Declaration

I, the undersigned,

Family Name: Woodhouse
Name: Eleanor Florence
Student ID No.: 1824143
Thesis Title: *Three Essays on Agency and Accountability in Politics and Governance*
PhD: Public Policy and Administration
Cycle: 30th
Student's Advisor: Anthony Michael Bertelli
Calendar Year of Thesis Defence: 2019

Declare under my responsibility:

1) that, according to Italian Republic Presidential Decree no. 445, 28th December 2000, mendacious declarations, falsifying records and the use of false records are punishable under the Italian penal code and related special laws. Should any of the above prove true, all benefits included in this declaration and those of the temporary "embargo" are automatically forfeited from the beginning;
2) that the University has the obligation, according to art. 6, par. 11, Ministerial Decree no. 224, 30th April 1999, to keep a copy of the thesis on deposit at the "Biblioteche Nazionali Centrali" (Italian National Libraries) in Rome and Florence, where consultation will be permitted, unless there is a temporary "embargo" protecting the rights of external bodies and the industrial/commercial exploitation of the thesis;
3) that the Bocconi Library will file the thesis in its "Archivio Istituzionale ad Accesso Aperto" (Institutional Registry) which permits online consultation of the complete text (except in cases of temporary "embargo");
4) that, in order to file the thesis at the Bocconi Library, the University requires that the thesis be submitted online by the student in unalterable format to Società NORMADEC (acting on behalf of the University), and that NORMADEC will indicate in each footnote the following information:

- PhD thesis *Three Essays on Agency and Accountability in Politics and Governance*;
- by Woodhouse, Eleanor Florence;
- defended at Università Commerciale "Luigi Bocconi"

– Milano in the year 2019;
- the thesis is protected by the regulations governing copyright (Italian law no. 633, 22nd April 1941 and subsequent modifications). The exception is the right of Università Commerciale “Luigi Bocconi” to reproduce the same, quoting the source, for research and teaching purposes;

5) that the copy of the thesis submitted online to Normadec is identical to the copies handed in/sent to the members of the Thesis Board and to any other paper or digital copy deposited at the University offices, and, as a consequence, the University is absolved from any responsibility regarding errors, inaccuracy or omissions in the contents of the thesis;
6) that the contents and organization of the thesis is an original work carried out by the undersigned and does not in any way compromise the rights of third parties (Italian law, no. 633, 22nd April 1941 and subsequent integrations and modifications), including those regarding security of personal details; therefore the University is in any case absolved from any responsibility whatsoever, civil, administrative or penal, and shall be exempt from any requests or claims from third parties;
7a) that the thesis is not subject to “embargo”, i.e. that it is not the result of work included in the regulations governing industrial property; it was not written as part of a project financed by public or private bodies with restrictions on the diffusion of the results; is not subject to patent or protection registrations.

Date: 16/04/2019

For my parents, Paul and Geraldine.

Acknowledgements

It seems only fitting to open my acknowledgements with those who form the bedrock of my life. I learnt from my parents, Paul and Geraldine, a love of learning, as well as a curiosity about the world and how to take joy in it. They instilled in me a great sense of what a privilege it is to be able dedicate yourself to learning and how this demands discipline and respect. I could never find the words to thank them enough for their boundless love, guidance and faith in me. I owe so much, too, to my sisters, Alice and Felicity. They inspire me endlessly with their generous hearts, brilliance, *joie de vivre*, sense of justice, tenacity and creativity. I would also like to thank Nathan and Aidan for the happiness, constancy and support that they give to my sisters, and Mum and I; they are both true mainstays of the family. The final of my life's reference points is Michele, whose unconditional support, fierce intellect and unique way of always finding a way to crack me up and stop me over-worrying have made the past decade better than I could ever have imagined. Without you all, none of that which follows would have been possible.

Speaking of making things possible, I would now like to thank my co-supervisors, Tony and Paola, and my Thesis Board member, Tommaso. All three of you have opened doors for me in unique ways and have been so generous with me. Tony, thank you for showing me what it means to be a scholar who is decidedly "all cattle and no hat". Your scholarly insights, faith in me, wry sense of humour and professional vision revolutionised how I saw the academic profession and my own research. You are truly a cornerstone of my academic life. Paola, thank you for helping me to embark on my career as a researcher and providing me with much needed guidance at pivotal points in my professional life. It has been a privilege to collaborate with you and to be welcomed into the world of gender and institutions by such an eminent and gracious scholar. It is empowering work with you and benefit from your vast insight. Tommaso, thank you for always being such an illuminating presence, both in terms of your ever astute feedback on any research question I ask you about and your ever sunny disposition. You have always offered sound and constructive advice at key moments throughout my academic career.

I am lucky enough to have received feedback on the work that constitutes this thesis from a series of fantastic scholars. First, I would like to extend my sincerest thanks to my external reviewers, Professors Carl Dahlström and Peter John, for their feedback. Their insights and council greatly improved the contents of this thesis. Second, I would like to take the opportunity to thank George Krause, Jennifer Selin, Claudia Goldin (for her wonderfully kind supervision and welcome at Harvard, especially), Maristella Botticini, Ross MacMillan, Arnie

Aassve, Ana Catalano Weeks, Johanna Rickne, Olle Folke, Anna Raute, Massimo Morelli, Piero Stanig, Paolo Pinotti, and Moritz Osnabrügge for their guidance. I would like to thank Professor Diego Zancani for his constant support over the past decade and showing me, many years back, what it means to have a true passion for your research and to always strive to hone, improve and nuance how you think about academic questions. I would also like to thank my team at DG EAC of the European Commission for showing me what the practical reality of international cooperation and excellence looks like.

I am very privileged to be surrounded by the most wonderful group of inspiring and supportive friends who have all contributed, in one way or another, to the successful completion of my PhD. From my oldest friends, Juliet, Sophie M. and Sophie P.,[1] who have had to put up with me for decades now and never fail to find new ways to amaze me with their generosity, their steadfastness and their kindness. To Jaya, Katia and Raffaella for being a home away from home ever since our Balliol days and for constantly making me feel close to you even though I am often, physically, far away. To Giulia and Silvia for making my first months in Italy such a joy and for being so patient with my slow quest to "padroneggiare" the language. You contributed in no small way to my ongoing love story with the *Bel Paese*. To Andrea, Angelo, Claudia, Demetrio and Marco for filling our home with mirth, ever-lively debates and, above all, your immeasurable generosity. To Floris, Frances, James Ad., James Ap., Josh, Mattia, Max, Mel, Paul and Sebastiano for making my time in Brussels some of the happiest years I have yet known and for continuing to come to lark around with me in all manner of different countries. To Anna, Axel, Cristina, Dan and Stefano for making what could have been an intimidating period "across the pond" into a year of joy, shared burdens and lasting bonds. To Ali, Daphne, Jenny and Patrick, friends made in the UK who have since shifted stateside, you enriched immeasurably both my time back in the UK and in the USA through your kindness, wit and steadfastness. To Tamaron, my ally in Milan, you made my time here so much more laughter-, deliciousness- and fun-filled. Thank you for sharing Belinda laughs, for your wise listening ear, and for your invaluable guidance. To Mine and Babi, who have been through thick and thin with Michele and I over the past five years of PhD trials and tribulations. We will truly feel incomplete without you and your endlessly generous spirits, passionate debates, and warmth in our lives daily.

Finally I would like to acknowledge and thank the following institutions for their financial support, which enabled and enriched the experience of completing my PhD. Università Commerciale Luigi Bocconi for the scholarship financing the academic years 2014-2018 of my PhD. The Fulbright-Schuman grant board for financing the part of this thesis that was completed during my visiting period at Harvard University in 2016-2017. The Fondazione Invernizzi for their financial support for the academic year 2018-2019.

[1] Each grouping is in alphabetical order. (No section of a thesis is complete without a footnote!)

Abstract

In this thesis I focus on the structural side of modern policy-making, addressing how hybrid governance arrangements and changing agency relationships can affect fundamental features of the democratic process, such as accountability. I examine whether hybrid forms of governance do anything to overcome traditional patterns of distributive politics. I analyse how changes in levels of national electoral accountability affect local public administrator behaviour. I test whether electoral reform improves representative democracy and how it affects the agency relation between politician and party. My findings all point to the importance of institutions in determining governmental outcomes. Equally, they highlight the need to consider the whole democratic process behind a government action; without an understanding of how structures shape individual events or results, little progress can be made in developing generalisable lessons for policy-makers.

Contents

"*...for in most societies, and particularly in democratic ones, ends are often in dispute; rarely are they clearly and unequivocally determined. Nor can ends and means ever be sharply distinguished, since ends determine means and often means ultimately determine ends.*"

Dahl (1947)

Chapter 1

Introduction

In this thesis, I will be examining how accountability and agency relationships, two central features of democratic governance, are affected by changes to the institutions that shape the public-policy making process. As Lynn puts it, "[g]overnance in any country may be defined as the way sovereign power and responsibility are distributed [...] among that country's institutions. How much of the people's sovereign power has been delegated, to which institutions, and under what enabling and constraining conditions?" (Lynn, 2006, p. 142). The questions that I pose here all seek to shed light on practical issues of how power is managed in modern democracies, investigating precisely the 'enabling and constraining conditions' of which Lynn writes and how they interact with their institutional setting. Indeed, my choice of three separate governance tools - a policy, a scandal, and an institutional reform - allow me to examine such conditions from different perspectives, whilst maintaining my focus on how institutions affect the delivery of governance.

My research agenda is built upon the conviction that the whole arc of the policy-making process must be taken into account if one is to contribute meaningfully to our understanding of how governments work. This is in line with Lynn (2006) who argues that a three-dimensional view is required to understand public management and the inner workings of the political machine. Namely a focus on structures and processes (constitutions, laws), craft[1] and the values and norms that constitute the context in which policy-making takes place. I adhere to this vision of how to understand and analyse public administration and the policy-making process, taking into account the political processes that shape the selection of the agents working for the government, the ways and extent to which they are held to account, and the context in which their behaviour is evaluated. Indeed, in this thesis, I focus precisely on these questions, paying particular attention to the 'structures and processes' shaping public organisations, and evaluating whether they encourage optimal outcomes for public welfare. I argue that we must look at the whole democratic process and the interactions between institutions, electoral accountability and broader cultural context that this entails. The findings presented in each chapter of this thesis suggest that institutions and electoral pressures interact to play a central role in shaping government outputs - whether they be public policies or the make-up of the government itself - regardless of the *type* of democracy (Lakeman, 1974; Bogdanor, 1983; Taylor and Johnston, 1979; Blais, 1988) one analyses.

[1]Namely, "...a concern for decisions, action, and outcomes, and for the personal skills needed to perform effectively in specific managerial roles" (Lynn, 2006, p.27).

The analysis of questions concerning agency and accountability calls for the careful consideration of authority relationships between agents and principals. Each of the chapters of this thesis examines a different form of principal-agent relationship, whether it be government official and private partner, politician and public administrator, or party and politician. In each of the cases that I study, I present evidence that supports Carpenter and Krause (2014)'s statement that the "canonical view of principal-agent relationships is incompatible with recent developments in organizational economics" [p. 20]. More concretely, I see the increasingly complex ways in which governments enact their policies - for example, the ever-lengthening chains of delegation from sovereign power to point of service delivery (Lynn, 2006, p.143) - as being inextricably linked with an understanding of the principal-agent relationship as seen from a transactional authority perspective. That is to say, an understanding of authority that "rests on the premise of bargaining and mutual exchange [...] between principal and agent" (Carpenter and Krause, 2014, p.8). I understand authority, then, in the same sense as Presthus, namely the "capacity to evoke compliance" (Presthus, 1960, p.86), with this capacity depending upon both the principal *and* the agent, with each reciprocally demanding "sanctioned acceptance" (Simon, 1957) of the other. These kinds of authority relations lie at the heart of the questions posed in this thesis, examining how agency relationships are affected by institutions and changes in the democratic landscape.

In addition to agency, the other focal point of this thesis is accountability, which also requires careful conceptual consideration. Accountability is an infamously elusive notion, meaning many things to many people, but generally being seen as a positive trait for any democracy (Bovens, 2007, p.448). In my work, I will be adhering to the analytical framework developed by Bovens (2007), which provides a simple and concrete way of evaluating accountability, defining it as a precise social relation. Bovens (2007) identifies "an actor, the accountor" and "a forum, the account-holder or accountee", defining accountability as a *relationship* between these two agents, whereby "the actor has an obligation to explain and to justify his or her conduct, the forum can pose questions and pass judgement, and the actor may face consequences" [p.450]. The relational nature of this definition is of the utmost importance for the questions I explore in this thesis. Given that I focus on practical issues regarding the way in which individuals respond to institutional features across a variety of settings, it is essential to have a simple way to identify the conditions that constitute accountability regardless of the types of actors or organisational set-up involved.

As I have laid out above, then, the underlying phenomenon addressed in all the projects that constitute this thesis is how institutions shape governmental relations of power. The choice of topics that the thesis addresses allow me to shed light on a range of causal relationships, but the most important of these is that between principal and agent. Each of the projects reveals the fundamental importance of the incentives put in place for principal-agent pairings in the world of modern governance. We see how electoral incentives for politician-agents profoundly affect the extent to which they respond to their voter-principals' needs in terms of infrastructure public goods provided through partnerships with the private sector. We learn more about how an increase in national accountability affects the degree to which local administrator-agents respond to pressures from their politician-principals in contexts that vary in their degree of corruption. We uncover new gendered facets to the relationship

between politician-agents and voter-principals by examining how gender cultures interact with institutional reforms to impact upon female political representation. The three projects all address this fundamental feature of modern democratic governance, but are able to shed light on different aspects of the principal-agent relationship due to their differing settings and research designs.

The thesis will be structured into three chapters, each of which poses a question about how agency relationships and accountability affect government performance. Each chapter reviews the literature relevant to the individual question being analysed. The chapters are structured in such a way that I examine, first, how public goods are distributed across the electoral map, looking at the broad, strategic picture. Second, I home in on a channel through which the enacting of such governmental strategies can be subverted through imbalances in power between politicians and public administrators. Third, I analyse how these politicians themselves are elected, focusing on how an institutional feature can affect descriptive representation in parliament.

The second[2] chapter examines different institutional and cultural settings, asking how distributive political logics are affected by the form that public service delivery takes. More specifically, I investigate whether the provision of infrastructure through public-private partnerships (PPPs) follows patterns of distributive politics that one would associate with more 'traditional' forms of public service provision. I present evidence that, despite governments exercising very little control over private partners once projects are under way (Heinrich et al., 2009), the manner in which they choose where projects will be sent follows a clear distributive pattern. That is to say, despite the move towards hybrid governance arrangements that came with New Public Management, the electoral connection between policy outputs and governments' electoral aims is still strong. It is more difficult for voters to assign blame or credit for given policy outputs due to these more complex forms of public service delivery, but parties are still able to use them as distributive goods. I find that PPPs are sent more frequently to electoral districts that are aligned with the governing party and that the larger the margin of victory with which the aligned party wins in a given district, the more likely it is to be allocated a PPP. That is to say, PPPs are used to target core districts. Furthermore, I find that the less directly ascribable a PPP is to the government, the less it is used as a distributive good. The fact that these hybrid forms of governance follow the same distributive patterns as more typical distributive goods across different institutional contexts, reveals the ubiquity of parties' strategic reactions to electoral pressures and the irrelevance - in terms of distributive politics - of the *form* that public service delivery takes. Given recent evidence, confirmed in the ascribability finding presented here, that governments' ability to credit-claim for PPPs depends on the extent to which they are seen as 'public' (Bertelli, 2018), the agency relation between government and private partner and the way in which accountability for a project's success is dissipated through the muddying of project ownership leaves open some important questions about the ability of citizens to accurately assign blame for policy outcomes.

The third chapter analyses how a shock in electoral accountability for national-level

[2]The first chapter of the thesis being this introduction.

politicians affects the behaviour of local-level public administrators. Empirically, I use an institutional peculiarity at a specific point in Italian history to explore the relationship between politician and public administrator in a situation of power imbalance. My findings suggest that, in contexts where the bureaucracy is restricted in its ability to act autonomously, malfeasant politicians involved in a corruption scandal are able to use local-level public officials as 'place-holders' whilst they are under investigation. Malfeasant politicians have incentives to maintain their voter base through the administration of electoral favours via local-level bureaucrats if they intend to re-enter politics following involvement in a scandal. Indeed, I provide evidence that the majority of politicians accused of corruption in the investigations do return to politics after the event. The results presented in this chapter highlight two issues faced by all democracies related to the accountability of politicians and administrators. The first, the implications of a power imbalance between the two actors who should, in principle, hold one another to account. The second, how legislators can influence the rules put in place to keep administrators in check, thus weighting the scales in favour of their own ends. In short, this chapter sheds light on how electoral accountability affects the agency relation between the legislative and executive branches of government, revealing how individual behaviours can undermine institutional safeguards even in advanced democracies.

The fourth chapter asks how political institutions (electoral rules) affect the composition of public organisations (the share of female politicians in office) and the agency relation between parties and politicians. I present evidence that proportional electoral rules - as compared to majoritarian rules - increase female political representation. To do so, I use an original within-country research design and dataset, leveraging an electoral reform in Italy in 2005 and the country's multi-level system of government. Delving deeper into the mechanism behind this effect, I present evidence that the strength of this effect depends on the cultural context in which the reform occurs, that the increase in female representation does not come at the cost of quality, and that it may be linked to candidate preferences due to the differing nature of competition under each electoral rule. This chapter underscores the importance of institutions for representative democracy, at the same time revealing the mediating role that contextual features play in how such institutional effects are translated into reality. The agency relation between politician and party also comes to the fore in this chapter, with a discussion of the bargaining process whereby parties select or female politicians select themselves into safe seats more frequently under proportional electoral rules.

In order to be able to explore the questions I have mapped out above, I created three new datasets.[3] I use both domestic and cross-national data, assembling datasets that best suit the research questions I am posing. One of the contributions of this thesis is the creation of these datasets, which I hope will encourage further work on the topics discussed here.

The first allows me to compare distributive strategies across different countries and electoral settings. Here, I geo-code public-private partnerships (PPPs), linking them to electoral districts in 16 low- and middle-income countries and, in turn, enriching this data with district-level margin-of-victory data to be able to ascertain which districts are and are

[3]Each chapter of the thesis describes in greater depth the data as well as the collection and collating methods employed.

not aligned with the national ruling party. The second allows me to explore how public administrators respond to changes in electoral accountability. Here I leverage on the national level of the detailed demographic data I assembled for Italian politicians (used for the analyses in Chapter 4), this time linking provincial-level data on public administration corruption to the national politicians responsible for the administrations in a given district. For this dataset, I undertake a geo-coding exercise, linking provincial-level public administrations with national-level politicians in order to localise the effects of the corruption scandals. A feature of the Italian legal system in the time period under study allows me to identify those national-level politicians who are accused of malfeasance, by using requests from the judiciary to remove immunity from suspected politicians in order to prosecute them. The third of these datasets allows me to examine in a within-country setting - thus holding important cultural, institutional and democratic features constant - the effect of a reform changing the Italian electoral system from a mixed member to a proportional representation system. It includes detailed demographic micro-data on the universe of Italian politicians from all levels of government (municipal, provincial, regional and national) for a period of over 25 years, allowing me to capture the entire arc of politicians' career trajectories. It is further supplemented with candidate and margin-of-victory data for specific election years, allowing me to examine the role of seat type (competitive as opposed to safe) in how the reform affects female representation.

The fifth chapter draws conclusions from the projects laid out above, outlines areas where I intend to build on the analyses in the coming months, and explains how they fit into my broader research agenda.

Chapter 2

New Ways of Delivering Public Goods, Old Ways of Distributing Them

Abstract

This paper analyses whether or not public-private partnerships (PPPs) are used as distributive goods and how a project's features affect its distributive use. My novel geo-coded dataset linking projects involving private investment in public infrastructure to sub-national electoral districts in 16 low- and middle-income countries over 30 years, allows me to undertake a cross-national analysis of how PPPs are distributed. I test three hypotheses, that PPPs are used as distributive goods, that they are targeted at core or swing districts, and that specific features (attributability to the government, in this case) of PPPs mean that they are employed according to different political logics. I find support for my hypotheses: PPPs are used as distributive goods, they are more likely to be found in core districts, and these patterns are reversed when projects are less directly ascribable to the government.

Solo work.[1]

[1] A version of this paper is currently circulating under the name "Public-Private Partnerships, Distributive Politics, and Infrastructure Development". I would like to thank Tony Bertelli and participants at the 2018 Transatlantic Dialogue Conference, APSA 2018 and MPSA 2018 for their helpful comments.

Introduction

Public-private partnerships (PPPs) are an appealing way for governments facing strict budget constraints to deliver infrastructure. Indeed, since the 2008 financial crisis such agreements between government and the private sector have become increasingly popular both for developed and developing countries as fiscal constraints have tightened (World Bank, 2016). Such agreements provide a way to finance large-scale projects that the government may otherwise be unable to provide (Yehoue et al., 2006); simultaneously allowing the government to push forward expenditures (Ball et al., 2001) and to claim credit *ex ante* for projects that may never be completed (Williams, 2017). To date, they have enjoyed sustained support from international organizations, even if concerns about the fit of these privately financed projects with a global agenda on sustainable development are now emerging (UN DESA, 2016).

