust, increase productivity, and improve performance (Ford & Ihrke, 2016, 2018). On the other hand, more diverse groups do not necessarily imply high levels of conflict and conflict management in

collaborative governance can generate added value with agreements that satisfy most of the stakeholders (Robertson & Choi, 2012). As a result, understanding the effects of diversity on the performance of a collaborative is important for public managers to design governance processes that could foster the performance of their organizations.

Expected Effects of Collaboration and Diversity

With the objective of generating an integrative framework, Emerson et al. (2012) (1) define collaboration as an ‘umbrella term’ for different applications and settings, (2) include several components of collaborative governance to focus in some of them or study them all, and (3) propose causal pathways between collaborative governance and performance. Using the propositions of this theoretical framework I argue that public organizations can improve organizational performance more when collaborating with other organizations to achieve a common goal, and that the effect of collaboration on performance is greater under diverse contexts.

A diverse context in a collaboration implies (1) various potential actors to represent their interest in the collaboration, (2) several points of view that might enrich the discussions to find better solutions for the collaboration, and (3) high level of agreement based on mutual understanding and a common purpose.

There are at least three conditions under which collaborative actions, in a collaborative decision-making setting, can improve organizational performance: high level of buy-in, reciprocity, and integrative leadership. First, organizations ‘*fail* into their role in the collaboration’ (Bryson et al., 2006), meaning that the interdependence between organizations from the same problem domain does not warranty the best collaborative actions if the participant organizations do not commit to the collaborative process (Ansell & Gash, 2008). Second, long

term collaborations are based on norms of reciprocity and trust (Thomson & Perry, 2006) which reduces the costs to overcome collaborative hurdles. Third, the participants in a collaboration have to answer the call of impersonating leadership roles to accomplish the goal of the collaboration, to build interpersonal relations among the members of the collaboration, and to adopt change to improve strategic decisions while taking into account the diversity of actors and the governance process in place (Fernandez, Cho, & Perry, 2010). Thus, given previous scholar evidence and propositions, the first hypothesis in this study is the following:

Hypothesis 1: Collaboration has a positive effect on organizational performance.

Each of the three after mentioned conditions for collaborative actions to improve organizational performance are enhance in diverse contexts. Emerson et al. (2012) consider that the collaborative process is not a linear sequence but cyclical. However, the iterative interactions depend on the type of participants. As a result, in a more diverse context, the level of buy in, reciprocity, and integrative leadership need to be evolving and improving over-time for the collaboration to operate effectively. In fact, empirical evidence from the literature in conflict management suggests that diversity can cause, in a first stage, emotional conflict which is negatively associated with performance, but also, diversity causes task conflict, in a second stage, which has a positive effect on performance as long as a group can manage their differences (Jehn, 1994; Jehn, Northcraft, & Neale, 1999; Olson, Parayitam, & Bao, 2007). Accordingly, the second hypothesis in this study can be articulated as:

Hypothesis 2: Diversity positively moderates the effect of collaboration on organizational performance.

International Aid Policy

International aid policy in Ecuador is ideal to study collaborative governance for three main reasons. First, the Ecuadorian national government devolved the responsibility to seek for international aid funds to subnational governments at the end of 2011 (NCC, 2011). As a result, some municipalities decided to form inter-municipal partnerships to joint efforts to find and apply together for international aid funds. Second, the Ecuadorian economy transitioned to the group of lowest priority to receive international aid from the international community in 2011 given its per capita gross national income (GNI) in 2010 (DAC, 2011). Third, the outcome of the inter-municipal collaborations it is clear from the municipal governments' perspective - obtaining more international aid funds-. Thus, a decentralization policy to manage international aid, an exogenous variation to reduce the munificence of international aid funds, and a clear collaborative outcome to achieve are strong reasons to study collaborative governance over-time in this context.

Data

Data for this study come from several Ecuadorian public organizations at the national level. The Ministry of Foreign Relationships and Human Mobility (MFRHM) has kept a database with the amount of international aid reported by donors since 2007. The data is publicly available, but I made an official request to obtain the data at the municipal level between 2007 and 2013. The National Council of Competencies (NCC) has kept an administrative register every time a subnational government partners with one or more subnational governments to fulfill their competencies (responsibilities) since 2011. I made an official request to know all the inter-municipal partnerships registered in Ecuador, classified by the type of policy target they intent to

achieve. This study includes information of inter-municipal partnerships and municipal governments obtaining international aid for their communities between 2007 and 2013.

Additional information to measure economic diversification comes from the National Accounts (ECB, 2019), the rest of socioeconomic variables are official data from the Ministry Economy and Finance (MEF), the National Institute of Statistics and Census (NISC), and the National Electoral Council (NEC). The final database is a balanced panel with 1505 municipal-year observations. Descriptive statistics for the variables used in this research are detailed in Table 1.

[Table 1 about here]

Dependent Variable

The MFRHM database provides international aid funds that donors declared to have transferred to inter-municipal partnerships and/or to municipalities. These two variables represent the measures of organizational performance in this study. Both measures refer to non-reimbursable international cooperation in US dollars.

Independent Variables

The NCC database identifies which municipalities have a partnership with other municipalities to bring international aid to their communities. Since the Ecuadorian subnational governments began to be responsible to manage international aid after the end of 2011, inter-municipal partnerships related with the mission of bringing international aid have been registered since 2012. Thus, the measure of inter-municipal partnership is greater than one if a municipality has more than one partnership to manage international aid, it is equal to one when only has one partnership, and zero otherwise.

Using data for the Ecuadorian national accounts at the municipal (canton) level, I calculated a Blau index to represent the level of economic diversification present in each municipality. Following the International Standard Industrial Classification of All Economic Activities (ISIC), the ECB represents fourteen industries. This study operationalizes diversity with the level of economic diversification present in each municipality with the following formula:

$$\text{Economic Diversification} = 1 - \sum_{i=1}^{14} \rho_i^2$$

where ρ_i is the proportion of each industry in the gross domestic product of each municipality. A high value of economic diversification means that the economy of a given municipality in a given year depends on more industries. As a result, the level of diversity is higher in comparison to the scenario in which the economy of a municipality depends on a couple of industries.

Control Variables

This study includes several contextual variables that can affect the capacity of the municipalities to acquire international aid funds by their own or by using inter-municipal partnerships. First, the analysis below takes into account the decentralization in the management of international aid from the national government to the subnational governments. Second, some municipalities may have more donors interested in supplying international aid in their communities. For that reason, I factor analyzed the number of countries and the number of organizations channeling international aid funds in a given municipality. Third, the level of financial support from the central government varies across time and between municipalities. For that reason, the analysis includes the transferences from the central government as a proportion of the total revenues in a

given municipality and the level of international aid that the central government redirected to the municipalities.

Emerson and Nabatchi (2015a) highlight the importance to acknowledge previous partnerships, socioeconomic conditions, and political dynamics when studying collaborative governance. For that reason, this study includes a variable measuring when a given municipality has another inter-governmental partnership. This is because previous collaborations may increase the chances for collaborations to succeed (Bryson et al., 2006). Further, the size of the economy, the level of poverty, and the population represent socioeconomic variables in this study. Finally, the analysis below takes advantage of a change in the municipal administration during the period of analysis to include whether mayors seeking reelection and/or belonging to the same political party of the Ecuadorian president register a higher level of international aid.

Methods

I examine the level of international aid funds in the Ecuadorian Municipalities between 2007 and 2013 because the availability of international aid funds at the municipal levels starts in this timeframe and the devolution of the responsibility to manage international aid funds from the national to the subnational governments started at the end of 2011. Additionally, the findings below take advantage of an exogenous variation given by the fact that Ecuador passed from lower middle income country to upper middle income country on 2011 after its increment in the per capita GNI in 2010 (DAC, 2011). The exogenous change makes appealing to study collaborative governance and organizational performance in Ecuador since municipalities responded with different strategies to adapt to a less munificence external environment once Ecuador was no longer a priority to receive international aid funds.