A deeper understanding of the political dynamics behind the allocation of PPPs for infrastructure in transitioning countries is required if these kinds of financing arrangements are to continue to be encouraged by the international community. Building on an emerging literature that analyses the particular features of PPPs that render them appealing to political agents (Bertelli, 2018; Bertelli et al., 2019) and examines PPPs as instruments in pork-barrel politics (Maskin and Tirole, 2008), I expand extant theory by considering electoral outcomes, distributive phenomena and those characteristics of PPPs that make them more or less suitable for use as distributive goods.

Indeed, I show that, as well as representing a new form of instrument for delivering public services, PPPs also present a new theoretical challenge in that they possess features that differentiate them from other policy instruments used in distributive politics. The involvement of private partners in PPPs makes credit-claiming more difficult for politicians, with projects being less directly attributable to the government. This involvement can also reduce the credit-claim potential of PPPs in certain contexts given the potential - and reputation - for corruption that the intersection between government and business presents. Similarly, the nature of PPPs as contracting arrangements generally used to provide large-scale infrastructure projects means that they are not always seen by voters as credit-worthy; they can, in fact, backfire with voters actively rejecting the public good as unsuitable for their locality. This NIMBYism facet to PPPs also problematises their suitability for credit-claiming and distinguishes them from other distributive goods. Regardless of these problematic features, however, I find consistent evidence that politicians do use PPPs as distributive goods. I provide robust, cross-national evidence that introduce PPPs to the portfolio of policy instruments that are used in distributive politics.

Using panel data estimators, I compare the likelihood of seeing a PPP allocated to a government-aligned or non-government-aligned district. My findings suggest that infrastructure PPPs are indeed targeted. That is to say, first, that there is a clear relationship between being a district aligned with the national ruling party and being allocated a PPP. Second, that PPPs are mostly concentrated in core districts. Third, once assigned, the less attributable a PPP to the government, the less likely it is to be assigned to an aligned district, controlling in all cases for electoral, political and economic features that could affect the allocation of PPPs.

The Characteristics of Distributive Goods

Infrastructure PPPs as Distributive Goods

A first-order question when thinking about PPPs and distributive politics is whether, in fact, these financing arrangements are treated as a distributive good by political agents. I must, then, establish what distributive politics looks like.

I understand a distributive policy to be a "political decision that concentrates benefits in a specific geographic constituency and finances expenditures through generalized taxation" (Weingast et al., 1981, 644). There are two models that have been explored at great length in the debate surrounding how distributive goods are allocated: the core voter model (Cox and McCubbins, 1986) and the swing voter model (Lindbeck and Weibull, 1987). The former argues that vote-maximising parties will concentrate distributive goods in districts where their 'core' voters are, whereas the latter argues that they will allocate such goods to districts with high concentrations of political moderates who are likely to switch their votes according to the particularistic goods offered by the parties ('swing' voters). Dixit and Londregan (1996) generalise these two models, arguing that if parties are equally able to allocate redistributive goods to all voting groups, then they will adopt the same tactic and target those groups with a high concentration of 'swing' voters. Whereas, if the parties differ in their ability to allocate such goods according to their knowledge of a given group, then a machine politics outcome will obtain. Empirical tests of how much each category of voter is targeted have yielded mixed results (see Cox 2009 for an excellent summary).

These models have been enriched by various scholars who argue in favour of conceptualising parties' motivations for distributing targetable goods not only in terms of persuading voters (as in the aforementioned models), but also in terms of voter coordination and mobilisation (Cox, 2009). Once you take these dimensions into account, Cox (2009) argues that the case for parties concentrating their distributive efforts to their core is substantially strengthened. Stokes (2005) counters that parties' own ability to hold voters' accountable for their voting actions (perverse accountability) can change the equilibrium of redistribution, with parties being better able than one might imagine to enforce the 'contract' with their voters and, thus, to reward weakly committed voters for their votes.[2] Nichter (2008), using the same Argentine data as Stokes (2005), bolsters Cox (2009)'s arguments in favour of targeting the core as he posits that parties buy *turnout* rather than *votes* and suggests that Stokes' empirical findings are more in line with a turnout-buying model than a model targeting weak opponents. In short, more recently the literature has moved from focusing on the core-swing dichotomy to honing in on the motivations behind distributive politics, analysing the persuasion-mobilisation relationship. Indeed, there is significant evidence that clientelistic parties seek to both persuade *and* mobilise (Dunning and Stokes, 2007). However, the basic tension between 'core' and 'swing' models remains.

[2]Stokes presents a theory of machine politics that emphasises the importance of a tentacular, granular machine party structure that can monitor voters effectively and that costs more the more voters are middle-class as opposed to working-class, given the need for monitors to live amongst voters. This is an important concept to keep in mind when analysing countries in the process of developing, as are those in my sample.

These models lead me to my first two competing hypotheses, Hypotheses H1.a and H1.b:

H1.a: *"core voter targeting"*: if an electoral district was won by the same party as the national governing party, it is more likely to receive a PPP.

H1.b: *"swing voter targeting"*: if an electoral district was won or lost by a small margin by the same party as the national governing party, it is more likely to receive a PPP.

It is important to note that, when considering distributive goods, what matters for political agents is not necessarily the public good itself, but the credit-claim opportunity that it represents. Events such as highway demonstration projects (Evans, 2004) where politicians can take credit and ownership of a project are essential for politicians looking to show their constituents their efficacy in bringing public goods to their district. Lee (2003) has provided evidence of the importance of credit claim opportunity in how earmarked projects are preferred by House members in the USA, due to their electoral interest. I follow Lee (2003) in her statement that "the method of distributing the funds affects the degree to which parochial considerations predominate" [p.715], but shift my focus outwards to be able to look at cross-national phenomena and to a different form of distributive good provision. With this in mind, it is also important to consider the composition of each electoral district when thinking about credit-claiming opportunities. Indeed, the strength of a party in a given constituency can change the potential for credit-claiming substantially. As (Hirano et al., 2009, p.1469) put it:

> "Who will attend the ribbon-cutting ceremonies for new bridges, schools, hospitals, and libraries? In a heavily Democratic area the politicians will almost all be Democrats, and they will leave no doubt about which party is responsible for the locality's good fortune. In electorally marginal areas, however, half the politicians may be Democrats and half may be Republicans, and the impression is not likely to be so partisan".

This leads me to my second hypothesis, Hypothesis H2:

H2: *"electoral security"*: of those electoral districts where the national governing party has won, those won with the greatest vote margin (core districts) are most likely to receive a PPP.

Credit-claiming and Complex Governance

With complex financing arrangements such as PPPs, where administrative bodies have discretion in terms of contract design and the form that the project's financing structure eventually takes (Iossa and Martimort, 2016), it is especially important to understand the determining forces behind their distribution. Unlike 'traditional' distributive goods, such as earmarked water projects with full public financing (Maass, 1951; Ferejohn, 1974), PPPs are moderated by the bureaucratic bodies that manage them and the private financiers who make them possible. Such intermediary forces can make a difference to how goods are allocated. For instance, Bertelli and Grose (2009) provide evidence that, in the United States, ideological congruence between heads of cabinet of administrative agencies and legislators can have a significant impact on the number of distributive goods being sent to legislators' districts.

I argue that PPPs vary in how much of a credit-claim opportunity they offer to politicians. It is precisely their complex structure that presents the variation in the extent to which political agents believe that voters will attribute credit for the project to the government as opposed to the private partner. There is evidence from advanced democracies that voters have difficulty in accurately assigning both blame (Johns, 2011) and credit (Grimmer et al., 2014). As well as evidence from the Philippines that politicians claim credit for policies they had nothing to do with (Cruz and Schneider, 2017). These patterns are likely to be particularly pronounced in contexts where accurate information about politicians' actions is difficult to come by. Given that I examine low- and middle-income countries that are likely to be characterised by a low quality information environment and that PPPs are complex financing agreements where it is harder than in full public management to trace responsibility (Forrer et al., 2010), I argue that specific features of PPPs will determine how they are mobilized by politicians who wish to create opportunities to claim credit for projects allocated to their districts. It is especially important to understand these kind of phenomena in developing contexts, where it has been shown, in Ghana, for example, that credit-claiming dynamics can lead to the widespread noncompletion of projects (Williams, 2017).

Furthermore, there is evidence from Venezuela that the nature of a particularistic good itself affects the political logic of its distribution. Albertus (2013) analyses the distribution of land transfers as compared to rural infrastructure investment, finding that land was allocated to high competition districts and rural investment, instead, to core districts. The idea being that land grants are both politically and financially costly to redistribute and lock future governments into their continuation. As such, they represent a more credible and valuable promise for swing voters. With my cross-national dataset I aim to shed light on how targeting patterns change according to the distributive tools available to a governing party, looking at distributive politics in varying political and electoral settings to strengthen the credibility of this claim.

The literature on PPPs themselves as distributive goods remains underdeveloped. A rich theoretical literature considers the structure of contracts and the public financing of PPPs, but the political and institutional determinants behind such decisions are understudied. Exceptions do exist. A first is Auriol and Picard (2013) who focus solely on build–operate-and-transfer (BOT) PPPs, studying the effects of different time horizons and revenue raising capacity on governments' propensity to opt for BOTs. A second is Bertelli (2018) who, comparing BOTs to other forms of PPPs, finds that BOTs are preferred over other PPP-types by more future-oriented governments with greater stability and longevity. The crux of the argument here is that differing allocations of control rights across different kinds of PPPs change the perception of the 'publicness' of a project and, consequently, politicians' ability to credit-claim for a given project. A third is Maskin and Tirole (2008), who consider public officials with non-social-welfare-maximising preferences. None of these articles, however, addresses empirically the fundamental question of whether PPPs are treated as distributive goods, for which one needs to see where projects are and are not sent across the electoral map, or can speak to their relationship with electoral outcomes at the district level, as I do in this paper.

One key feature of a PPP that may affect how voters perceive it, is the kind of private

partner who is involved in the financing arrangement. One of the most salient aspects of a company's public image is its nationality. There is a rich literature exploring consumers' preferences for products and companies based on their nationality and, in a range of empirical settings, consumers are found to prefer domestic entities (Knight, 1999; Okechuku, 1994). This is also in line with the psychological literature, which has found that outgroup (foreign) individuals are seen as being more distant, independent of their attitudes or behaviours (Tajfel, 1982; Brewer, 1999). As such, I posit that projects with foreign private financiers will be seen by voters as less directly linked to the government, thus making them less of a credit-claim opportunity for the incumbent. This leads me to my third and final hypothesis:

H3: *"attributability"*: projects with foreign private financiers will be less likely to be targeted at critical districts as they do not represent as much of a credit claiming opportunity for the government.

Distributive Politics in Developing Contexts

Understanding how PPPs are used politically is especially important in developing contexts, such as the ones in my sample, given that these countries generally face strict budget constraints and, frequently, a pressing need for investment in infrastructure for development purposes. Moreover, these countries have been encouraged to invest heavily in public infrastructure and to foster private involvement in such investment. The World Bank describes investment in urban transport infrastructure as "one of the best ways to promote rural development" and private involvement in such investments as a way "to improve management skills, increase operating efficiency, and impose market discipline" (World Bank, 2008). It is also important to note that many large-scale infrastructure projects, such as those in my sample, can *only* be financed with private financing in such settings, due to governments' lack of resources. However, if governments in these contexts are using PPPs as distributive goods, there may be further[3] reason to temper the endorsements given to this form of infrastructure delivery by the international community.

There is a wealth of literature providing evidence that the allocation of public goods is affected by government corruption from high- (Liu and Mikesell, 2014) middle- (Gürakar and Bircan, 2016) and low-income (Delavallade, 2006) countries. It is also widely recognised that corruption tends to be higher in poorer contexts (Mauro, 1995; Keefer and Knack, 1997), therefore one can expect corrupt practices in the allocation of public goods to be more prevalent in developing countries. Such features can affect, in turn, the ability of citizens to assign blame or credit to the government (Cruz and Schneider, 2017). If voters cannot be sure that rules and regulations are being followed by their politicians or civil servants, they may resort to using heuristics that have little to do with actual political agency (Wolfers et al., 2002; Achen and Bartels, 2004). This will become a central part of my strategy for thinking about how voters attribute credit in my analyses.

[3]Studies have shown that investment in infrastructure is not unequivocally positive, and can generate negative spillovers (Puga, 2002; Ottaviano, 2008).

It is important to note that the countries in my sample (see Appendix, Table 2.A.1), despite being classified by the World Bank as low- and middle-income countries (Bank, 2017) are relatively advanced in terms of their democratisation. My measure of democratisation, the *polity2* score (which overall ranges from -10, strongly autocratic, to +10 strongly democratic, Marshall and Jaggers (2002)), ranges only from 6 to 10 for the countries in my sample, with a mean of value of 8.1. These countries, then, if not fully advanced democracies, are well on their way to becoming so. As such, one expects distributive politics, as opposed, for example, to clientelism, to occur. Stokes et al. (2013) providence evidence from the UK and the USA that as countries industrialize and democratize, with populations and average incomes increasing, practices such as vote-buying become less effective and start to disappear, with parties instead turning to other tactics in order to win elections. As Seymour (1915)[p.453-454] puts it:

> "...individual voters were bought with money or presents. Then instead of purchasing individuals the candidate bought whole communities, by entertainments or picnics. The step between this stage and that in which classes and trades are won by promises of legislation is not very broad [...] the forms [of corruption] have changed so absolutely that the very nature of electioneering has been transformed."

In short, I am analysing low- and middle-income countries that are relatively advanced in terms of their democratization. As such I expect my findings to mark a lower bound in terms of identifying patterns of distributive politics as parties are likely to increasingly rely upon credit-claiming in order to influence elections as the country democratizes and industrializes further.

A Theory of PPPs as Distributive Goods

In order to better understand the political economy of PPPs, I aim, first, to establish if PPPs are used by governments as a distributive good. Second, to test competing swing vs. core voter targeting hypotheses. Third, to establish if different *types* of PPPs are used for different political ends. The first two concepts were examined in the previous section. The third concept, instead, requires more theorising.

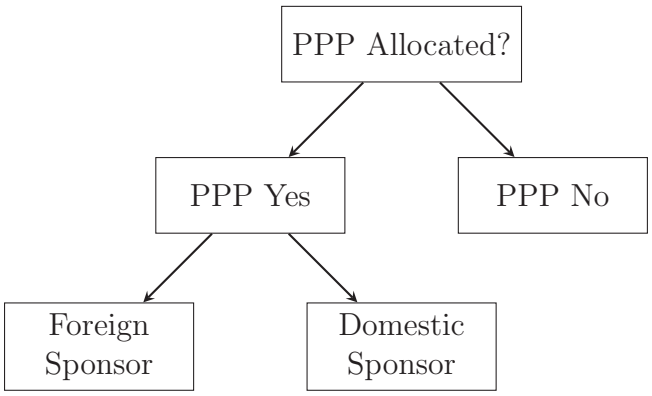
Albertus (2013) has provided evidence that, in the Venezuelan context, features of distributive goods can change the political logic according to which they are allocated. PPPs, for example, are more like the land grants analysed by Albertus (2013) in the sense that, once instigated, they are both politically and financially costly to redistribute and lock future governments into their continuation (Bertelli, 2018). As such, they represent a more credible and valuable promise to voters, as well as allowing parties to prepare the ground for cheaper future electoral promises in the form of complementary services they can pair with PPPs. Thus, they represent a more credible commitment to swing voters "that a party will not simply pay them today and return only when they need another swing vote in the future" (Albertus, 2013, 1087). However, as I do not have data with the counterfactual full public

financing of infrastructure projects, I must focus on a different feature of the PPPs that varies within my sample.

PPPs differ in how much of a credit-claiming opportunity they offer to politicians. They can be more or less 'public'. Indeed, Bertelli (2018) provides evidence that governments are better able to claim credit for infrastructure when their control rights increase the publicness of an asset. Just as they can be more or less 'visible' to voters, with a major physical project such as a new road or energy plant being more salient to a voter as opposed to a telecommunications project that would likewise bring jobs to a district, but would represent less of a daily, physical reminder to the voter of the politician's efficacy in providing his/her district with public goods.

I focus on the degree to which having a foreign private partner associated with a project affects the way in which it is allocated politically. The idea here is that a foreign sponsor works as a distancing device, signalling to the voter that the project has been outsourced and rendering the *private* element - as opposed to the public - of the collaboration more salient. As such, I expect these kinds of PPPs to be used differently by politicians who can expect to reap less of a credit claim benefit from the project. In order to analyse this phenomenon, I must adopt a sequential logic (Bas et al., 2008), looking first at where all type of PPPs are allocated and then, amongst the districts that are allocated PPPs, which of them are assigned projects with foreign sponsors as opposed to domestic sponsors (see Figure 1).

Decision Tree 1. Sequential Logic of PPP Allocation



Sectors

Another source of variation in my data can be found in the sectors of the PPPs that are allocated. I use these sectors as a form of robustness test of my findings about foreign sponsors, given that they speak to the visibility of a project. Certain kinds of PPPs will be more appealing for incumbents for other reasons. For example, more visible infrastructure projects such as bridges, roads or water treatment plants will have ample 'credit-claim' potential

for parties and politicians. The physical presence of such projects and the fact that they are strongly geographically rooted in one place, provides the political agent with plentiful opportunities to remind constituents of his/her effectiveness in working for the district. This is what I understand as 'visibility' for the voter. As opposed to projects such as cellular networks or ICT systems that - despite also creating jobs and serving the local population - are much less visible to the voter and are less electorally salient.

However, a PPP's sector is an imperfect proxy for its visibility in the sense that I do not know enough about district level features to be able to disentangle much-needed infrastructure that, rather than representing a distributive good, represents a government providing the bare minimum to its citizens, from distributive politics. Similarly, the visibility of a project could be construed as a negative feature under certain conditions and I have no way of parsing these out. Where a bridge connecting two previously poorly connected townships maybe thought of as an effective credit-claiming opportunity as it visibly reminds denizens of the government's public service delivery, an airport may serve many citizens but provoke a vocal NIMBY response from certain localised groups that would not serve the politician's credit-claiming interests. Thus, I use the PPP's sector as a way to test the strength of my findings for Hypothesis H3, categorising projects by their level of voter visibility.

Data and Methods

My data covering infrastructure projects are drawn from the World Bank's Private Participation in Infrastructure Projects Database (Bank, 2017). My unit of analysis is the infrastructure project (made up of a "bundle" of agreements), which is observed in the year of financial closure, in a specific district (project-district-election year). My dependent variable and all project-level controls are provided by this source. Summary statistics for these and all variables are provided in Tables 2.1, 2.2 and 2.3.

The World Bank data provides me with detailed information about the characteristics of these infrastructure projects including their sector, sub-sector, type of public-private agreement (e.g. build-operate-transfer or build-own-operate), investment size, duration, sponsors, main revenue source, the type of technology being used by the project and many more. Importantly, the dataset also provides me with a location for the physical site of the project that I use to link the projects to electoral districts. Thus, I am able to both pinpoint projects on the electoral map and capture their specific characteristics that may change how political agents and voters (Angulo et al., 2019) alike view and, respectively, allocate or experience them.

In order to link the infrastructure projects to specific electoral districts, I first geo-locate each of the projects and then map this position onto the electoral map pertaining to the time period when the project was announced. The location data available in the World Bank data is not always complete or entirely accurate, so each location is manually double-checked by researching the project in question, comparing the listed location data with independent information about the whereabouts of the project and updating the location accordingly. Similarly, electoral districts are identified country-by-country and election-by-election to avoid misallocation of a project to a constituency due to redistricting from one election to the next.

Once the correct electoral district is identified, using national statistics offices' data, and linked to the project, I assign district-level election outcomes to each district. These data come from the Global Elections Database (GED, 2018), which provides information on the results of both national and sub-national elections around the world from 1980-2010. When coding who won an election at the national level, I use the second round of voting - where present - and check the GED data against my own research into which party had won in each country.

TABLE 2.1 ABOUT HERE

Once I establish which party won at the national level, I need to see which individual districts had been won by the same party as the national governing power, so as to understand which districts are in line with the national government. Where several parties were governing in a coalition, any district where one of these winning parties won is coded as being of the same party as the government. I will hereafter refer to such districts as 'aligned'. This linking procedure is essential to ascertain the kind of distributive politics that occurs within each country. I then bring in data from the Database of Political Institutions (DPI) (Cruz et al., 2015), the database of Democratic Electoral Systems Around the World (DES) (Bormann and Golder, 2013), the Varieties of Democracy (VDEM) project (Lindberg et al., 2014), and the World Bank (World Bank, 2018b) in order to control for national level features that might affect distributive politics such as electoral system, legislative type, checks and balances, perceived levels of corruption, stage of democratisation, population size and GDP growth.

TABLES 2.2 & 2.3 ABOUT HERE

By way of illustration of my data structure, for the case of Mexico I use official government sources (Instituto Nacional Electoral, 2018) regarding the borders of the various constituencies over time and geolocation technology to pinpoint each project. Thus, for the project "Ensenada Container Terminal" which was brought to financial closure in 1997 and is to be found in the Port of Ensenada (lat. 31.85, long. -116.63), the relevant national legislative election is 1997 and the relevant electoral district for this election and location is Baja California 3. The *Partido Acción Nacional* (PAN) won in this district by a margin of 11% at the 1997 election, so this district was not aligned with the national governing party, which was the *Partido Revolucionario Institucional* (PRI). Some projects span more than one electoral district (e.g. a contract for several electricity generators in a given region) and in these cases I code all relevant districts. Other projects are less physically tied to a single location (e.g. a telephone network, headquartered in a given city but providing services for a whole region or country - such as the case of TelCel in Mexico in 2000. They were granted a merchant agreement for the development of a telephone network, but were headquartered in Mexico City in the *Distrito Federal 5* constituency), in these cases I use the electoral district where the head office of the company was or where the services being provided were concentrated, the rationale being that the distributive good - in the forms of jobs or external investment - would be relevant to these localities.

Once geo-coded and mapped to electoral districts, I am left with 283 infrastructure projects in 16 countries across 25 years (1987-2012), covering 54 separate elections, and distributed across 968 separate districts. By geo-locating projects across the electoral maps of multiple countries and combining these data with detailed data on PPPs, I am able to explore distributive politics on a large scale and can also explore how specific features of these goods affect the logic according to which they are allocated cross-nationally. Having the data set up at the district level also means that I am able to include district level fixed effects that hold historical and cultural features of the different districts constant, a powerful tool when analysing

Dependent Variable

For my main analyses, my dependent variable is a binary variable, *PPP Yes/No*, indicating whether the district in question has been allocated a PPP (1) or not (0). 10% of districts are allocated a PPP.

For my analyses of the credit-claim potential of a project, I create a variable, *International Sponsor*, that captures, amongst those districts that have been allocated a PPP, those that have a foreign sponsor (1) and those that do not (0). On average in my sample each project has 1.44 sponsors (min. = 1, max. = 5). The sponsor who appears most frequently in my sample is SUEZ, a French company that provides water distribution and treatment services to individuals, local authorities, and industrial clients; waste collection and treatment services, including collection, sorting, recycling, composting, energy recovery, and landfilling for non-hazardous and hazardous waste for local authorities and industrial clients (Bloomberg, 2018).

For my robustness tests of the attributability hypothesis (H3), I create a variable, *Visible*, that groups projects into visible (1) and invisible (0) projects, classifying energy (e.g. gas or electricity plants), transport (e.g. roads or airports) and water/sewage (e.g. water treatment or utility plant) projects as visible and information and computer technology (ICT, e.g. telephone or internet network) sector PPPs as invisible (0). In my sample, 51% of the projects come from the energy sector, 20% from the transport sector, 16% from the water and sewage sector, and 13% from the ICT sector. An example of an energy sector (visible) project, is the Miravalles III Geothermal Power Plant in Guanacaste, Costa Rica (for more information see Vallejos Ruiz (2018)). Whereas an example of an ICT sector (invisible) project, is Bulgaria's Orbitel, a wireline telecommunications and internet service provider headquartered in Sofia.

Theoretical Covariates

Focusing on district level features first, my *Aligned* variable (mean = .52, S.D. = .5), on the other hand, is a binary variable that indicates whether the party who won in the district in question is the same party - or coalition of parties - who won at the national level (1) or another party (0). The closeness of the race in a constituency is measured by the absolute difference between the vote share of the winning party in the district and the vote share of all the opposition parties. This gives me my continuous *Margin of Victory* variable (mean

= .22, S.D. = .17). The *District Magnitude* of the constituency in question is controlled for (mean = 3.67, S.D. = 9.04), as is the *Total Votes* (mean = 265747.4, S.D. = 1298242). These measures are all drawn from the GED database.

Second, I control for features of the political environment within each country that may affect politicians' propensity to engage in distributive politics and the conditions in which private partners are operating. These measures are drawn from the DPI and DES databases. In order to capture the stability of the contracting environment, I use the DPI's *Checks and Balances* measure (mean = 4.23, S.D. = 1.53), where more checks imply greater policy stability and more credible commitments on behalf of the government towards its private collaborators. Given available evidence that electoral systems influence the amount of and the way in which public goods are distributed (Persson and Tabellini, 1999; Lizzeri and Persico, 2001; Stratmann and Baur, 2002), I control for electoral rule using the DES's *Legislative Type* variable - majoritarian (1), proportional (2) or mixed (3). Similarly, using the DPI's 'system' variable I create my *Presidential* variable that captures whether or not a country's chief executive is presidential (1) or not (0, i.e. parliamentary or assembly-elected president) in order to account for the phenomenon of 'presidential pork' (McCarty, 2000; Mebane Jr and Wawro, 2002; Hudak, 2014).

Third, I control for features of the socio-economic context within each country that may affect the overall number of PPPs being implemented and the private collaborators' trust of the government. I use the VDEM political corruption index[4] to capture the extent to which corrupt practices prevail in a country, given evidence that corruption makes countries less attractive for foreign direct investment (Wei, 2000; Egger and Winner, 2006) and can decrease growth through a reduced rate of private investment (Mauro, 1995). This constitutes my *Corruption* variable (mean = 4.41, S.D. = 0.16). I also include measures from the World Bank of a country's *Population* (mean = 4.13e+07, S.D. = 4.28e+07) and *GDP Growth Per Capita* (mean = 3.59, S.D. = 4.41) in order to account for the demographic and macroeconomic context in which the national government is operating.

Statistical Models

I employ statistical models that take advantage of both the cross-sectional and panel characteristics of my dataset to evaluate the impact of electoral outcomes on PPP distribution.[5] Between effects are important for my analyses precisely because national governments distribute goods across districts according to aggregate voting behaviours, looking at the country as a whole in a given moment in time. The within effects, on the other hand, inform us as to whether within the same district over time there are any significant differences in how PPPs are distributed. I expect most of my results to be driven by the between effects, precisely because of how governments perform distributive politics, making allocational decisions by

[4]Based on the question: "How pervasive is political corruption?" This measure takes the average of the scores for the public sector corruption index, the executive corruption index, the indicator for legislative corruption and the indicator for judicial corruption (Lindberg et al., 2014).

[5]I exploit the time-series component of my data in robustness tests, the significant variation in the length of the panels in my data restricts the usefulness of these estimations as standalone results.

taking into account the entire country and the political scenario in a given historical moment. However, the partial pooling that comes with random effects is important to take into account any changes that occur over time within districts.[6]

Thus, my preferred model is the complementary log-log (CLL) random effects model. In the CLL model, the conditional probability of the outcome increases more slowly at lower values (Long, 1997), which suits my data given that my dependent variable is a rare event ($PPP = 1$, 9% of the time).[7] The model is specified as follows:

$$Pr(PPP_i = 1|p_{it}, m_{it}) = ... = 1 - exp[-exp(\beta_0 + \beta_1 p_{it} + \beta_2 m_{it})]$$

The conditional probability that a PPP is sent to district i is a function of whether the party that won in the district is the same of that which won at the national level in the most recent election p_{it} and by which margin this party won m_{it}. My main specifications are run with random effects as I want to incorporate district-to-district variability in my estimations, as differences across districts are expected to impact upon the probability of the district being allocated a PPP, my dependent variable. These results are presented in Table 2.4.

Given my data are mixed-level with PPPs observed within districts, which are nested in countries and years, my models are estimated with robust standard errors clustered at the country level to avoid overconfidence due to unobserved heterogeneity within countries. The time effects are taken into account by the panel models (panel variable: district, time variable: election year, within country).

Extensions

I also run between-district models which are important for my analyses precisely because national governments distribute goods across districts according to aggregate voting behaviours. The model is specified as follows:

$$Pr(PPP_i = 1|\overline{p}_{it}, \overline{m}_{it}) = ... = 1 - exp[-exp(\beta_0 + \beta_1 \overline{p}_{it} + \beta_2 \overline{m}_{it})]$$

For the between-district models, I bootstrap standard errors in order to obtain an accurate estimate given that my sample includes very few occurrences of certain districts, which could lead to an imprecise estimation of the standard error (Cameron and Trivedi, 2005, 708). These results are presented in the Appendix, in Table 2.A.2 along with different specifications of the models to test the robustness of my findings.

When I extend my analyses to look at the effect of the nature of the PPP in terms of how directly ascribable it is to the government, I continue to employ a random effects model but estimate using OLS as the dependent variable is no longer a rare event. The dependent variable in these models is *International Sponsor*, which captures, amongst those districts that have been allocated a PPP, those that have a foreign sponsor (1) and those that do not (0)

[6] Using fixed effects, as I do in my robustness tests, is also inadvisable in my case due to the variation in the lengths of the panels available in the estimation sample.

[7] The linear probability model (LPM) which is found in Tables 2 and 3 is not preferred as it requires unreasonable distributional assumptions about the dependent variable.

(*International Sponsor* = 1, 73% of the time). Here, my hypotheses expect: $\beta_1 > 0$, $\beta_2 > 0$ and $Pr(PPP_{ga} = 1|p_{it}, m_{it}, d_i) > Pr(PPP_{nga} = 1|p_{it}, m_{it}, d_i)$.[8] These results are presented in Table 2.5

Results and Discussion

I find support for three of my four hypotheses, providing evidence that PPPs are used as distributive goods. With respect to competing hypotheses **H1.a** and **H1.b**, I find evidence in favour of Hypothesis **H1.a**, the *"core voter targeting"* hypothesis. PPPs are more likely to be sent to districts where the national governing party won. To illustrate with my preferred specification (Model 3, Table 2.4), the predicted probability of being assigned a PPP is 7% for an aligned district as compared to 4% for a non-aligned district, holding all controls variables at their mean values. The nature of my data means that I analyse distributive patterns at the district level, but as (Albertus, 2013, p.1096) notes the fact that studies of municipal-level distributive patterns go in the same direction as state-level analyses gives us reason to believe that district-level results are "indicative of underlying voter group targeting rather than strictly district targeting".

TABLE 2.4 & FIGURES 2.1 & 2.2 ABOUT HERE

With respect to Hypothesis **H3**, I find evidence for my *"attributability"* hypothesis. Amongst those districts that have already been assigned a PPP (of any type), internationally sponsored PPPs are *less* likely to be sent to districts where the national governing party won. To illustrate with my preferred specification (Model 8, Table 2.5), the predicted probability of being assigned an international PPP is 14 percentage points lower for an aligned (86%) district as compared to a non-aligned district (99%) (holding all controls variables at their mean values). My *International Sponsor* results are robust to being estimated with CLL population-averaged, logit and LPM models (see Appendix, Table 2.A.2 Columns 9-16). Once again, it is only in models where I estimate the effect of being in an aligned or non-aligned district on likelihood of being assigned an international PPP with fixed effects that I lose statistical significance. That is to say, when governments are faced with a choice between assigning a more or less government-ascribable PPP to a district, they prefer to send less-ascribable PPPs to non-aligned districts. As can be seen in Table 2.5, the margin with which a district is won plays no role in this phenomenon; governments prefer to allocate more directly attributable project to districts aligned with their party, regardless of the strength of the party in such a district.

TABLE 2.5 AND FIGURES 2.3 & 2.4 ABOUT HERE

[8] Where 'ga' indicates 'government-ascribable' and 'nga' indicates 'non-government-ascribable'.

Another interesting relationship that becomes apparent when analysing the relationship between electoral security and PPP allocation (see particularly Figure 2.1) is that even in non-aligned districts, as electoral security increases so does the likelihood of being assigned a PPP. This gives us some indication that other electoral forces are at work in the allocation of these projects. Looking further into this phenomenon, I find suggestive[9] evidence, indeed, other electoral considerations are at work. I have undertaken analyses taking into consideration the district-level trends of the incumbent. That is to say, I look at whether the margin of victory in a given district increases or decreases for the incumbent as compared to the previous year. I find that if an incumbent increases their margin of victory in a given district, they are *less* likely to send a PPP there, controlling for whether or not the district was won by the incumbent and by what margin. Results are presented in Table 2.6. This provides us with further evidence that governments are using PPPs as distributive goods, as their allocation is sensitive to across-election trends. It demonstrates that governments indeed look to reward districts that have been won with a large vote margin, but not if these vote margins were indicative of a race that was a certain success.

TABLE 2.6 ABOUT HERE

As foreshadowed in the theory section, I also use the sectors of PPPs as a form of robustness test of my findings regarding the attributability of PPPs to the government. I replicate the same analyses I used for the main estimations (Table 2.4), this time using as the dependent variable either visible (water, energy and transport sectors) or invisible (ICT sector) sector PPPs. I find support for the attributability hypothesis in these models too, with more visible projects (i.e. with higher credit claim potential) being more likely to be assigned to aligned districts (see Appendix, Table 2.A.3). Indeed, in Columns 1/8 (dependent variable: visible PPPs) you can see that being in an aligned district is associated with a universally statistically significant and positive coefficient for PPP allocation. Instead, in Columns 9-16 (dependent variable: invisible PPPs) being an aligned district has either no effect on the chance of being a PPP or, in two instances, a negative effect. That is to say, I find more evidence of projects that are not closely ascribable to the government being allocated according to logics that are unrelated to credit-claiming.

It is important to underline that in my analyses I make no assumptions about how 'deserved' the credit-claiming undertaken by the politicians is. Whether or not the political agent had a role in bringing the project to his/her district is irrelevant to my research question - albeit a very interesting topic - as I am interested in establishing, in a cross-national context, that PPPs are used as distributive goods and are allocated according to a consistent political logic. Cruz and Schneider (2017) have convincingly shown, in the context of the Philippines, that regardless of whether or not politicians have any real influence over the allocation of foreign development projects to their districts, they claim credit for them. Moreover, they also

[9]These are preliminary analyses, I have not as yet been able to fully develop the correct model for such estimations.

show that it is the announcement date of the project that matters for election effects, rather than the disbursement of funds or the building of the project itself. This is a key feature of my analysis in that I am looking at projects precisely at the time of their announcement, when politicians are able to claim credit for them without any of the potentially detrimental electoral effects that may come later with delays or cost overruns (Angulo et al., 2019).

Conclusion

Research into the political determinants of PPPs as a way to provide infrastructure is growing (Bertelli, 2018; Bertelli et al., 2019). However, little is currently known about the distributive use of these projects or how politicians operationalise them for political gain. My analysis sheds light on both the political use of PPPs and some of the features of these projects that shape this operationalisation.

My results suggest that PPPs *are* used as distributive goods and that they are favoured by politicians as a tool to target core party constituencies. I also provide evidence that the credit-claim potential of PPPs, as proxied by a PPP being sponsored by a foreign company and by PPP sector, changes how they are used by political actors. PPPs that are more directly ascribable to the government are *more* likely to be allocated to districts that are aligned with the national governing party.

In a context like today's where policy delivery is increasingly complex and takes many forms, a plethora of questions emerge about what this means for democracy (Bertelli, 2016). I have shown that hybrid governance solutions such as PPPs do not sidestep traditional distributive politics. Incumbents use them just as they use other particularistic goods. My findings highlight the need for a closer examination of how the ever more complicated nature of distributive goods affects the way in which they are used.

Figures and Tables

Figures

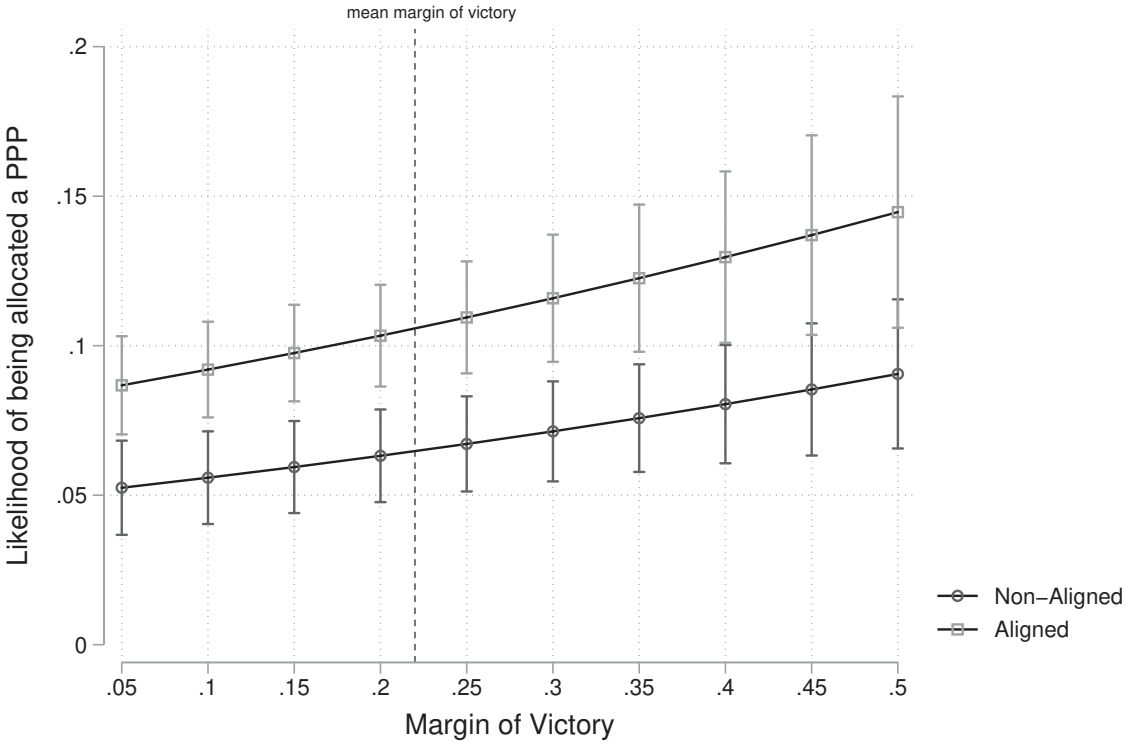


Figure 2.1. Increasing Margin of Victory in Aligned/Non-Aligned Districts on PPP Allocation (CLL, RE - Model 1)

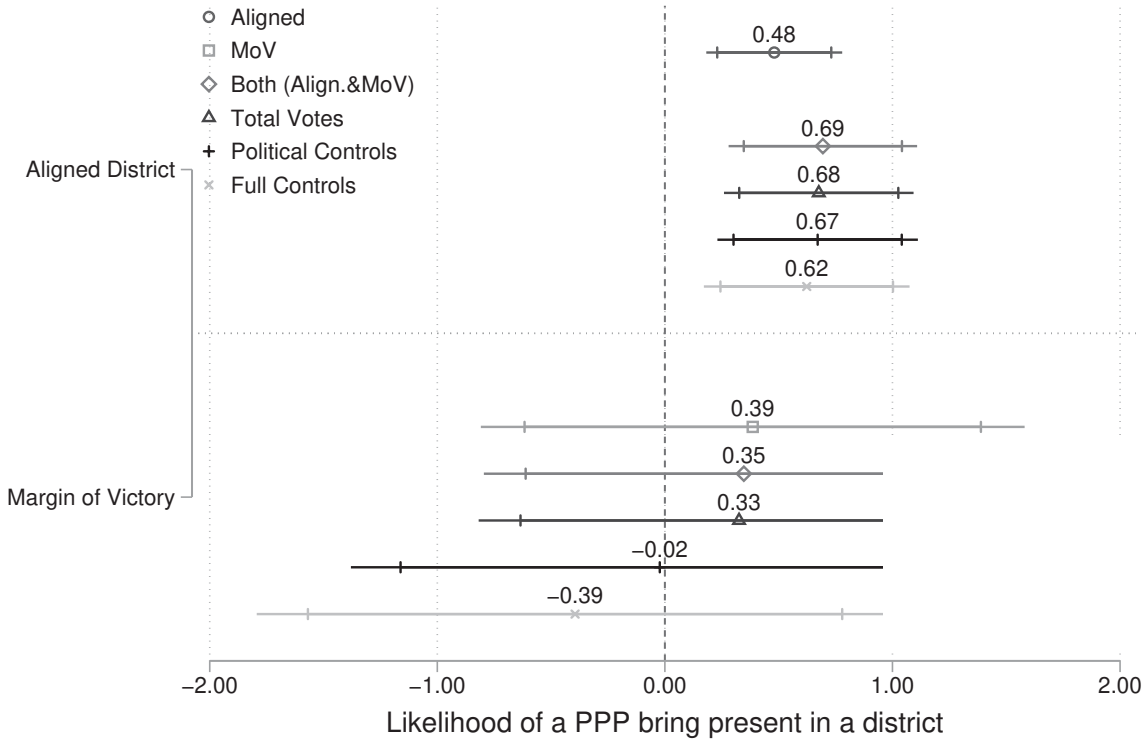


Figure 2.2. Coefficient Plot For Models 1-4 (DV: PPP Yes/No. CLL, RE)