All models below use two-way fixed effects regression to analyze within-municipality changes and to include over-time trends that can affect cross-sectional time-series. This is particular important for studying the potential effects of cognitive diversity in the relationship between collaborative governance and organizational performance over-time. Since, the effects of diversity in a collaboration evolves over-time (Milliken, Bartel, & Kurtzberg, 2003), the identification strategy in this study captures this behavior. The equation below derives the main findings for this study:

$$Y_{mt} = \beta_0 + \beta_1 Collaboration_{mt} + \beta_2 Diversity_{mt} + \beta_3 (Collaboration_{mt} \times Diversity_{mt}) + X'_{mt} + u_m + v_t + \varepsilon_{mt}$$

where Y_{mt} = international aid funds in municipality m at time t , $Collaboration_{mt}$ = inter-municipal partnerships adopted in municipality m at time t , $Diversity_{mt}$ = economic diversification in municipality m at time t , and its interaction with $Collaboration_{mt}$ examines the moderator effect on organizational performance, X'_{mt} is a vector of time variant control variables, u_m = municipality fixed-effects, and v_t = a year fixed-effects. Standard errors are clustered at the municipal level and all independent variables are lagged one period, except devolution policy, in the findings below.

Findings

The results to examine the effect of collaborative governance on organizational performance are presented in the first column of Table 2. Inter-municipal partnerships can improve organizational performance. Municipalities with inter-municipal partnerships obtain 27% more international aid in comparison to municipalities without inter-municipal partnerships. The results in the second column of Table 2 are a falsification test to analyze the quality of the data used in this study.

There should not be an association between inter-municipal partnerships and international aid

funds channelized directly to the municipal governments. This relationship does not have a statistically significant result and it appears that inter-municipal partnerships are in fact bringing more financial resources that are result of collaborative efforts.

Interestingly, the results in Table 2 show, at first sight, that there is not a significant relationship between economic diversification and organizational performance. Before continuing with the analysis of the effects of economic diversification in this study, it is worth noting that when there is a high supply of donors in a given municipality, it has a negative effect on the performance of the collaborative. This result implies that when there are plenty international aid resources in a municipality, there are no incentives to collaborate. On the other hand, municipalities with more fiscal dependence to the national government transferences and with more population are positively associated with the level of inter-municipal international aid.

[Table 2 about here]

All model on Table 3 contains an interaction between collaborative governance measure and economic diversification to examine whether economic diversification moderate the positive association between inter-municipal partnerships and collaborative performance, Similarly, Table 3 reports two columns where the first one contains the results of interest in this study and the second one is a falsification test. Again, the results from Table 2 hold and there is evidence that cognitive diversity positively moderates the relationship between collaborative governance and organizational performance. In fact, Figure 2 shows the marginal effect of inter-municipal collaboration on inter-municipal international aid as the level of economic diversification changes. The centered value of the economic diversification index suggest that positively

moderates the effect of collaborative governance on organizational performance. In sum, having a more diverse context for collaboration has the potential to improve more organizational performance in comparison to less diverse contexts.

[Figure 2 about here]

Conclusion

This study contributes with empirical evidence to the theoretical understanding of the role of diversity in the relationship between collaborative governance and performance. The results suggest that diverse contexts have the potential to improve the effectiveness of inter-municipal partnerships to improve organizational performance. By testing the effect of inter-municipal partnerships on acquiring international aid funds, the findings uncover that inter-municipal partnerships are an effective strategy to obtain more resources from the international aid community. Interestingly, municipalities with high levels of economic diversification have more potential to benefit from collaborative governance in comparison to municipalities with low levels of economic diversification.

Municipalities with high levels of economic diversification depend on more industries to generate economic activities. Diverse economic activities could have different interest that aim to be acknowledged through different channels of democratic representation. As a result, inter-municipal partnerships in diverse context are under more pressure to manage the different positions in a partnership. Thus, the conditions for collaborative actions to have a positive effect on organizational performance are exacerbated in a diverse context, leading towards the achievement of better performance.

While the results of this study cannot be generalized to all policy contexts, it provides empirical evidence from a policy area that requires collaboration between organizations. An additional potential limitation of this study is the assumption about diversity. This study represents diversity in a collaboration using a measure of economic diversification. The assumption is that municipalities with high levels of economic diversification have to represent more diverse interest in inter-municipal partnerships in comparison to municipalities with low level of economic diversification. Future studies should evaluate the effects of diversity in the relationship between collaborative governance and performance with a direct approach, reflecting the composition of the collaboration, and across different performance levels to have a more complete analysis of the collaborative performance.

This study offers a longitudinal analysis during a period of time in which collaborating with other organizations could be the rational alternative to follow given the scarcity of resources in the external environment. Future longitudinal studies should try to test the effects of collaboration on organizational outcomes during a period of high munificence to see whether the adage about collaboration - it is only an effective strategy when organizations cannot improve their performance on their own-, holds.

The findings in this study are an initial step to disentangle the effects of diversity on collaborative actions and organizational performance. This is important because managing collaborations with diverse actors is costly. However, if the potential benefits of designing collaborative governance process with diverse actors are larger than the cost, it would translate into better organizational performance. This is more critical when innovative solutions could emerge in collaborations with more diverse partners looking not only for better outcomes to their organizations but also to achieve the common purpose of the collaborative.

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Table 1. Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Dependent Variables				
Inter-municipal International Aid (US\$ thousands)	0.41	5.71	0	203.11
Municipal International Aid (US\$ thousands)	56.32	250.03	0	3527.80
Independent Variables				
Inter-municipal Partnerships	0.12	0.38	0	2
Economic Diversification	0.76	0.15	0.04	0.91
Control Variables				
International Aid Devolution Policy	0.38	0.48	0	1
Donors Supply Index	0.01	1.01	-0.91	9.00
Fiscal Dependency (%)	83.48	12.87	23.61	99.29
Central Government International Aid (US\$ thousands)	99.86	405.39	0	10257.51
Other Inter-governmental Partnerships	0.06	0.23	0	1
Gross Domestic Product (2007US\$ millions)	264.83	1217.82	3.55	16430.98
Extreme Poverty (%)	43.95	16.83	6.5	90.1
Population (thousands)	68.99	234.00	1.63	2531.22
Mayor seeks reelection	0.47	0.50	0	1
Mayor-President co-partisanship	0.16	0.36	0	1

Table 2. The effect of collaboration on organizational performance

	Inter-municipal International aid (logged)	Municipal International aid (logged)
Inter-municipal Partnerships	0.2739* (0.1361)	0.0841 (0.5549)
Economic Diversification	0.9495 (0.6897)	0.9015 (3.6718)
International Aid Devolution Policy	0.0862 (0.2096)	-1.2304 (0.7541)
Donors Supply Index	-0.3255** (0.1186)	0.6301 (0.5570)
Fiscal Dependence (%)	0.0134+ (0.0074)	0.0103 (0.0252)
Central Government International Aid (logged)	-0.0059 (0.0093)	-0.0691+ (0.0351)
Other Inter-governmental Partnerships	0.0014 (0.2096)	0.3095 (0.5699)
Gross Domestic Product (logged)	0.1164 (0.1529)	-1.1732 (0.8302)
Extreme Poverty (%)	-0.0047 (0.0070)	-0.0391 (0.0369)
Population (thousands)	0.0148* (0.0072)	0.0067 (0.0076)
Mayor seeks reelection	0.0495 (0.0581)	0.6256 (0.4564)
Mayor-President Co-partisanship	0.0085 (0.0954)	-0.7237 (0.7452)
Constant	-2.0552* (0.9992)	9.0848+ (4.8370)
Municipality fixed-effects	Yes	Yes
Year fixed-effects	Yes	Yes
Observations	1505	1505
Municipalities	215	215
R ² (within)	0.0657	0.0543

Cluster standard errors in parentheses: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: all independent variables are lagged one period except devolution policy.