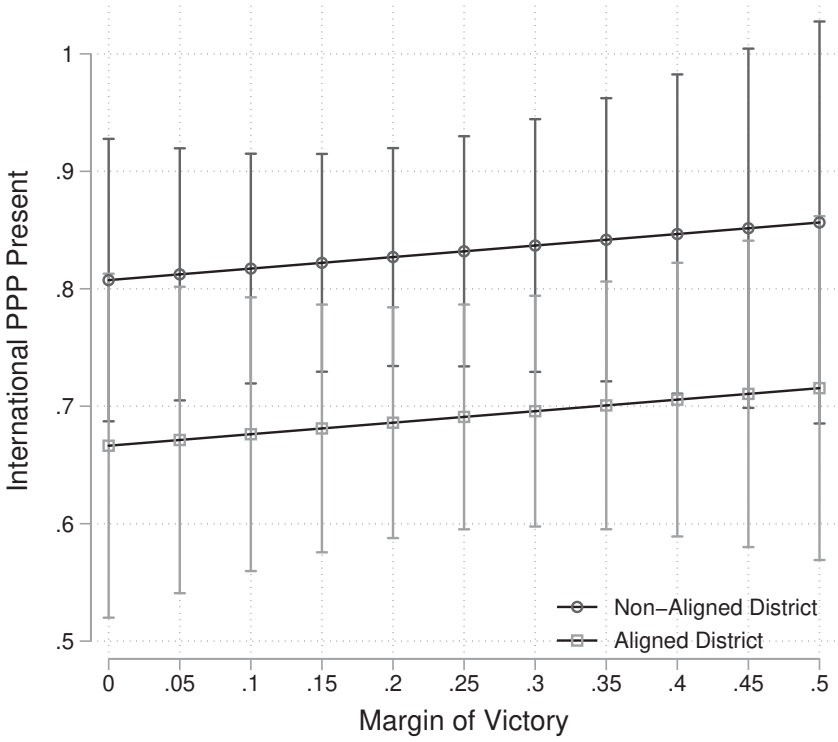


Figure 2.3. Marginal Effect of Increasing Margin of Victory in Aligned/Non-Aligned Districts on International PPP Allocation (CLL, RE - Model 5)

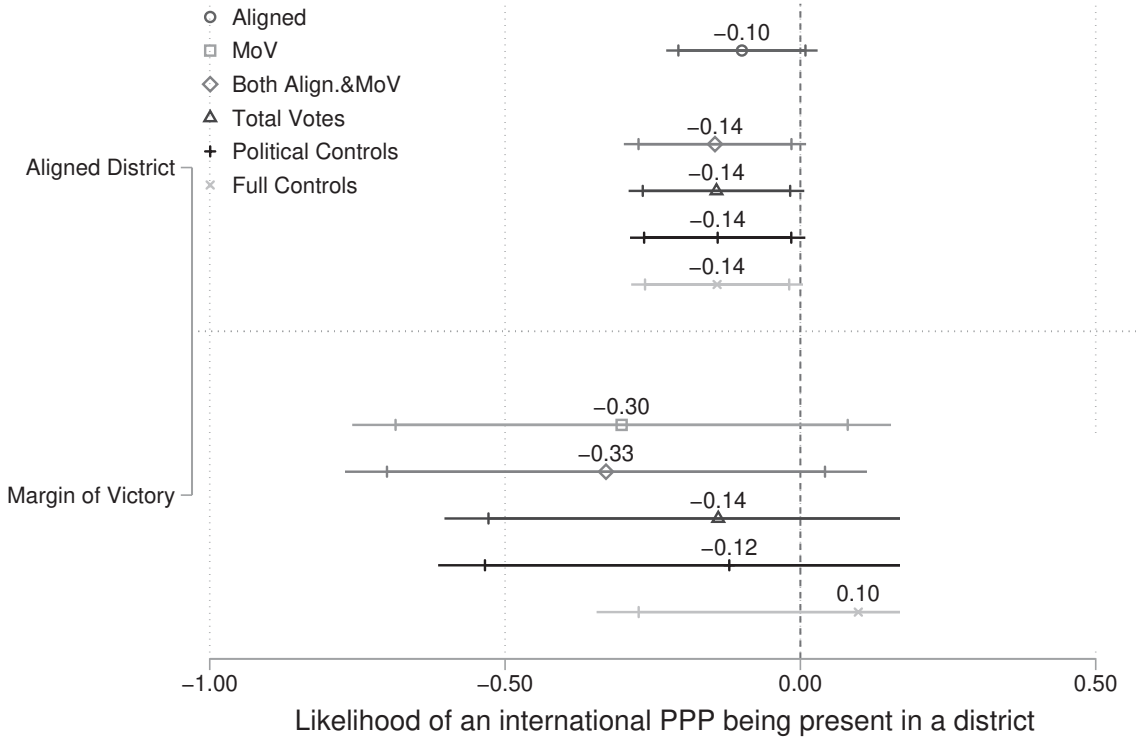


Figure 2.4. Coefficient Plot For Models 5-8 (DV: international. CLL, RE)

Tables

Table 2.1. Summary Statistics: Project and District Level Controls

	District	Marg. Vict.	Dist. Magn.	Tot. Votes	PPP Y/N	Intl. Spon.	Visible	Invisible
Mean	532.11	.22	3.67	265747.4	.08	.70	.11	.22
Median	531.5	.18	1	97426	0	1	0	0
Min.	1	.0000205	0	468	0	0	0	0
Max.	968	1	200	3.66e+07	1	1	6	4
N	2604							

Note: *District* refers to the unique electoral districts within each of the 16 countries present in the estimation sample. *Margin of Victory* refers to the margin of victory with which a given district was won in a specific election. *District Magnitude* refers to the number of seats allocated to a given district in a given election. *Total Votes* refers to the total number of votes cast in a given district and election. *PPP Yes/No* is an indicator variable capturing whether or not a PPP is present in a given district-election-cycle. *International Sponsor* is an indicator variable capturing whether the PPP in question had at least one international sponsor. *Visible* captures how many PPPs in a given district-election cycle came from visible sectors. *Invisible* refers to captures how many PPPs in a given district-election cycle came from invisible sectors.

Table 2.2. Summary Statistics: Country Level Political Controls

	Country	Elec. Year	Checks & Balances	Legis. Type	Presidential
Mean	9.26	1997.03	4.23	2.38	.54
Median	10	1998	5	3	1
Min.	1	1980	2	1	0
Max.	16	2010	8	3	1
N	2604				

Note: *Country* refers to the unique countries present in the estimation sample. *Election Year* refers to the national legislative elections present in the estimation sample. *Checks and Balances* captures policy stability and credible commitments on behalf of the government towards its private collaborators. *Legislative Type* refers to the type of electoral rule present in a given country-election: majoritarian (1), proportional (2) or mixed (3). *Presidential* is an indicator variable capturing whether or not a country's chief executive is presidential (1) or not (0, i.e. parliamentary or assembly-elected president).

Table 2.3. Summary Statistics: Country Level Development Controls

	Country	Elec. Year	Democratisation	Corruption	Population	GDP Growth PC
Mean	9.259985	1997.027	8.094631	.5288584	4.13e+07	3.592816
Median	10	1998	8	.5559874	2.26e+07	3.689037
Min.	1	1980	6	.1493692	230607	-9.750888
Max.	16	2010	10	.7715127	2.09e+08	92.12334
N	2604					

Note: *Country* refers to the unique countries present in the estimation sample. *Election Year* refers to the national legislative elections present in the estimation sample. *Democratisation* captures how democratic/autocratic a polity is (ranging from -10, strongly autocratic, to +10 strongly democratic). *Corruption* is a composite survey-based measure of the perception of corruption in country (a higher score means higher perceptions of corruption). *Population* captures the country's total population. *GDP Growth Per Capita* captures the country's growth rate measured in per capita terms.

Table 2.4. Main Results, Random Effects

VARIABLES	(1)	(2)	(3)	(4)
Aligned	0.566***	0.471**	0.541**	0.498*
	(0.160)	(0.184)	(0.273)	(0.301)
Marg. of Victory	1.367***	0.882*	0.789	1.619**
	(0.437)	(0.489)	(0.666)	(0.706)
District Magnitude			0.0352*	0.0599
			(0.0188)	(0.0370)
Total Votes			-1.01e-08	3.28e-07
			(5.60e-08)	(3.12e-07)
Checks & Balances				-0.133
				(0.0934)
Legislative Type: Prop.				0.333
				(0.478)
Legislative Type: Mixed				-1.545***
				(0.528)
Presidential				0.773
				(0.552)
Corruption				0.141
				(0.849)
Democratisation				0.00430
				(0.213)
Population				4.66e-09
				(4.89e-09)
GDP Growth PC				0.224***
				(0.0628)
Constant	-3.641***	-3.703***	-2.988***	-4.613**
	(0.224)	(0.244)	(0.583)	(2.150)
Observations	2,601	2,189	1,200	1,131
Number of Districts	968	907	654	653
District Controls	NO	YES	NO	YES
Political Controls	NO	NO	YES	YES

Note: The table reports coefficients from CLL random effects regressions of the likelihood of seeing a PPP allocated to a given district. Dependent variable: binary, PPP allocated (1) or not allocated (0). Descriptive statistics for all the variables can be found in Tables 2.1, 2.2 and 2.3. The baseline group for the legislative type variable is majoritarian electoral systems. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 2.5. International Sponsor Results, Random Effects

VARIABLES	(1)	(2)	(3)	(4)
Aligned	-0.737**	-0.556	-0.987*	-1.480**
	(0.370)	(0.438)	(0.515)	(0.686)
Marg. of Victory	-0.998	-1.109	0.581	1.546
	(0.754)	(1.004)	(1.334)	(1.589)
District Magn.		0.0265	0.155***	0.125**
		(0.0203)	(0.0480)	(0.0553)
Total Votes		-1.36e-07	-6.22e-07**	-4.46e-07**
		(1.12e-07)	(1.86e-07)	(2.25e-07)
Checks & Balances			-0.515***	-0.604***
			(0.142)	(0.186)
Legislative Type: Prop.			-0.117	-0.142
			(0.641)	(0.880)
Legislative Type: Mixed			2.753***	1.741
			(0.985)	(1.707)
Presidential			-0.578	1.714
			(0.526)	(1.571)
Corruption				8.937***
				(2.624)
Democratisation				-0.251
				(0.577)
Population				-2.00e-08*
				(1.08e-08)
GDP Growth PC				0.0391
				(0.0870)
Constant	1.049**	1.064*	1.765*	0.415
	(0.431)	(0.584)	(0.986)	(5.025)
Observations	207	178	91	90
Number of Districts	172	147	78	77
District Controls	NO	YES	NO	YES
Political Controls	NO	NO	YES	YES

Note: The table reports coefficients from CLL random effects regressions of the likelihood of seeing a PPP allocated to a given district. Dependent variable: binary, visible PPP allocated (1) or not allocated (0). Descriptive statistics for all the variables can be found in Tables 2.1, 2.2 and 2.3. The baseline group for the legislative type variable is majoritarian electoral systems. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 2.6. Do Trends Explain Allocation of PPPs?

VARIABLES	(1) Negative	(2) Negligible	(3) Positive
Aligned	0.581***	0.587***	0.681***
	(0.165)	(0.164))	(0.182)
Marg. of Victory	1.387***	1.416***	1.398***
	(0.437)	(0.434)	(0.439)
Negative Trend	-0.242		
	(0.571)		
Aligned*Neg. Trend	-0.121		
	(0.632)		
Negligible Trend		-0.113	
		(0.451)	
Aligned*Negl. Trend		-0.277	
		(0.536)	
Positive Trend			0.298
			(0.300)
Aligned*Pos. Trend			-0.682*
			(0.396)
Constant	-3.645***	-3.657***	-3.717***
	(0.227)	(0.228)	(0.242)
Observations	2,601	2,601	2,601
Number of Districts	968	968	968

Note: The table reports coefficients from CLL random effects regressions of the likelihood of seeing a PPP allocated to a given district. Dependent variable: binary, PPP allocated (1) or not allocated (0). No control variables other than those reported are included. A negative trend refers to the incumbent national governing party having won with a smaller margin of victory as compared to the previous election, a negligible trend to a negligible change in vote margin, and a positive trend to a positive increase in the vote margin. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Appendix

Appendix

Tables

Table 2.A.1: List of countries in sample

Countries
Albania
Bolivia
Bosnia and Herzegovina
Bulgaria
Colombia
Costa Rica
Indonesia
Lithuania
Mauritius
Mexico
Moldova
Romania
Solomon Islands
South Africa
Turkey
Venezuela

Table 2.A.2. Robustness Tests, Changing Models

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
VARIABLES	CLL PA	CLL PA	LOGIT	LOGIT	LPM RE	LPM RE	LPM FE	LPM FE	CLL PA	CLL PA	LOGIT	LOGIT	LPM RE	LPM RE	LPM FE	LPM FE
Aligned	0.531***	0.395	0.623***	0.591*	0.0340***	0.0223	0.00957	-0.0121	-0.517***	-1.450**	-1.271**	-1.480**	-0.178***	-0.264**	-0.181	-0.157
	(0.141)	(0.264)	(0.177)	(0.337)	(0.0107)	(0.0160)	(0.0120)	(0.0182)	(0.186)	(0.667)	(0.625)	(0.686)	(0.0650)	(0.108)	(0.154)	(0.159)
Marg. of Victory	1.168***	1.239*	1.473***	1.851**	0.107***	0.0995**	0.135***	0.137*	-0.636	1.592	-1.473	1.546	-0.217	-0.0714	0.120	0.662
	(0.368)	(0.640)	(0.496)	(0.819)	(0.0340)	(0.0482)	(0.0393)	(0.0710)	(0.531)	(1.717)	(1.216)	(1.589)	(0.191)	(0.282)	(0.407)	(0.433)
Observations	2,601	1,131	2,601	1,131	2,601	1,807	207	90	207	207	90	90	207	174	207	174
Number of Districts	968	653	968	653	968	887	172	77	172	172	77	77	172	144	172	144
Full Controls	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES

Note: Columns 1-8: DV = ppp yes/no. Columns 9-16: DV = international sponsor yes/no. Where description reads "Full controls" "YES", all the political and district controls listed in Table 2.4 are included, except for the FE models (Columns 8 and 16) where political features *legislative type* and *presidential* drop out as they do not vary within district over time. Otherwise, no controls are included. For the PA models, between-district models, we bootstrap standard errors with 500 replications. Robust standard errors in parenthesis. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 2.A.3. Robustness Tests, Visible/Invisible Sector PPPs

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Aligned	0.699***	0.628***	0.660**	0.640**	-0.391	-0.433	-1.134**	-1.014
	(0.176)	(0.200)	(0.301)	(0.320)	(0.354)	(0.386)	(0.579)	(0.697)
Marg. of Victory	1.440***	0.983*	0.832	1.635**	-0.441	-1.198	-2.329	-2.016
	(0.465)	(0.521)	(0.662)	(0.722)	(1.046)	(1.191)	(1.649)	(1.739)
District Magn.		0.0310*	0.0489*	0.0610*		0.0500**	0.0823**	0.0884***
		(0.0173)	(0.0292)	(0.0319)		(0.0243)	(0.0361)	(0.0239)
Total Votes		6.80e-09	1.54e-08	-8.85e-09		-5.85e-08	-8.50e-08	-1.96e-07
		(5.43e-08)	(5.15e-08)	(5.68e-08)		(2.07e-07)	(1.45e-07)	(1.20e-07)
Checks & Balances			-0.0120	-0.0622			-0.185	0.000281
			(0.0684)	(0.0854)			(0.230)	(0.228)
Legis.Type: Prop.			0.194	0.315			-0.181	0.344
			(0.429)	(0.479)			(0.835)	(0.854)
Legis. Type: Mixed			-0.877	-1.315**			-2.828***	-2.464**
			(0.572)	(0.536)			(1.028)	(1.229)
Presidential			0.0115	0.707			0.619	-0.482
			(0.418)	(0.526)			(0.579)	(0.815)
Corruption				0.278				1.523
				(0.871)				(1.942)
Democratisation				-0.0949				1.157**
				(0.220)				(0.526)
Population				4.61e-09				1.82e-08**
				(3.81e-09)				(7.20e-09)
GDP Growth PC				0.208***				-0.0134
				(0.0623)				(0.0957)
Constant	-3.864***	-3.929***	-3.387***	-4.076*	-5.971***	-5.548***	-2.799*	-14.48***
	(0.249)	(0.269)	(0.604)	(2.216)	(0.880)	(0.655)	(1.457)	(5.506)
Observations	2,601	2,189	1,206	1,137	2,601	2,189	1,206	1,137
Number of Districts	968	907	672	671	968	907	672	671

Note: The table reports coefficients from CLL random effects regressions of the likelihood of seeing a PPP allocated to a given district. Equivalent to those seen in Table 2.4. Descriptive statistics for all the variables can be found in Tables 2.1, 2.2 and 2.3. The baseline group for the legislative type variable is majoritarian electoral systems. DV = visible PPP, yes/no for Columns 1/8. DV = invisible PPP, yes/no for Columns 9/16. count of ppps from visible sector in given district-year. Robust standard errors in parenthesis. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Chapter 3

More Electoral Scrutiny and More Corruption? The Politician-Public Administrator Nexus

Abstract

The difference between how democracies work in theory and in practice is at the heart of the discipline of public administration. Improving knowledge regarding how to produce predictable, regular outcomes in democratic governance is a fundamental objective of the scholar of public administration. However, surprisingly little is known about how established democracies can develop pathologies even after many years of democratic rule. I approach the question by analysing a case of dysfunction in an established democracy. Using novel data on a political scandal in Italy and a Difference-in-Differences estimation strategy, I provide evidence that a sudden increase in electoral accountability for *national* politicians impacts negatively upon the behaviour of *local*-level public administrators. In those (treated) districts where deputies are accused of malfeasance, provincial level public administration corruption increases significantly as compared to non-treated districts. My results show that, in a dysfunctional democracy, an accountability-enhancing phenomenon can trigger a series of mechanisms within the political machine that lead to overall welfare-decreasing outcomes. This has implications regarding democratic design and how to tackle failures of accountability.

Solo work.[1]

[1]A version of this paper is circulating under the name "Electoral Accountability, Public Administrator Behaviour and Democratic Legitimacy". I would like to thank Tony Bertelli, George Krause Miriam Golden, Paola Profeta and Tommaso Nannicini for useful comments. My thanks also go to Antonio Acconcia and Claudia Cantabene for kindly sharing their data on provincial public administration corruption. Any remaining errors are mine.

Introduction

This paper aims to better understand the relationship between electoral accountability and democratic legitimacy by looking at the indirect, but instrumental link between the public scrutiny of politicians and the behaviour of public administrators. I ask how elected officials can de-legitimise the administrative state and whether malfeasant politicians' choices affect public administrators' actions. As politicians interpret, then assign the mandate given to them by their electors to the public administration, grey areas are created that are rife with opportunities for democratic deficit to grow. It is precisely the suboptimal functioning of the democratic 'transmission belt' that should transform the will of the voting public into policy outcomes that is the focus of this paper.

One of the fundamental questions of public administration scholarship is how, in a democratic setting, accountability affects the functioning of the public administration. Another is whether one can justify, in a democratic context, the considerable distributive power that public administrators wield by establishing rules and regulations that lead to predictable outcomes from the public administration. This paper speaks to both of these questions by analysing the relationship between politicians and public administrators in an advanced democracy. With respect to the first question, the analyses presented directly measure how a change in electoral accountability at the national level affects local level public administration outcomes. As will be shown, an increase in national level accountability does not lead to improved public administration performance, quite the contrary. Regarding the second question, the notion that the transmission of orders through a hierarchy inevitably distorts the original, intended message or policy is by no means new (Tullock, 1965; Downs, 1967; Hammond and Thomas, 1989) and has been demonstrated in numerous contexts (see, for example, Whitford (2002); Krause et al. (2006); Selin (2015)). The results presented here do not pertain directly to how the design of hierarchy affects public administration outcomes, but they do demonstrate how the different levels inherent in an advanced democratic administrative state can be exploited by malfeasant agents to circumvent increased electoral accountability. The 'transmission belt' that we encounter in this setting, in short, produces far from regular, predictable outcomes.

The specific institutional setting I examine allows for the analysis of how *local public administrative* behaviour changes as public scrutiny of *national politicians* increases, through a shock in electoral accountability, with legal repercussions for malfeasant politicians. The setting provides another important opportunity, that of being able to measure the prosecution rates of public administrators, something that is infrequent in other contexts especially at the local level. I assemble a novel dataset combining micro-data on Italian politicians from all levels of government (municipal, provincial, regional and national) with official judiciary accusations of corruption of individual politicians, and provincial level measures of public administrator corruption. This allows me to match national politicians to the public administrations in their respective electoral districts.