Table 3. The effect of collaboration and economic diversification on organization performance

	Inter-municipal International Aid (logged)	Municipal International Aid (logged)
Inter-municipal Partnerships	0.2745* (0.1360)	0.0880 (0.5467)
Economic Diversification	1.1542 (0.7323)	2.1663 (3.6328)
Inter-municipal X Diversification	3.1120* (1.5620)	19.2315+ (10.1894)
International Aid Devolution Policy	0.0806 (0.2087)	-1.2651+ (0.7557)
Donors Supply Index	-0.3244** (0.1183)	0.6372 (0.5575)
Fiscal Dependence (%)	0.0139+ (0.0073)	0.0132 (0.0230)
Central Government International Aid (logged)	-0.0053 (0.0093)	-0.0658+ (0.0343)
Other Inter-governmental Partnerships	0.0037 (0.2094)	0.3235 (0.5666)
Gross Domestic Product (logged)	0.0663 (0.1667)	-1.4831 (0.9444)
Extreme Poverty (%)	-0.0047 (0.0069)	-0.0393 (0.0368)
Population (thousands)	0.0150* (0.0071)	0.0078 (0.0079)
Mayor seeks reelection	0.0492 (0.0578)	0.6239 (0.4535)
Mayor-President Co-partisanship	0.0082 (0.0956)	-0.7255 (0.7430)
Constant	-1.9147+ (1.0129)	9.9532+ (5.1108)
Municipality fixed-effects	Yes	Yes
Year fixed-effects	Yes	Yes
Observations	1505	1505
Municipalities	215	215
R ² (within)	0.0665	0.0580

Cluster standard errors in parentheses: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: all independent variables are lagged one period except devolution policy.

Figure 1. Non-Reimbursable International Cooperation at the Municipality Level (average per year)

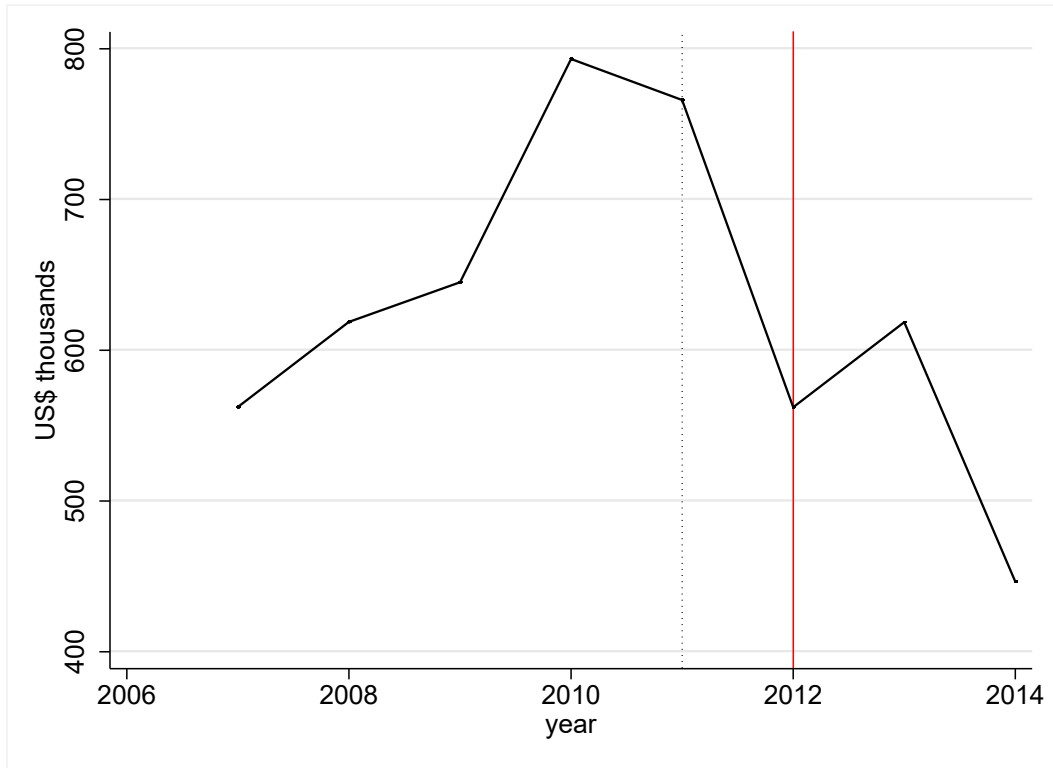


Figure 2. Marginal effect of collaboration on acquiring international aid funds as economic diversification changes