My preliminary findings suggest that when a national politician linked to a particular district is accused of corruption, corruption amongst public administrators in her district *increases*. I also provide evidence that politicians use public administrators as place-holders

in their districts, to ensure that their local voter base remains in tact despite the national corruption scandal and the individual politician's subsequent withdrawal from political life. They are able to do so, I argue, because a *de facto* system of political appointments in the bureaucracy was in place during the time period in question meaning that administrators were willing to serve as temporary substitutes. Two of the main contributions of the study are, first, the creation of a dataset that links politicians to public administrations and provides an objective (rather than survey-based) measure of public administration corruption. Second, lessons regarding democratic design and how, even in advanced democratic settings, politicians and public administrators can become detached from the accountability mechanisms that should prevent the kinds of welfare-damaging outcomes I find in this paper from obtaining.

Indeed, the situation under analysis in this paper is important to study precisely because it represents a thorny case in terms of democratic design. The setting is a Western established democracy, yet despite ostensibly competitive elections and a relatively free[2] media, the democratic machine is not producing systematic, predictable results. The institutional features that one usually expects to guarantee a functional democracy are not working. There are two puzzles at the core of this analysis: first, how accountability fails in the principal-agent relation between voters and politicians with politicians not being punished for bad governance outcomes and, second, how the principal-agent relation between politician and public administrator becomes contaminated such that the public's interests are not being served. Being able to study these puzzles at an aggregate level in a democratic setting can reveal a great deal about how, in practice, democratic design can fail. In an era in which the free media is under attack and disillusionment with democracy is growing, it is of the utmost importance to learn from previous examples of democratic dysfunction to be able to make progress.

The paper is organised as follows. Section 2 discusses the theoretical motivation behind the paper, explains the causal mechanism under analysis and lays out the hypotheses that are tested. Section 3.3 describes the Italian historical and institutional context under analysis. Section 3.4 describes my data and provides descriptive statistics. Section 3.5 presents the estimation strategy and main results and performs robustness checks. Section 3.6 discusses the results with reference to the surrounding context. Finally, in Section 3.7, I draw lessons from the case explored in this paper and conclude.

The Politician-Administrator Balancing Act

The tension between the constructs of the *'apolitical expert-administrator'* and the *'self-serving politician'* has shaped a significant portion of the public administration literature. It has been convincingly argued that the much-debated 'politics-administration dichotomy' is something of a straw man, with many of the founding thinkers of the field having been misrepresented as advocating this 'black and white' dichotomy (Lynn, 2001; Svara, 2001). Lynn (2001), indeed, argues that "[t]he idea of separating administration from politics is more

[2]The media in Italy has recently been categorised as 'partly free' by monitors (The Economist Intelligence Unit, 2017).

clearly expressed in Reinventing Government [...] and in contemporary attacks on 'top-down' democracy" [p.155] than it was in the works of the field's originators. Svara (2001) stresses the complementarity of the figures of public administrators (upholding the law and supporting fair electoral competition) and politicians (giving political direction, deciding which policies to implement), making the point that both are needed for a functioning democracy and that this tension must be continually and actively addressed, through "ongoing interaction, reciprocal influence, and mutual deference" [p.180].

National Politics, Local Repercussions

However, the tightrope of this "ongoing interaction", in practice, can be difficult to walk. Indeed, in the context under analysis here we have a clear example of how this balancing act can fail if one party is admitted more power than the other. Such power imbalances can manifest themselves in myriad ways and it is precisely to this question that my findings speak: how to understand in a systematic way how accountability affects public administration outcomes in democracies *as they are*, that is to say with imperfect features.

Prior to the scandal that forms the basis of my research design (discussed in Section 3), Italian politicians engaged in patronage practices, appointing public officials on a non-meritocratic basis (Zuckerman, 1979; Golden, 2003). Public offices during this time period were granted an unusual amount of discretion despite excessively detailed and copious legislation (Predieri, 1963; Golden, 2003). This manifested itself in myriad ways of working the system (e.g. *raccomandazioni, distaccati, imboscati, assunzioni fuori ruolo* - see, for example, Chubb (1982) for a more in-depth description of these patronage hiring techniques) such that the Italian public administration became an "immense reservoir of patronage" (Chubb, 1982, p.94). Thus, in many cases the personal link between politician and public official in a given district during this period was direct and the administrators were often beholden to the politician in some way, whilst also being invested with significant professional discretion. Therefore, significant numbers of public administrators in the setting under analysis become *de facto* political appointees, even if the *de jure* system would have them as appointed meritocratically.

This resulted in a set of conditions that many would argue does not correspond to an equal power relationship between politician and administrator or to responsible public service. Indeed, to this day the quality of Italy's public administration is widely pilloried and satisfaction with public services in the country is consistently low (see Figures 3.A.2 and 3.A.3 in the Appendix). Why should this be, given Italy's relative prosperity? Golden (2003) argues that Italy's 'bad bureaucracy' has been purposefully fostered by politicians in order to offer constituent services to navigate the dysfunctional system and boost their personal vote. Such a model of bad government is by no means restricted to the Italian context, indeed, Noll and Fiorina (1977) developed a similar model in the US context. My results support such an understanding of the persistence in the Italian bureaucracy's malfunctioning as being, at least partly, due to self-serving political motives.

According to such an understanding, two channels could be at work in influencing administrative malfeasance when a deputy is accused of corruption. First, a network effect whereby one of the central nodes in a highly central network of malfeasant officials is eliminated and,

thus, the network dissolves (Janssen et al., 2006). Second, a perception-based effect whereby public administrators experience their political overseer being punished and feel that they, too, are being more closely scrutinised (Di Tella and Schargrodsky, 2003). This leads me to the first of my two competing hypotheses:

H1: *"monitoring contagion"*: as local public administrators (agents) perceive increasing public scrutiny of the actions of their associated politicians (principals), they reduce the intensity of their involvement in corrupt activities for fear of discovery.

Prediction: higher public scrutiny and electoral accountability at the national level → *less* local public administration corruption.

Both of my hypotheses are premised on a principal-agent (Laffont and Martimort, 2009) understanding of the relationship between politician and public administrator as a principal-agent model. More specifically, the principal-agent relationship as seen from a transactional authority perspective (Carpenter and Krause, 2014), whereby a bargaining process occurs between the principal and agent that depends upon each party's acceptance of the other's authority. More specifically, referring back to one of the two puzzles that motivate this paper, the public administrator is the politician's agent inasmuch as she can make decisions and take actions on behalf of the politician. If a public administrator has been appointed on a patronage basis, she may feel both indebted to and in cahoots with her appointee. As Chubb chronicles, "[t]he raccomandazione by which the public employee accedes to the object of his aspirations is only the first link in a chain of reciprocal obligation that will progressively bind him ever more irrevocably to his patron and protector" (Chubb, 1982, p.98). The same holds for the appointing politician, she holds some sway over the appointed public administrator, but is also made vulnerable by the appointee's knowledge of her nature as a 'bad type'. This makes for a more complex principal-agent relationship than would generally be the case, which is where the transactional authority perspective becomes important. Given the many additional layers to the relationship that patronage bestows, the formal mechanisms upon which such a relation would usually depend are jettisoned. This is where transactional authority comes into play, with agent compliance being dictated by bilateral agreement of both the agent and the principal's "sanctioned acceptance" of one another's authority and legitimacy (Carpenter and Krause, 2014).

Equally, one could argue that a selection mechanism is at play whereby 'bad type' politicians hire 'bad type' public administrators through patronage. Such a mechanism could function alongside the transactional authority relationship outlined above or could work independently from it. In the former sense, the 'bad type' public administrator would bargain with the politician to establish a way to continue supplying electoral favours following the politician's accusal. In the latter sense, corrupt public administrators would commit corrupt acts independently of the 'bad type' politician. The national level scandal, however, would only have an effect on provincial public administration malfeasance if the politician and public administrator coordinate with one another. With a selection mechanism alone, the public administrators would continue to produce the same amount of corruption pre- and post-scandal. Thus, I recognise that there may also be a selection mechanism at play, but

argue that the main channel through which the national scandal affects local level public administration is the transactional principal-agent relationship between politician and public administrator.

Returning to the hypotheses, if these public administrators are beholden to their political principals - as suggested above and as evidence suggests they were in Italy during the period in question - they may be unable to act as independent agents, as frequently occurs in other guises across the globe (Van Rijckeghem and Weder, 2001; Hellman et al., 2000). Indeed, I argue that many public administrators in the setting under analysis were *de facto* political appointees. In such a situation, the politician's priorities may override those of the public administrator who would wish to protect herself from investigation. If a politician is thinking of remaining in politics, despite accusations of corruption, and operates in a context of 'bad bureaucracy', as posited in Section 3.2.1, she will have incentives to ensure that her voter base continues to receive electoral favours. As such, the competing hypotheses can be seen as presenting public administrators as complements to (H1) or substitutes for (H2) politicians.[3] This leads me to the second of my hypotheses:

H2: *"public administrators as place-holders"*: as politicians become more closely scrutinised, they transfer some responsibilities for the provision of political favours to indebted public administrators in their districts.

Prediction: higher public scrutiny and electoral accountability at the national level → *more* local public administration corruption.

Both hypotheses presume, to a certain degree, that citizens want, or at least accept, bad governance and prefer particularism to broadly beneficial policies. Despite Italy's status as an advanced economy and democracy, there is reason to be unsurprised by this phenomenon. Indeed, as recently as 2017 Italy has been categorised as a "flawed democracy" (The Economist Intelligence Unit, 2017) and has long struggled with trust in government. There is a rich literature documenting Italians' lack of trust in their institutions (both national and subnational entities) and the high price that they pay for government services (Nye et al., 1997; OECD, 2017, 2018; D'Attoma, 2018). Indeed, for decades scholars have grappled with this issue with Banfield (1958), most famously, presenting his thesis that underdevelopment - in the South of the country, in this case - is due to what he terms 'amoral familism' or a "social norm prescribing that societal welfare should be subordinated to the interest of the individual and of her family" (Aassve et al., 2018a). As we saw earlier in this section, we have reason to believe that Italian politicians during this time period shaped the administrative state purposefully to work poorly such that citizens were made to rely on particularistic practices. An understanding of the history of the Italian administrative state and the political culture[4] in Italy is essential to understand the, at first glance, irrational preferences of Italian citizens for particularistic policies.

[3] In the first case, the public administrator's corruption-producing behaviour complements that of the politician by stopping following the scandal. In the second case, the public administrator's corruption-producing behaviour substitutes for the politician's by taking over when the politician is uncovered.

[4] Indeed, Aassve et al. (2018b) find that early life exposure to corruption in Italy has persistent effects on institutional trust amongst citizens and on their propensity to vote for populist parties.

As a way to test the validity of such a channel in my sample, I calculate the number of years a politician waits before returning to politics after the scandal. I then correlate this amount of time with the number of serious charges[5] that each politician has accumulated. Figure 3.8.1 presents the raw data as well as fitted values for the linear regression of *Years to Re-Election* on *Count of Serious Charges*. As can be seen in the figure, the correlation between the two variables is close to zero and even when I replicate the regression controlling for basic demographic information (gender, education and region of birth) the coefficient is not statistically significant.[6] This supports the notion that voters in Italy in the time period under analysis did not electorally punish particularistic practices from their politicians. Had this been the case, we would expect to see a positive correlation between the gravity of the politician's involvement in the scandal and the amount of time required to pass before she re-enters politics. Although only correlational evidence, this finding stands in contrast to existing understandings of the intertemporal dynamics of electoral accountability whereby both good and poor performance in office are associated with reputation depreciation. For example, in their study of US governors, Krause and Melusky (2014) find evidence supporting the idea that politicians' reputations are "a rapidly depreciating asset that increasingly loses value the longer a politician takes a hiatus from elective office" [p.1114]. This applies to both poor- and well-performing politicians in that a 'good' politician should try to return immediately to offer to cash in on her reputation, whereas as a 'bad' politician should wait to try to return to office such that her reputation effect will have diminished. In the context under study here, it seems that such a logic does not apply as 'bad' politicians are not waiting to return to office. This provides further evidence of the democratic dysfunction mentioned at the beginning of the paper: accountability mechanisms were not working as intended in Italy during this time period.

FIGURE 3.8.1 ABOUT HERE

National Politics in Crisis: The 'Clean Hands' Investigations

The context under analysis here is Italy's First Republic (1948-1994). More specifically, the period of the 'Clean Hands' (*Mani Pulite*) investigations that upended the Italian political status quo. The investigations started with the discovery of the existence of *Tangentopoli* - or "Bribesville" (Foot, 1999, p.403)[7] - on the 17th of February 1992 when the *Partito Socialista Italiano* (PSI) deputy Mario Chiesa was caught *in flagrante delicto* accepting a kick-back for a public works contract. This was followed by a wave of other arrests, subsequent trials, and intense media attention, revealing a vast network of kick-backs and government involvement in

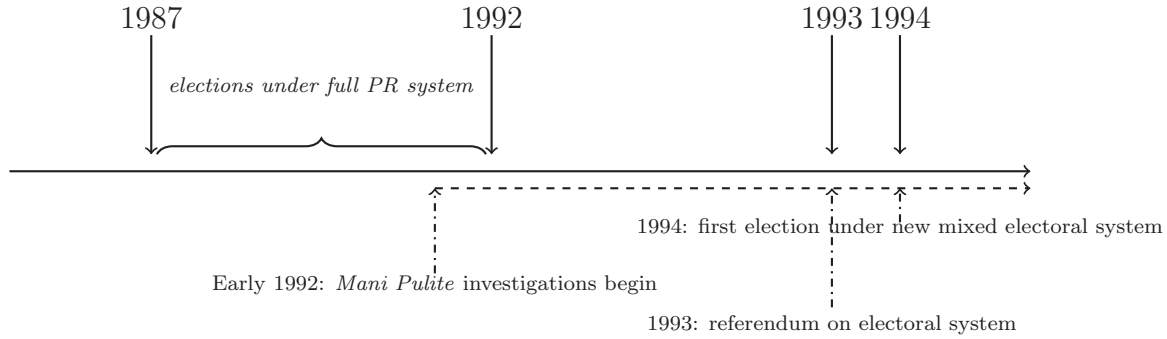
[5]See Section 3.5 for an explanation of this variable.

[6]Interestingly, the only coefficient to achieve statistical significance is *Education Level*. Being more educated is associated with a longer break between being involved in the scandal and re-entering politics (coefficient: 0.33, p-value: 0.009).

[7]A *tangente* being the Italian term for a kickback given for a public works contract.

mafia criminality. The investigations have been described as a "political earthquake" (Gundle and Parker, 2002). They led to the downfall of the *Democrazia Cristiana* (DC) who had been in power, without interruption, since the formation of the Italian Republic in 1946 (Gundle and Parker, 2002) and ultimately resulted in the discrediting and dissolution of the two ruling parties, the DC and PSI, and a major electoral reform in 1993. In short, voters' responses to the scandals translated into "a destructuring of the old party system with a dramatic weakening of the old dominant parties and the rise of new ones" (D'Alimonte, 2001).[8] See the timeline below for a summary of the major political events that will be of relevance to this paper.

Timeline of Political Events in 1990s Italy



Two features of the political situation depicted above are of fundamental importance to the analysis at hand. The first, the timing of the 1987 and 1992 elections. The second, the fact that the investigations predominantly involved *national* politicians, whereas I analyse the reaction of *local* public administrators.

First, the standing government (elected on the 14-15 June 1987) and the following government (elected on the 5th of April 1992) were both composed of the same 'kinds' of politicians. Indeed, looking at the lower house (*Camera*), whereas only 391 politicians were re-elected to the X legislature (1987-1992) from the IX legislature (1983-1987), 457 (out of a total of 630) politicians were re-elected from the X to the XI legislature (1992-1994), providing evidence that the scandal had not caused enough furore to affect elections in 1992. The DC and PSI, the two parties who were to be most involved in *Tangentopoli*, were still able to form a coalition government. This is essential for the analysis in that the investigations had not *yet* affected the composition of the political class (ahead of the 1992 election). However, once the 'Clean Hands' investigations were launched many more arrests were made than under usual circumstances and public interest in and outrage regarding politicians' behaviour increased significantly.[9]

[8]Indeed, the 1993 electoral referendum was overwhelmingly approved by the Italian electorate, with 82.7% of voters (Katz, 2001) choosing the new mixed member majoritarian (75% majoritarian, 25% closed list proportional) electoral system.

[9]Indeed, Aassve et al. (2018b) find that "during the peak of the scandal in 1993, almost 90% of all front pages covered the "Clean Hands" scandal" [p.6].

I argue that the discovery of *Tangentopoli* amounted to what was essentially a shock to the 'resources' available to the Italian judiciary and, subsequently, the number of corruption scandals that were uncovered. Asquer et al. (2018) have undertaken a media analysis of mentions of corruption on the front pages of Italy's main newspapers that shows a soar in media attention to corruption following the discovery of *Tangentopoli* in early 1992 (see Figure 1 in their paper, p.8). Indeed, this is a widely held understanding of what the investigations amounted to (Pizzorno, 1998; Sberna and Vannucci, 2013). By 'resources' I refer to a whole range of factors that were at play during the *Mani Pulite* investigations. Ranging from tangible elements such as more funding, personnel and time being dedicated to the investigation of political malfeasance as well as increased media coverage and subsequent public pressure and calls for arrests. Empirically, this means that *ceteris paribus* many more cases of (allegedly) corrupt activity are able to be identified, creating a discontinuity in the unearthing of corrupt actions by politicians, but *not* in the politicians who were elected to the XI legislature. This allows me to measure the effects of a shock to national electoral accountability, which, I argue, was exogenous to the public administration bodies whose behaviour I analyse.

Second, and no less important for my case that the investigations amounted to an exogenous shock for local level public administrators, is the fact that 'Clean Hands' predominantly involved *national* politicians. Daniele et al. (2018) make the case that local politicians were generally not directly implicated in *Tangentopoli* and undertake a qualitative analysis of local newspapers from Piedmont (Northern Italy) and Puglia (Southern Italy) from 1992-1994 for a sample of over a thousand municipalities to ascertain whether there were references to local politicians charged with corruptive practices. They find that "16 out of 124 cases [...] in municipalities governed by DC/PSI show some evidence of corrupt local politicians. The same is true for 11 out of 44 cases [...] in municipalities governed by other parties" (Daniele et al., 2018). This media analysis helps to support the claim that the 'Clean Hands' investigators were primarily concentrating their efforts on national politicians, with less of a focus on local governmental agents, even if they were by no means exempt from scrutiny. These two features of the *Tangentopoli* scandal provide an arguably exogenous shock to local public administrations, through the sudden increase in the number of national politicians being accused of corrupt practices. I exploit this to provide a credible causal estimate of *local* public administrators' responses to a *national* political scandal using a Difference-in-Differences (DiD) estimation strategy. Table 3.8.1 provides a summary of the proposed mechanism.

TABLE 3.8.1 ABOUT HERE

Sub-National Government in Italy

There are three levels of sub-national government in Italy: the regions, the provinces and the municipalities. In terms of the functioning of these administrative levels, there are different areas of competence that dictate which level administers which services. The national government has exclusive competence over certain policy areas, such as foreign policy or competition. Indeed, unless it is expressly stated that the State has a given competence, it is automatically the regions' responsibility. The Italian Constitution (Article 97) lays out

the separation between the political and the administrative sides of government, whereby elected deputies give the political direction to the bodies of the public administration which then realise - in their assigned areas of competence - the political instructions set out by the government. In Italy, administrative competencies are assigned according to subject-matter and type of attribution, as laid out in Article 117 of the Constitution. For example, the regions are responsible for the programming and organisation of health services, for providing educational facilities and for infrastructure on their territories. These macro areas are then delegated further down the administrative structure with the provinces, for example, being responsible for urban development, public transport and the management of school buildings in their jurisdictions. Municipalities, in turn, are responsible for an array of services from the registry of births and deaths, to the provision of local public services such as water supply, waste management and municipal police, to the implementation of housing and welfare policies.

In terms of organisation, at each of the levels a *presidente* (president, regions and provinces) or a *sindaco* (mayor, municipalities) is elected. This figure then heads a *consiglio* (legislative body) and a *giunta* (executive body). The former body is made up of elected councillors who manage the political and bureaucratic activities of the government in question. The latter body is composed of *assessori* (councillors) chosen by the figurehead to take charge of a specific kind of activity.

Given that the focus in this paper is on the public administration of Italy's provinces,[10] further examples of the competencies of the provinces (at the time of the *Mani Pulite* investigations[11]) are as follows: the definition and implementation of the provincial budget, civil protection (implementing regional plans, setting out provincial plans), schools and teaching (creating and shutting down schools, organising school networks, building schools' infrastructure), energy saving and efficiency, transportation, driving schools (authorisations, vigilance, consortia, ensuring adequate teaching standards), regulating mechanic businesses, issuing licences for lorry drivers, issuing industry permits, and managing job centres. I believe these examples suffice to demonstrate the significant powers conferred to the provincial public administration during this time period, as well as the ample room for the misuse of public goods and finance. In terms of administering electoral favours, then, it is easy to see why a national deputy would be interested in swaying the behaviour of the provincial public administration. Whilst regional administrators are the closest administrative level to national deputies, it was the provincial public administrators at the time of the *Mani Pulite* investigations who were responsible for administering many of the services that citizens use directly and for which they may require favours.

[10] A full list of the Italian provinces can be found in the Appendix, Figure 3.A.1. It is worth noting that, starting in the seventies, the strengthening of local government was one of the main causes of the increase in white collar crime in local public administrations (Melis, 1996) ("La [sic] cause recenti della *maladministration* italiana [...] possono essere ricollegate a cinque fattori: 'il rafforzamento dei poteri locali, l'istituzionalizzazione dei partiti, la confusione legislativa, la debolezza dell'amministrazione, l'assenza dei controlli'"). Indeed, in 2014 a major reform (56/2014, 'Legge Delrio') of the provinces occurred in which most of the provinces' powers were removed and split between the regions and the municipalities and that altered how the president of the province is elected, amongst other major changes.

[11] Reforms have occurred since that have reduced the provinces' powers substantially.

The central government can intervene and take over functions of any of the sub-national administrative bodies[12] if any norms or legal treaties, for example, are not respected or if these bodies do not undertake their responsibilities in a timely fashion (Article 120). These "substitutive powers of the State" (*"poteri sostitutivi dello Stato"*) mean that sub-national administrative bodies are open to intervention from national ministries, which are, by their very nature, political entities and have a vested interest in maintaining voter support. In a dysfunctional democratic setting such as the one in question where voters do not punish particularistic practices, this leaves room for negotiation between public administrators delivering services to citizens and the political branch of government. I posit that this can create downwards pressure on sub-national public administrators to bow to the desires of national politicians, even if this means breaking the law. This is especially the case for those individuals who have been hired through political patronage. Adding to this power imbalance is the fact that the very composition of the different administrative levels is different, with the concentration of highly educated individuals decreasing as one travels down the administrative structure. Figures 3.8.2 and 3.8.3 show the education levels associated with each administrative level of the Italian State. As can be seen especially clearly in Figure 3.8.2, the further down the administrative ladder one climbs, the lower the education level of the administrators. Figure 3.8.3 shows that this pattern is not changed in any meaningful way by the 1992 scandal.[13] As well as the institutional hierarchy described in the previous paragraph, then, there is also slippage in terms of the 'quality'[14] of administrators as one moves down the administrative hierarchy that adds to the asymmetry of power described above.

FIGURES 3.8.2 AND 3.8.3 ABOUT HERE

Data and Methods

Data

The data I use for my analyses are drawn from various sources. First, I gather the name, date of birth, gender, education level, profession, district of election and political role of all elected politicians from the municipal, provincial and regional levels of government. These data are provided by the Ministry of Internal Affairs (*Ministero dell'Interno*) and include all mayors, councillors, executive officers and presidents for the aforementioned sub-national levels of government. The data are provided in a sparse way and separately for the different levels of government, so I had to make a concerted effort to collect and assemble them all.

Second, I combine these data with those from Gagliarducci et al. (2011), which include the following information for Italian Members of Parliament from 1987 to 2008: detailed

[12]The relationship between the central government and the sub-national bodies are regulated by the principles of "loyal collaboration" (*"principio di leale collaborazione"*) and "subsidiarity" (*"principio di sussidiarietà"*).

[13]1987 was the last election before the 1992 scandal and ensuing 1992 national election.

[14]This is in line with the literature, where education is one of the most widely used proxies for quality (Jacobson, 1989; Shugart et al., 2005; Galasso and Nannicini, 2011).

demographic characteristics (age, gender, place of residence, education), self-declared previous job, parliamentary appointments (president, vice-president, secretary of the parliament or of a legislative committee), party affiliation and experience (member of the party directive board at the local, regional or national level), local government experience (mayor, councillor, regional president etc.), system of election, district and vote share. These data are further supplemented with the same information for the election of 2013.[15] Thus, I have detailed individual-level data on *all* elected politicians from all levels of government from 1984-2013 in Italy.

Third, I combine these data with Golden (2014)'s data on parliamentary malfeasance in Italy. This exercise involves manually ensuring that each individual's demographic data are correctly coded across all datasets so as to be able to merge at the individual level. This dataset contains information on all requests by the Italian judiciary to remove parliamentary immunity (*"richieste di autorizzazioni a procedure"*) from deputies during the first eleven postwar legislatures (elected in 1948 through 1992), including the nature of the judicial charges, the partisan affiliation of the deputy charged, the deputy's electoral district and legislature, whether immunity was lifted or not, etc. The Italian constitution (Article 68) required that the Ministry of Justice transmit requests to remove immunity to parliament in order to investigate a legislator for suspected criminal wrongdoing or in order to proceed with an arrest warrant. A majority vote by the floor of the relevant chamber was required to lift immunity. A constitutional change in November 1993 ended the requirement that the Chamber approve all requests to remove parliamentary immunity before the judiciary could proceed, and the dataset thus ends with the XI legislature in 1994 (Golden, 2014). The kinds of corrupt practices that the deputies in my sample undertook fall snugly into the category of government allocations to special interests. For example, the most frequent allegation was *violazione norme finanziamento pubblico dei partiti* (violation of the regulations on public financing of political parties), with *abuso di ufficio* (abuse of office) and *corruzione per un atto contrario ai doveri di ufficio* (corruption for an act contrary to official duties) running close behind (Chang et al., 2010, p.182). The first of these examples indicates that politicians were taking unauthorised amounts of money from private interest groups who, in turn, expected favours from the politician. Such favours would manifest themselves in resource allocations that almost certainly differed from those preferred by the median voter.

Fourth, these datasets are supplemented with provincial level data collected by the Italian Institute of Statistics (ISTAT).[16] These data include the number of 'corruption crimes' prosecuted. These include illegal activities such as embezzlement, misappropriation of yield to the detriment of the government, extortion and bribery agreements. These crimes are associated with the province where the crime was effectively committed. This measure constitutes the *Corruption Crimes* variable that is used as the dependent variable in my main specifications. It is important to note that this measure captures crimes that are *prosecuted*, not necessarily those which were committed. A second variable, this time a control, is also drawn from this source. It captures the average length of judicial proceedings relative to penal

[15] I thank Armando Miano for sharing these data.

[16] Used in Acconcia and Cantabene (2008), I thank the authors for sharing the data.

crimes, thus reflecting the efficacy of the provincial public administration in question. The sources of data are CRENoS and ISTAT, plus several issues of the *Annuario delle statistiche giudiziarie* (Acconcia and Cantabene, 2008).

I match these data sources at the district level, so that an average corruption score for all the provinces falling into a district is created. To be able to do so, I geo-coded the municipalities and provinces provided in the Ministry of Internal Affairs and ISTAT data, matching them to the electoral districts. Thus, a national Member of Parliament can be linked to the corruption performance of the public administrations in the provinces that fall into her electoral district.

To illustrate how the final dataset is set up with an example, the politician Salvatore Andò was elected in the district of Catania-Messina-Siracusa-Ragusa-Enna (Sicily) with the *Partito Socialista Italiano* (PSI) for both the elections of 1987 and 1992. This district is linked with data on corruption in the public administration of the provinces of Catania, Messina, Siracusa, Ragusa and Enna. He was charged once in 1987 with defamation[17] and thrice in 1992 with malfeasance or official misconduct[18] and complicity.[19] There were, on average, 28 politicians elected in this district over both the election years in question, of which 17% were charges with malfeasance. The average corruption scores for the public administrations in the provinces included in this district were 14.44 (*corruption crimes*) and 169.7 (*length of trial*) for the years of the electoral cycles 1987-1992 and 1992-1994, as compared with the average scores of 27.72 and 152.03 for these two variables overall, respectively. Descriptive statistics are presented in Tables 3.8.2 (covariates for main models) and 3.8.3 (covariates for supplementary analyses).

TABLES 3.8.2 & 3.8.3 ABOUT HERE

Empirical Strategy

Empirically, this study focuses on measuring the impact of an increase in national level accountability on provincial level public administrator malfeasance. The estimation approach takes the form of a DiD design.

My identification strategy exploits the two features of the Italian political landscape that were described in Section 3. First, the fact that the composition of the two governments elected in 1987 and 1992 were similar, with the scandal breaking just before the 1992 elections, but gaining momentum afterwards. Second, the fact that the 'Clean Hands' investigations mostly involved national politicians, making the scandal exogenous to local policy-making (Daniele et al., 2018). I use a DiD research design to assess the effect of the *Tangentopoli* scandal - a shock to electoral accountability, I argue - on public administrator behaviour at the provincial level, running the following regression model:

$$Y_{dt} = \alpha + \gamma treat_d + \lambda post_t + \delta_{DiD}(treat_d \times post_t) + \beta \boldsymbol{X}'_{dt} + e_{ct} \tag{3.1}$$

[17] "*Per il reato di cui all'art. 595 del codice penale e 13 della legge 8 febbraio 1*" (Golden, 2014).
[18] "*Per il reato di cui all'art. 317 del codice penale (concussione)*" (Golden, 2014).
[19] "*Per concorso ai senso dell'art.110 del codice penale-nel reato di cui...*" (Golden, 2014).

Where Y_{dt} is the count of corruption crimes committed in the local public administrations of a given district d and year t. $treat_d$ is a dummy variable equal to 1 if we consider a district that has an accused deputy and to 0 if it has no accused deputies, $post_t$ is a dummy variable equal to 1 if the deputy was elected after the *Tangentopoli* scandal (1992) and 0 if elected before the scandal (1987), $treat_d \times post_t$ indicates districts with accused deputies for post-scandal years. δ_{DiD} is the DiD estimate that captures the effect of the scandal on the levels of corruption in the local level public administrations. $\boldsymbol{X}'_{dt}$ is a vector of district-level controls (*Length of Judiciary Proceedings*, *Regions of Italy* and *District Magnitude*) measured for each district in each year.

In order to justify inference from the DiD model, the following assumptions are required (Lechner et al., 2011): the stable unit treatment value assumption, the exogeneity assumption, the assumption that in the pre-treatment period the treatment had no effect on the pre-treatment population, the common trend assumption, and the common support assumption. If these five assumptions hold (this is discussed in detail in the Appendix), then the DiD estimator can be interpreted as the average treatment effect. Such that the difference in pre- and post-treatment differences equates to the effect of the 1992 scandal reform on provincial level public administration corruption. Thus, α captures the average number of prosecuted crimes in non-treated group (districts with no corrupt deputies) prior to the scandal, $\alpha + \gamma$ captures the average number of prosecuted crimes for the treated group (districts with corrupt deputies) prior to the scandal, $\alpha + \lambda$ captures the average number of prosecuted crimes for the non-treated group post-scandal, and $\alpha + \gamma + \lambda + \delta$ captures the average number of prosecuted crimes for the treated group post-scandal.

Dependent Variable

The dependent variable in my models, *Corruption Crimes* (mean: 18.7, S.D.: 19.9), is a count of the number of illegal activities - such as embezzlement, misappropriation of yield to the detriment of the government, extortion and bribery agreements - undertaken by the public administrations of the provinces within an electoral district. As was already mentioned in Section 3.4.1, it is important to underline that crimes that are *prosecuted*, not necessarily those which were committed. As such, it must be recognised that the measure captures not only corruption in the province concerned, but also the effort and efficiency of the national and local authorities in combatting corruption. I am able to account for efficiency in the form of my provincial level variable *Length of Judiciary Proceedings* - as will be discussed in Section 3.4.5 - but capturing the effort of state authorities is, unfortunately, more problematic. Although I have no way of empirically capturing the effort that individual prosecutors put into fighting corruption, I hope that some contextual information about the judiciary in Italy may help to assuage concerns about a differential amount of effort across prosecuting authorities in Italy.

The Italian judiciary is composed of judges (*magistrati*) and public prosecutors (*pubblici ministeri*) who are public officials and who compete in a nationwide competition to be assigned to the different *procure* (judicial offices) around the country. The individuals who perform best in the competition have first choice of which *procura* to go to work at. Individuals will

make this decision based upon, then, their ranking, their personal attributes (for example, their region of birth) and the type of work associated with each *procura* (some *procure* in the South, for example, are popular amongst judges who wish to work anti-organised cases). If one examines the *bollettini* (Il Ministero della Giustizia, 2018) that announce the results of the competition for *magistrati* it becomes clear that there is a strong correlation between individuals' place of birth and the *procura* they choose to work in. This is consistent with the fact that Italians have been found to have a strong preference for living and working near home.[20] All of this is to explain that judges and public prosecutors across Italy are all held to the same standard, are all trained in the same way and there are no local-level recruiting processes. Thus, one can reasonably expect all public prosecutors and judges to have the same level of expertise and exert the same level of effort across the country. This may be particularly the case given that people often return to the native areas and, therefore, have a further reason to want to perform their duties well to improve local conditions and to show their worth.

Theoretical Covariates

Assessing whether local public administrators respond to national political scandals involves a simple comparison of districts with and without accused deputies, before and after the scandal. Thus, I include a dummy variable, *Treated*, to indicate districts 'treated' with an accused deputy and those that were 'untreated' i.e. had no accused deputy (mean: 0.95, S.D.: 0.22). This variable is interacted with a dummy indicating whether the time period is before or after the outbreak of the scandal in 1993, *Post* (mean: 0.38, S.D.: 0.49). I also include a linear time trend, given the increasing number if corruption crimes committed in the time period under consideration.

Additional Covariates

My main statistical models include three controls. The first is drawn from the Acconcia and Cantabene (2008) dataset on provincial level public administration and measures the average length of judicial process, that is to say the "ratio of the number of pending judicial proceedings, at the beginning and the end of each year, to the number of judicial proceedings started and completed in the same year" (Acconcia and Cantabene, 2008).[21] I use this measure, *Length of Judiciary Proceedings*, to capture the efficiency of the provincial public administration in question. The second controls for the *Regions of Italy* of Italy (1 = North, 2 = Centre, 3 = South, 4 = Islands),[22] given the varying levels of economic development and culture for corruption that are associated with the country's different regions (mean: 2.03, S.D.: 1.03), with the South of the country, including the islands, being associated with higher corruption (Banfield, 1958; Golden and Picci, 2005; Nannicini et al., 2013). Third, I control

[20] Even if this comes at the price of unemployment or a lack of career progression (Repubblica, 2017).

[21] The average length of judicial process is computed according to the degree of judgement: the index is calculated separately for First Degree (*Istruttoria and Primo Grado*) and for Second Degree (*Appello*).

[22] Created using the European Union's NUTS1 categorisation of regions.

for the *District Magnitude* (mean: 19, S.D.: 12.17), which captures the number of seats in a given electoral district, proxying for its population size.

As part of my robustness tests, I also operationalise the following variables in order to gauge how the intensity of national level treatment affects provincial level public administration corruption. These variables are drawn from the parliamentary malfeasance database (Golden, 2014). The first is the *Percentage of Corrupt Deputies* per district and electoral term (mean: 0.26, S.D.: 0.16), which measures the percentage of deputies in a district who have been accused of malfeasance. The second is the average number of *Charges per Deputy* (mean: 0.55, S.D.: 0.48) in a given district and electoral term.[23] These variables both capture the intensity of the national level treatment in each district. One might expect a district with several deputies accused of corruption to send a stronger signal to the local level public administrations or a particularly corrupt single deputy to send a stronger signal to the public administrations in his district.

Results

Estimation results for the effect of having a deputy accused of corruption in the post-scandal period are shown in Table 3.8.4. My models are estimated with robust standard errors clustered at the district level to avoid overconfidence due to unobserved heterogeneity within districts.

TABLE 3.8.4 ABOUT HERE

All specifications support the second *"public administrators as place-holders"* hypothesis in providing evidence that public administration corruption *increases* in districts with (at least) one accused deputy, following the scandal. The DiD estimator is consistently positive and statistically significant. Illustrating with my preferred model (Full Controls, Column 4),[24] a treated district in the post-scandal period is associated with a 15 unit increase in corruption crimes as opposed to a non-treated district in the post-scandal period. The size of the estimated effect is substantively as well as statistically significant, given that the mean value of my *Corruption Crimes* variable is 18.7 with a standard deviation of 19.9. Results for control variables provide some interesting insights into the effect of district features on public administration corruption. The *Length of Judicial Proceedings*, my measure of provincial public administration efficiency, has no statistically significant effect on the number of corruption crimes committed in a district's provincial administration. Surprisingly, given the literature on corruption in the South of Italy, being from the North of the *Regions of Italy* is associated with a 6.8 unit increase in corruption crimes as compared to the central region of the country, whereas being from the South has no statistically significant effect. A unit

[23]These variables are calculated from the raw counts of the number of *Deputies Accused* and the number of *Charges Made* in a given district-electoral term. These count variables are also reported in Table 3.8.3.The *Serious Charges Made* variable is discussed in Section 3.5

[24]This model is preferred as the Akaike Information Criterion (AIC) is lowest for this model (Akaike, 2011), with a score of 2037.71.

increase in *District Magnitude* is associated with an 0.91 unit increase in provincial public administrator corruption. This coefficient is coherent with the fact that districts serving more citizens are likely to have more opportunities to engage in malfeasant activities due to the intensity of public service and the size of the public administration.

To test the robustness of my findings, I undertake several tests organised into three groups. In the first group, I estimate six additional specifications (see the Appendix, Table 3.A.1). The first is a negative binomial count model, given that the dependent variable being used is a *count* of the corruption crimes being committed in a provincial public administration. My results are robust to being modelled for a count variable. Indeed, illustrating with the model reported in Table 3.A.1 (Column 1), we can see that the results obtained are substantively very close to those obtained using ordinary least squares (OLS). Comparing a treated and non-treated district in the post-scandal period, a treated district is associated with a 15.7 unit increase in the number of corruption crimes committed by the provincial public administration.[25]

Still in the first group of robustness tests, the second and third specifications replicate the main analyses, but classify treated and control districts differently than in the main specification. These analyses tackle the fact that my data are imbalanced in terms of the treated and untreated districts, with more treated (95% of the estimation sample) than untreated districts (5% of the estimation sample). In an ideal world, my data would be perfectly balanced in terms of treated and untreated units. However, given that this is not the case I endeavour to show that the districts that are treated and untreated are comparable in characteristics and that my results are not driven by only few, specific districts. Columns 2 and 3 of Table 3.A.1, then, demonstrate the robustness of my results to changing how the treated and control units are defined. In Column 2, I define as treated only those districts that had a number of accused deputies that is greater than the 75th percentile of the distribution, such that the estimation sample is 78% untreated and 22% treated districts. In Column 3, I define as treated only those districts that had an overall number of charges that is greater than the 75th percentile, such that the estimation sample is 78% untreated and 22% treated districts. As can be seen in these columns, the effect of the *Mani Pulite* investigations on the number of corruption crimes committed at the provincial level is still positive and statistically significant in both cases and the magnitude is greater than in the main specifications.[26] This increase in magnitude is perfectly in line with my findings in that the intensity of treatment in both these cases is higher than in the main specifications. The composition of the treated and untreated districts, then, does not seem to be driving my results. Further to the robustness tests presented in Columns 2 and 3 of Table 3.A.1, I also perform t-tests by treatment group for the continuous control variables I have at my disposal. The treated and untreated groups from my main specifications (Table 3.8.4) are statistically identical

[25] A negative binomial regression model of the number of provincial public administration corruption crimes at the district level post-scandal in a non-treated district admits a coefficient of 13.1 ($p = 0.000$, $N = 248$), whereas post-scandal in a treated district it admits a coefficient of 28.8 ($p = 0.000$, $N = 248$).

[26] The main results estimate an increase of 15 crimes, which here increase by 10 and 7 points to 25 and 22 crimes for the number of accused deputies and number of charges measures, respectively.

in terms of population and length of judicial proceedings.[27] In short, these tests present evidence that my results are robust to changing how the treatment units are defined and that other observable characteristics of the treated and control units in the main specifications are comparable across treated and untreated districts.

The final three specifications in the first group of robustness tests (Table 3.A.1) constitute a proof of concept.[28] In these models I link the provincial public administration corruption (Acconcia and Cantabene, 2008) dataset with my data on the universe of elected Italian politicians so as to identify those electoral districts to which politicians involved in the corruption scandal *returned* in subsequent elections.[29] The idea behind these models is to ascertain whether there is a positive correlation between the presence of returning malfeasant national politicians to a district and its levels of provincial public administration corruption. Each of these models confirms this positive correlation. The first model (Table 3.A.1, Column 4, Appendix) uses a simple indicator variable to capture whether or not a district has elected a national politician who was involved in the *Tangentopoli* scandal. This variable is associated with a 13 unit increase in provincial level public administration corruption crimes. The second model (Column 5) uses a continuous intensity measure that captures the number of individual politicians involved in the scandal who are elected in a given district-election term (mean: 0.6, max: 6, S.D.: 1.2). This variable is associated with a 9 unit increase in provincial level public administration corruption crimes. The third model (Column 6) uses a further continuous intensity measure that captures the number of charges associated with the politicians involved in the scandal who are elected in a given district-election term (mean: 1.6, max: 22, S.D.: 3.6). This variable is associated with a 3 unit increase in provincial level public administration corruption crimes.

TABLE 3.A.1 ABOUT HERE

In the second group of robustness tests (3.A.2), I undertake sensitivity analyses, removing provinces that could be argued to drive my results for various theoretical reasons. In Table 3.A.2, I present the results of these analyses. In Column 1, I remove from the sample all those districts that have a total number of charges that falls within the 90th percentile of the distribution. The idea here is that a few highly corrupt electoral districts could be driving the results. As can be seen, this slightly reduces the magnitude of the result, but it remains statistically significant at the 1% level. Column 2 replicates Column 1, but addresses only *serious* charges. I follow Chang et al. (2010) in categorising charges into two major groups, serious and non-serious. Non-serious charges are "all charges involving opinion crimes because these are especially likely to arise during the process of political campaigning. This category includes libel, slander, defamation, and other, similar items, including anything related to fascist activities" (Chang et al., 2010, p.182). Serious charges cover all the remaining charges,

[27]That is to say that the t-statistic for both variables, when comparing treated and untreated districts, is not statistically significant.

[28]I thank Patrick Wolf for this suggestion.

[29]The provincial public administration data covers years 1982-1999, my data on the universe of Italian politicians covers years 1987-2013. Given that I am interested in elections following the 1992 scandal, the common support for these two datasets includes the 1994 and 1996 elections.

which involve "a variety of allegations running from the mundane to the genuinely severe, extending even to murder. A great many involve explicit allegations of political corruption, involvement in illegal party financing, or abuse of office" (Chang et al., 2010, p.182). As can be seen, excluding districts within the 90th percentile of this variable also reduces slightly the magnitude of the effect, but it remains statistically significant at the 1% level. In both these cases, then it seems that provinces with a high number of charges or serious charges may be driving some of the effect, but certainly only partially given the robustness of the result to their removal from the sample.

TABLE 3.A.2 ABOUT HERE

In Column 3, I remove from the sample all those districts that have a number of individual deputies who fall into the 90th percentile of corrupt per capita corruption. Column 4 replicates Column 3, but looks only at the per capita number of serious crimes. In both cases, the magnitude of the effect of the scandal actually increases, indicating that districts with intensively malfeasant deputies actually partially drive down the effect on provincial public administration. In Column 5, I remove all districts including provincial public administrations with a measure of inefficiency that falls into the 90th percentile of the distribution. The idea here is that least efficient public administrations may also be the most prone to administering electoral favours, as according to the 'bad bureaucracy' logic laid out in Section 3.2.1. In fact, the opposite seems to be true, given that the magnitude of the effect increases when these districts are removed from the sample. This indicates that, if anything, the least efficient districts are associated with fewer cases of post-scandal, public administration corruption. Overall, then, the sensitivity analyses reassure us that the estimated effect of the 1992 scandal on provincial public administration corruption originates from provinces nearer the centre of the distribution in terms of corrupt practices and is not driven by a few outliers.

The the third and final group of robustness tests (3.A.3), I provide further evidence in favour of the CT assumption holding by introducing leads and lags for the years preceding and succeeding the scandal year to my DiD model (as seen in Autor (2003), for example). Table 3.A.3 (Appendix) presents the results. The fact that the two lead year (1990 and 1991) interactions do not have an effect on provincial public administration corruption reassures us that there are no pretreatment effects contaminating the effect of the 1992 scandal. The lag year (1993 and 1994) interactions are statistically significant but are less strong in terms of magnitude than the shock year (1992), providing evidence of the treatment effect persisting, but fading slightly over time. This bolsters the argument that there was something specifically about the 1992 scandal year that led to a change in treated districts' public administration practices that then persisted - although more weakly - into the subsequent two years of provincial public administration practice.

TABLE 3.A.3 ABOUT HERE

Discussion

I have provided evidence that the increase in accountability brought about by the *Mani Pulite* investigations at the national level led to an increase in provincial level public administrator corruption. Figure 3.8.4 provides a concise summary of my results, which support the *"public administrators as place-holders"* hypothesis across all models. As we have seen, these results are overwhelmingly robust, with the exception of the Deputies, Percentage model (Table 3.A.1, Column 2), which provides an indication that it is the extent of an individual's malfeasance rather than the spread of malfeasance that drives the effect.[30]

FIGURE 3.8.4 ABOUT HERE

Politicians involved in major corruption scandals typically experience a loss in their vote share (Peters and Welch, 1980; Welch and Hibbing, 1997), if not a more damaging outcome such as an outright loss or an estrangement from the party leadership (Asquer et al., 2018). Given this, the sheer scale of the 1992 scandal, and the public outrage it caused, one may well ask what incentives these politicians would have to collude with public administrators to administer electoral favours after their involvement in the scandal. To explore this line of reasoning, I conduct a merge of the data on accused politicians (Golden, 2014) with my larger dataset of the universe of Italian politicians from 1987-2013 (see Section 3.4.1) to see how many accused politicians re-enter the world of politics after their involvement in the scandal. This provides an indication of whether politicians would be interested in maintaining their local voter base after involvement in a major scandal, as re-election hopes would certainly motivate a politician to keep her voter base loyal and content. Table 3.8.5 shows that the majority of politicians do re-enter politics and, of these politicians, the majority re-enter *national* politics.[31] This provides evidence that politicians would have incentives to administer favours to voters in their district in the manner evoked in the *"public administrators as place-holders"* hypothesis. As explored in Section 3.2.1, many historical factors mean that the usual kinds of accountability mechanisms that would keep a corrupt politician out of office following a scandal were not functioning correctly. This is indeed part of why this case is so interesting, exploring how even in established democratic settings institutional design can lead to democratic dysfunctionality.

TABLE 3.8.5 ABOUT HERE

Using an increase in national level scrutiny as a treatment variable may also raise doubts regarding the intensity of scrutiny at the local level. As I have highlighted throughout the paper, there is much evidence suggesting that press scrutiny was focused at the national level (Daniele et al., 2018) and, when it was focused at the local level, that politicians and

[30]Put simply, one very corrupt individual is more likely to drive the effect that several moderately corrupt individuals in the same district.

[31]The number of politicians who attempt to return to politics may be much higher, but I only observe *elected* politicians, rather than candidates, so cannot measure how many attempt to make a come-back and fail.

not public administrators were the targets (Asquer et al., 2018). With respect to judicial scrutiny, further evidence against the notion that the *Mani Pulite* investigations also involved an increase in scrutiny of local level public administrations is the fact that at the same time that *Mani Pulite* was unfolding, "a series of legislative measures made it increasingly difficult for judges to investigate crimes against the public administration" (Della Porta and Vannucci, 2007, p.835). The judiciary's work at this time became increasingly difficult due to the lack of political support (Della Porta and Vannucci, 2007).[32] It is very difficult to imagine, therefore, that the increase in public administration corruption crimes revealed in my data are driven by increased investigation of local public administrations. If anything, during this time period it is less likely that judiciaries would have had the resources to investigate local public administrations than under usual circumstances. Finally, if there had been an increase in investigations of local public administration bodies one would expect to see an increase in corruption crimes across all districts, not only in the treated districts that I identify.

I would also like to highlight that there were no major changes to hiring practices in the Italian public administration in the run-up to the *Mani Pulite* investigations. Indeed, the ex-Minister of Public Function, Sabino Cassese wrote in 1994 that, until 1993, "administrative reform was not on the political agenda" (Cassese, 1994, p.249).[33] Indeed, he goes as far as to write that "[l]ike all things that are not seen as attention-worthy, the workings of the public administration were... just left to exist. The offices had archaic structures. The procedures were obsolete. The personnel, often of high quality, were frustrated by the other members of the personnel who had been hired for political, union-related or familial reasons" (Cassese, 1994, p.249).[34] Unsurprisingly, the unearthing of the *Tangentopoli* scandal did spur the government to undertake broad reforms of the workings of the State. This did not occur, however, until 1993-1994 in the form of the Cassese reforms, which were only partially implemented and then the later Bassanini reforms (1997-1999). These reforms would, if anything, have had muting effect on malfeasant practices amongst public administrators given the new focus they placed on making services more consumer oriented and more efficient (through, for example, the installation of some self-service counters in trial municipalities) (Cassese, 1994). Furthermore, a dramatic turnover in the composition of the public administration itself due to reforms was virtually impossible in the 1990s - as it still is today - due to a combination of strong trade unions, the Italian public administration's seniority-based structure, and strict legislation regarding workers' protections and a high percentage of staff with permanent contracts.[35]

As evidenced in Section 3.5, I present results that suggest that in the context under study malfeasant national politicians are able to collaborate with local level public administrators to

[32]Accusations from politicians that judges had abused their positions, for example, became more common (Della Porta and Vannucci, 2007).

[33]Translation by the author, original text: "la riforma amministrativa non era nell' 'agenda politica' ".

[34]Translation by the author, original text: "Come tutto ciò che non interessa, il funzionamento dell'amministrazione... era lasciata esistere. Gli uffici avevano strutture archaiche. Le procedure erano obsolete. Il personale, spesso eccellente, era frustrato da altro personale, scelto per meriti politici o sindacali o familiari...".

[35]ISTAT figures for 2011 show that 7.16% of the public administrative staff have fixed term contracts, so 92.84 have permanent contracts (ISTAT, 2011). This figure is likely to have been still higher in earlier years when New Public Management-style hiring practices were even less the norm.

sustain their nefarious practices whilst facing higher than usual scrutiny at the national level. I have collected and combined data sources in such a way as to unveil previously unobservable aggregate behaviours, but the exact channel through which this occurs is, unfortunately, untestable with the data that I have at my disposition. However, it is widely understood by scholars of corruption in Italy that:

> "...corruption in Italy has been shown to be – and presumably still is – a system, not the mere aggregation of many dispersed, isolated illegal acts. It has become a market, which, as in the case of every functioning market, has developed internal rules and codes of behaviour – a regulated market, in which the exercise of public authority in many crucial areas – public contracting procedures, licensing, urban planning, etc. – is governed by the laws of supply and demand" (Vannucci, 2009, p.244).

Indeed, my results support precisely this vision of *systemic* corruption and a contagion effect. When one channel through which to fulfil its obligations is blocked, the machine readjusts itself so as to continue to meet demand. The players who constitute the network coordinate so as to ensure that their interests are protected. In the case of *Mani Pulite*, a shock to the extent to which politicians were held to account had a positive impact only in the short-run, precisely due to the systemic nature of corruption. In the long-run, the investigations increased tensions between the political class and the judiciary (Pizzorno, 1998; Della Porta and Vannucci, 2007), deepened society's pessimism about the integrity of the country's governing elites and reinforced tolerance of illegal practices as a way to circumvent the broken system (Vannucci, 2009). These broader reactions, combined with a series of failed attempts to reform the public administration,[36] created the conditions for corruption to continue to flourish and, indeed, highlight the dangers of attempting to resolve a deep-rooted and multifaceted problem by focusing on one element only of the issue.

The *Mani Pulite* investigations, then, can be seen as an example of how ordinary institutional mechanisms fail to control corruption in an advanced democracy (Vannucci, 2009, p.234). Even political competition, the stalwart of democratic proponents, failed to improve the situation, with corruption being practised as way to finance the voter mobilisation required by democracy (Della Porta and Vannucci, 1994). The increase in national electoral accountability, as testified to by my findings, led to an equilibrium change rather than a revolution in the way the country was governed, with the locus of corruption shifting rather than disappearing. Indeed, looking at Figure 3.A.5 (Appendix), one can see that the level of provincial level public administration corruption remains at a much higher overall level than prior to the scandal years after the effect of the shock has evened out. As such, my findings speak to the literature on 'informal institutions' (Lauth, 2000; Helmke and Levitsky, 2006) that emphasises how informal mechanisms can often undermine the correct functioning of a formal institution.

[36] See Della Porta and Vannucci (2007) for a helpful summary.

Conclusions

I have argued that the 'Clean Hands' investigations sharply increased the level of scrutiny being faced by national politicians, leading to sudden rise in deputies being held to account by their voters. In turn, I have made the case that this amounted to an exogenous shock at the local level, impacting upon the behaviour of the provincial public administrators associated with accused deputies. I find that in those (treated) districts where deputies are accused of malfeasance, provincial level public administration corruption increases significantly as compared to non-treated districts. I also provide evidence that the majority of politicians involved in the scandal re-entered politics following the debacle, giving them a credible motive to maintain their voter base - via favours administered by local level public administrators - for future political endeavours.

My results make an important contribution by capturing in an aggregate manner, with a non-subjective measure, a relationship that is usually very difficult to observe. Being able to empirically study the way in which a public administrators react to a shock in levels of political accountability, in a context of power imbalance, deepens our understanding of how relations of transactional authority function in imperfect democratic settings. My results support the argument that public administrators are able to valorise their expertise, even if this expertise is illicit, when it is aligned with the perception and interest of the (malfeasant) political principal (Bertelli and Busuioc, 2018). Given that no democracy works perfectly, it is not difficult to imagine innumerable other situations in which public administrators and politicians may collude to the detriment of the citizenry. My results also demonstrate that an increase in electoral accountability alone is not enough to counteract such a situation. Once a culture or system of corruption is established, scrutinising the political class more closely or even renewing the political leadership will not solve the problem and can even worsen matters as the forms of malfeasance mutate to avoid detection.

Although my results are drawn from a specific historical and cultural situation, the conditions created in Italy in the early 1990s could easily be replicated in all manner of contexts. The added-value of the case in question is precisely its dysfunctionality in an advanced democratic setting. In terms of lessons to be drawn, my results reveal a system of multi-level coordination that sidesteps traditional accountability mechanisms whereby the national press is able to trigger a virtuous chain of events by uncovering malfeasant actions. This kind of coordination could be combated by greater scrutiny at the sub-national levels of government, for example, by offering financial assistance to local newspapers and watchdogs who would be able to monitor local politician and public administrator behaviour more closely. A phenomenon whereby the locus of malfeasance within the government can be moved testifies to a complex system of cooperation that requires more than headlines, public outrage and legislative tweaks to resolve. Without accountability and a deep change of political culture such a system is very difficult to eradicate. Indeed, many believe the situation in Italy has remained the same, if not worsened, since *Mani Pulite* precisely because the efforts of magistrates and the press alone are not enough to change the political culture if voters are unable or unwilling to punish particularism (Il Fatto Quotidiano, 2015; Il Sole 24 Ore, 2017; Il Fatto Quotidiano, 2017). A further lesson to be drawn from this case is the

importance of across-party and journalistic monitoring of reforms of the public administration. In a context where politicians have incentives to preserve certain features of administrative malfunction, the motivations behind and content of reforms of the public administration must be especially closely scrutinised. The role of international watchdogs monitoring corruption could be instrumental here in signalling to opposition parties and press representatives when legislative measures seem suspect.

A limitation of the data that I analyse is that I cannot directly test the mechanism through which political principals and public administrator agents coordinate. The effect of the increased accountability at the national level on provincial level public administration corruption is powerful, but I am unable to precisely identify *how* this increase takes place. This limitation, however, could present an opening for important future research into how networks of illicit government activity form and how their decision-making processes function. The identification of actors could be possible by using legal documents chronicling cases of malfeasance, perhaps supplemented by expert interviews, and decision-making processes could be gleaned from network analysis and even text analysis of depositions or interviews with involved actors. The validity and accuracy of such information is, of course, always open to debate, but the effects of such networks are hugely costly, widespread and tend to affect the poorest individuals the most (OECD, 2014; World Bank, 2018a). As the techniques used to combat corruption become more sophisticated, I would argue that the endeavour to identify aggregate patterns of malfeasant behaviour and better understand how such networks of form and operate is imperative if we are to understand how they react and adapt to policies intended to eradicate them.

Even in rich, advanced democratic settings corrupt practices persist - be they legal or illegal (Kaufmann and Vicente, 2011) - and power imbalances between politicians and public administrators emerge. If, as my findings suggest, such imbalances lead to injustices in how public goods are distributed, this can have lasting, pernicious effects on the legitimacy of politicians and public administrators alike (Anderson and Tverdova, 2003), as well as on the social and economic performance of a country.[37] In a context such as today's where disillusionment with democracy is growing, it is precisely into the grey areas surrounding the enactment of the will of the people - the malfunctioning of the unattainable 'transmission belt' of public administration - that we must look if we are to better understand the anti-democratic tendencies that characterise so many polities today.

[37]For helpful reviews see Montinola and Jackman (2002); Rose-Ackerman and Palifka (2016).

Figures and Tables

Figures

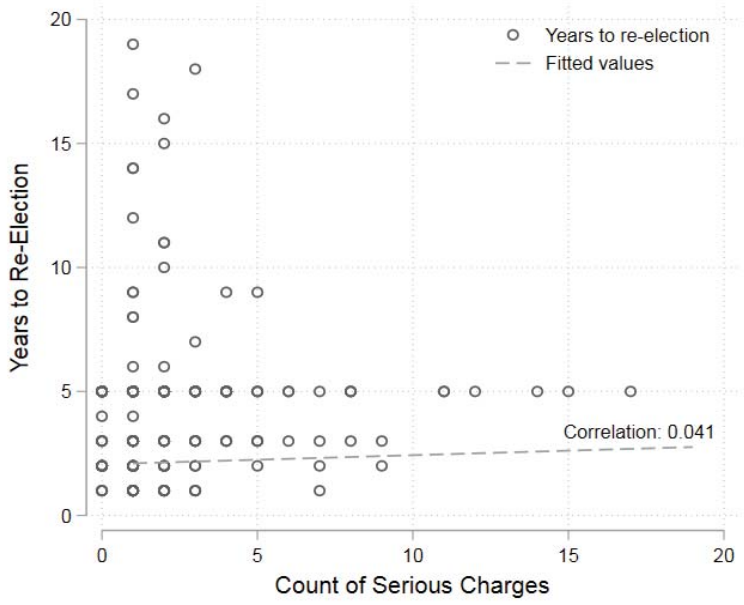


Figure 3.8.1. Correlation Between Count of Serious Charges and Length of Time Before Returning to Office

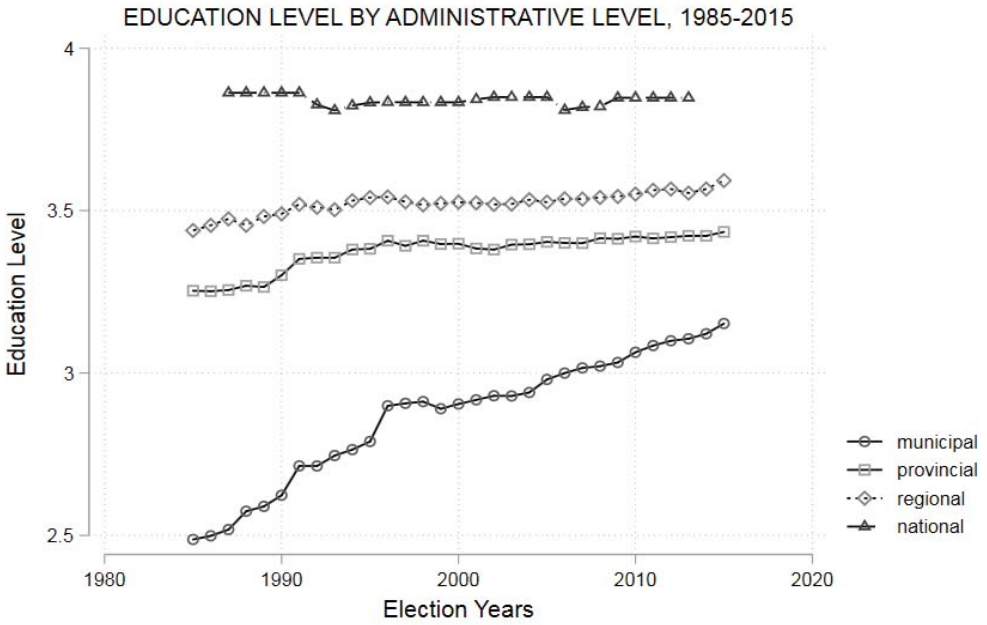


Figure 3.8.2. Education Level of Politicians at All Administrative Levels, Italy 1985-2015

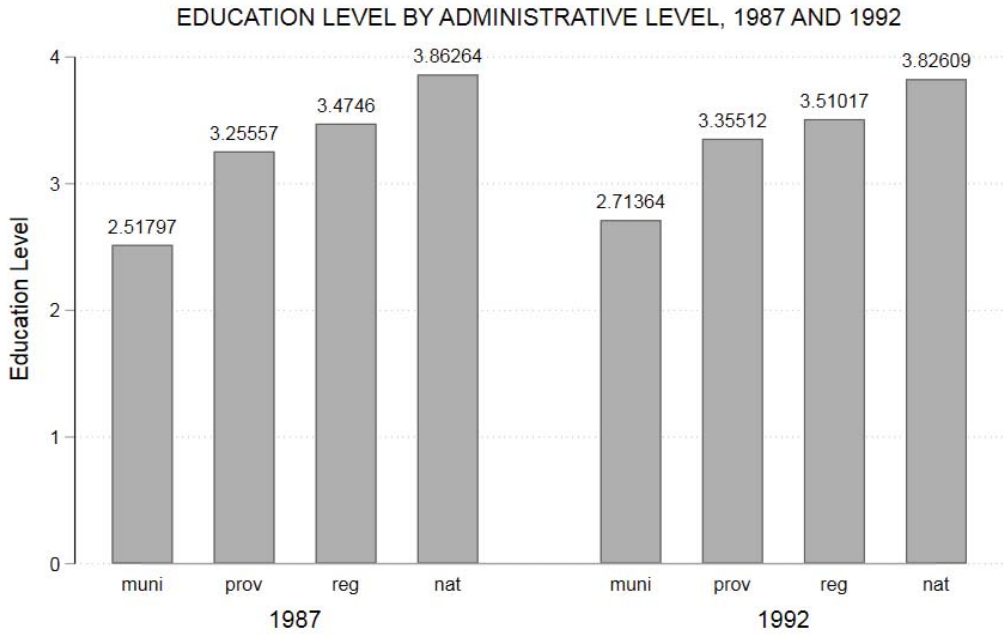


Figure 3.8.3. Education Level of Politicians at All Administrative Levels, Italy 1987 and 1992

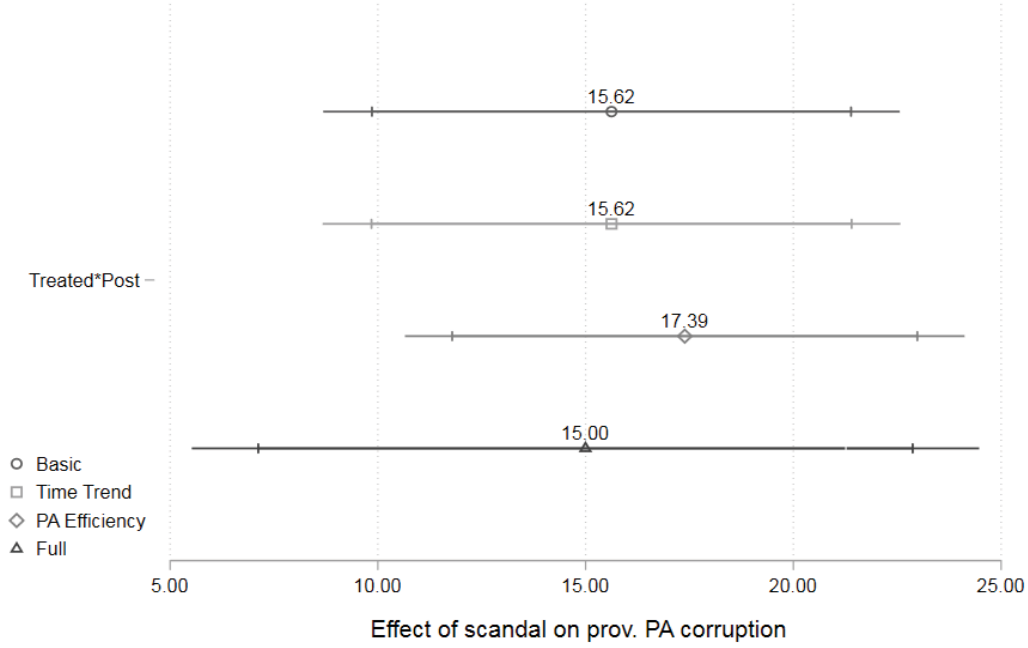


Figure 3.8.4. Coefficient Plot for the Effect of the *Mani Pulite* Investigations on Provincial Level Public Administration Corruption, Difference-in-Differences Regression Results

Tables

Table 3.8.1: Proposed Mechanism

	Pre-Shock	**Post-Shock**
MP accused of corruption?	No. (PRE + TREATED = 0)	Yes. (POST + TREATED = 1)
Reaction from province's public administrators?	Business and usual. *Corruption remains constant.*	**Treatment effect**: Picking up the slack w.r.t. favours that deputy can no longer directly grant to her constituents. *Corruption increases.*

Table 3.8.2. Summary Statistics: Main Models

Variable	Obs	Mean	Std. Dev.	Min	Max
Electoral District	248	16	8.962	1	31
Year	248	1990.5	2.296	1987	1994
Election Year	248	1988.875	2.426	1987	1992
Treated	248	.948	.223	0	1
Post	248	.375	.485	0	1
Corruption Crimes	248	18.733	19.899	0	119
Length of Judicial Proceedings	248	140.919	47.235	40.03	346.34
Regions of Italy	248	2.032	1.033	1	4
Deputies per District	248	18.996	12.171	1	54

Note: *Electoral District* refers to the electoral districts for Italy's national legislative elections. *Year* refers to the year in question. *Election Year* refers to the election year for the beginning of a given electoral term. *Treated* is an indicator variable capturing whether or not a district elected a (or several) national deputy(ies) accused of malfeasance in a given electoral term (1) or not (0). *Post* is an indicator variable capturing whether (1) or not (0) the year is in question is prior or after 1992, the year of the start of the *Mani Pulite* investigations. *Corruption Crimes* captures the number of corruption crimes prosecuted in the provincial public administrations of a given electoral district in a given electoral term. *Length of Judicial Proceedings* captures the ratio of the number of pending judicial proceedings, at the beginning and the end of each year, to the number of judicial proceedings started and completed in the same year. *Regions of Italy* is a categorical variable equal to North (1), Centre (2), South (3) or Islands (4). *District Magnitude* captures the number of deputies elected in a given electoral district.

Table 3.8.3. Summary Statistics: Supplementary Models

Variable	Obs	Mean	Std. Dev.	Min	Max
Percentage of Corrupt Deputies	248	.258	.163	0	.667
Charges per Deputy	248	.555	.479	0	2.791
Deputies Accused: Count	248	5.202	5.231	0	26
Charges Made: Count	248	12.677	17.248	0	120
Serious Charges Made: Count	248	9.544	15.811	0	118

Note: *Deputies Accused* captures the count of deputies per election term and district who were accused of malfeasance. *Charges Made* captures the count of charges of malfeasance made against deputies per election term and district. *Serious Charges Made* captures the count of serious charges of malfeasance made against deputies per election term and district. *Percentage of Corrupt Deputies* captures the percentage of deputies per election term and district who were accused of malfeasance. *Charges per Deputy* captures the average per capita count charges of malfeasance per election term and district.

Table 3.8.4. Main Results

VARIABLES	(1) Basic	(2) Time Trend	(3) PA Control	(4) Full Controls
Treated	0.991	0.991	1.014	-10.10***
	(1.860)	(1.864)	(1.539)	(3.543)
Post	1.667	-5.202**	-10.85**	-7.518
	(1.085)	(2.159)	(4.901)	(5.693)
Treated*Post	15.62***	15.62***	17.39***	15.00***
	(3.397)	(3.404)	(3.297)	(4.639)
Year		1.717***	2.787**	2.633***
		(0.482)	(1.016)	(0.898)
Length of Judicial Proceedings			0.0499	0.0427
			(0.0344)	(0.0325)
Regions of Italy: North				6.767**
				(3.100)
Regions of Italy: South				1.072
				(2.397)
Regions of Italy: Islands				2.084
				(6.508)
Deputies per District				0.907***
				(0.0843)
Constant	11.50***	-3,404***	-5,540**	-5,242***
	(1.085)	(958.6)	(2,026)	(1,790)
Observations	248	248	248	248
R-squared	0.176	0.188	0.197	0.489
Time Trend	NO	YES	YES	YES
Full Controls	NO	NO	YES	YES

Note: The table reports the DiD coefficient (and control variable coefficients) from OLS regressions of the effect of the *Mani Pulite* investigations on the number of corruption crimes committed by provincial level public administrations. The sample covers years 1982-1999. Dependent variable, number of provincial level public administration corruption crimes. The baseline category for the regional control is the central region. Column 1 reports the basic DiD model with no controls. Column 2 reports DiD model with a linear time trend. Columns 3 reports the DiD model with the linear time trend and the control for public administration efficiency, *Length of Judicial Proceedings*. Controls are described in Table 3.8.2. Robust standard errors are clustered at the district level. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table 3.8.5. Do Accused Politicians Re-Enter Politics Following the Scandal?

Re-enter: Yes	**Re-enter: No**	**Total**
Municipal	N/A	83 (35%)
Provincial	N/A	5 (2%)
Regional	N/A	4 (2%)
National	N/A	143 (61%)
235 (75%)	**78 (25%)**	**313 (100%)**

Appendix

Appendix

Discussion of Assumptions Required for Inference from DiD Model

In order to justify inference from the DiD model, the following assumptions are required (Lechner et al., 2011): the stable unit treatment value assumption (SUTVA), the exogeneity assumption (EXOG), the assumption that in the pre-treatment period the treatment had no effect on the pre-treatment population (NEPT), the common trend assumption (CT), and the common support assumption (COSU). SUTVA requires that the treated units are completely represented and that there are no relevant interactions between the treatment and control groups. EXOG requires that individuals in the pre-treatment period do not anticipate the treatment and change their behaviour accordingly. NEPT is very similar to EXOG, but relates to pre-treatment *outcomes* rather than covariates, that is to say that any pre-treatment changes in behaviour that anticipate the treatment should not translate into actions that affect the outcome variable. CT, instead, stipulates that if the treatment group were not subjected to the treatment, it would experience the same time trends as the control group. COSU requires that units with the same characteristics are in both the treatment and the control groups. Of these assumptions, only COSU and CT are statistically testable.

I shall address each assumption in the order presented above. Regarding SUTVA, the idea here would be that, post-scandal, due to the magnitude of the effect of the treatment untreated districts (with no corrupt national politicians) would face a scenario very different to that had their been no treatment at all. I argue that this is unlikely given the exogeneity of the scandal to provincial level administration, in the absence of a direct link between a national politician and a given provincial administration (see Section 3.3). With respect to the, very similar, EXOG and NEPT assumptions, in my setting, a violation of these assumptions would translate into provincial public administrators anticipating that one of more of their national representatives would be accused of corruption in 1992 and changing their behaviour (EXOG) such that their own corruption practices (NEPT) changed ahead of the *Mani Pulite* scandal. I argue that this is highly unlikely due to the very nature of the treatment I analyse. Prosecutors uncovering a previously hidden network of corrupt politicians have many incentives to keep their groundwork invisible, until the moment of arrest, so as to successfully apprehend the individuals in question before they change their strategy or hide their tracks. This is reflected in the manner in which Mario Chiesa (see

Section 3.3) was arrested in 1992, taken entirely by surprise and eliciting a defensive response from his party, the PSI.[38] It is highly unlikely, therefore, that ahead of the breaking of the scandal in early 1992 that national politicians themselves, let alone provincial level public administrators, would anticipate such an event or change their behaviour. With respect to the CT or 'parallel trends assumption, the most critical of the DiD assumptions in terms' of internal validity, in this case the assumption means that the districts with no deputies accused of corruption (control) and those with accused deputies (treated) were been moving in parallel to one another in terms of provincial public administration corruption ahead of the 1992 scandal which, I argue, exogenously affects local public administration behaviour. A visual inspection (Figures 3.A.4 and 3.A.5) of the data as well as analyses introducing lead and lag years to the main model (Table 3.A.3) reveal evidence supporting parallel trends in the treated and control groups.

FIGURES 3.A.4 AND 3.A.5 ABOUT HERE

Regarding COSU, in the case in question, this assumption requires that districts with the same characteristics are in both the treated and control groups. Given that this assumption is formulated in terms of observable quantities (Lechner et al., 2011) it is testable, as I demonstrate in Figures 3.A.6, 3.A.7 and 3.A.8. These Figures show the kernel distributions for three provincial level variables *Corruption Crimes*, *Length of Judicial Proceedings* and *Population* for both the treated and control groups. One can see that, indeed, there is a great deal of common support between the two groups in each case.

FIGURES 3.A.6, 3.A.7 AND 3.A.8 ABOUT HERE

[38]Bettino Craxi famously referred to Chiesa as a "mariuolo isolato" (lone wolf) (Il Corriere della Sera, 2012), in an attempt to deflect the idea that there was a wide-reaching network of corruption in which his party was involved.

Figures

Agrigento	Firenze	Perugia	Vercelli
Alessandria	Foggia	Pesaro-Urbino	Verona
Ancona	Forli-Cesena	Pescara	Vibo-Valentia
Aosta	Frosinone	Piacenza	Vicenza
L'Aquila	Genova	Pisa	Viterbo
Arezzo	Gorizia	Pistoia	
Ascoli-Piceno	Grosseto	Pordenone	
Asti	Imperia	Potenza	
Avellino	Isernia	Prato	
Bari	La Spezia	Ragusa	
Barletta-Andria-Trani	Latina	Ravenna	
Belluno	Lecce	Reggio-Calabria	
Benevento	Lecco	Reggio-Emilia	
Bergamo	Livorno	Rieti	
Biella	Lodi	Rimini	
Bologna	Lucca	Roma	
Bolzano	Macerata	Rovigo	
Brescia	Mantova	Salerno	
Brindisi	Massa-Carrara	Sassari	
Cagliari	Matera	Savona	
Caltanissetta	Medio Campidano	Siena	
Campobasso	Messina	Siracusa	
Carbonia Iglesias	Milano	Sondrio	
Caserta	Modena	Taranto	
Catania	Monza-Brianza	Teramo	
Catanzaro	Napoli	Terni	
Chieti	Novara	Torino	
Como	Nuoro	Trapani	
Cosenza	Ogliastra	Trento	
Cremona	Olbia Tempio	Treviso	
Crotone	Oristano	Trieste	
Cuneo	Padova	Udine	
Enna	Palermo	Varese	
Fermo	Parma	Venezia	
Ferrara	Pavia	Verbania	

Figure 3.A.1. List of Italian Provinces

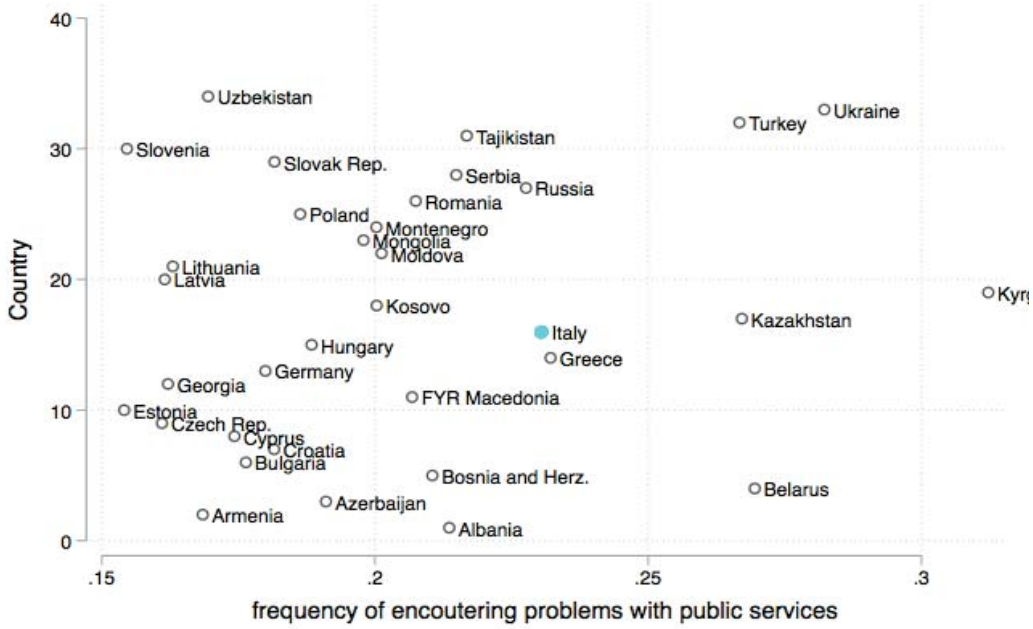


Figure 3.A.2. Problems with Public Service Provision

Average score created from the answers to questions (q809a-q809g and q811a-q811g) from the Life in Transition Survey (III, 2016), to capture how frequently citizens encounter problems with the provision of public education and public health. As can be seen above, Italy despite her position as a developed country even when compared with transitioning countries still performs poorly in terms of how frequently her citizens encounter problems with the provision of public services.

The questions read as follows: "Problem encountered with local public school/local public health - no textbooks or other supplies/frequent and unjustified absence..." - response either "Yes" or "No". Formulated in the same way for:

- Public education:
  - poor teaching
  - frequent and unjustified absence (schools)
  - overcrowded classrooms
  - facilities in poor condition
  - payments required for services that should be free
  - none of the above
- Public health:
  - frequent and unjustified absence

- treated disrespectfully by staff
- no drugs available
- long waiting times
- facilities not clean
- payments required for services that should be free
- none of the above

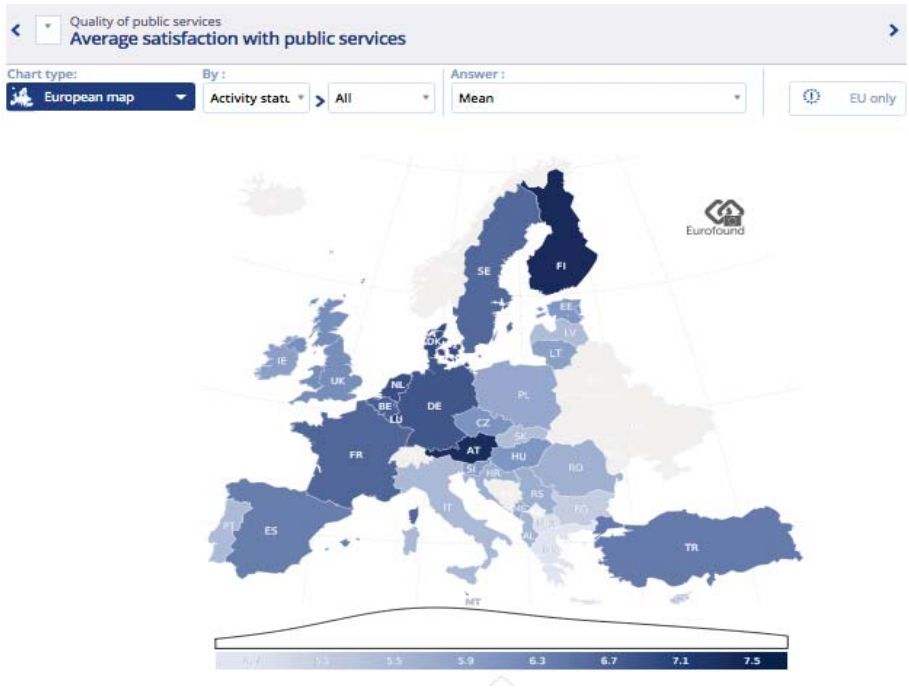


Figure 3.A.3. Satisfaction with Public Service Provision, EU

Image from European Quality of Life Survey 2016, showing the average levels of satisfaction with public services in the EU28 countries. As can be seen on the map, Italy's satisfaction levels are significantly lower than her neighbours, with a score of 5.4 as opposed, for example, to France with a score of 6.6 or Austria with 7.3 or Slovenia with 6.

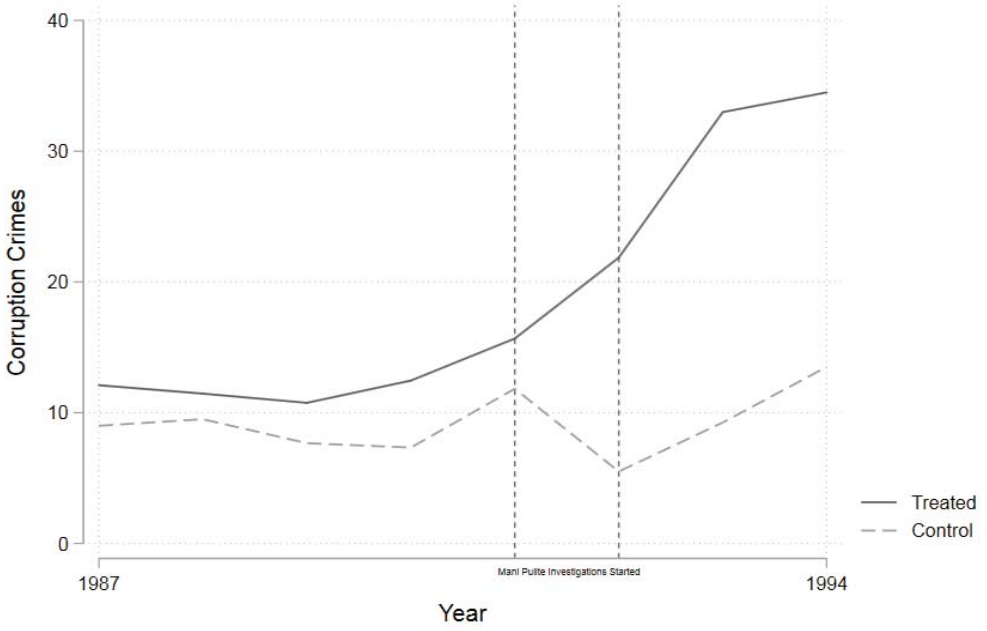


Figure 3.A.4. Common Trends in Provincial Public Administration Corruption Crimes, Dependent Variable[39]

[39]I have highlighted the relevant window (1991-1992) when the *Mani Pulite* investigations started as, not having monthly data, I cannot pinpoint exactly February 1992.

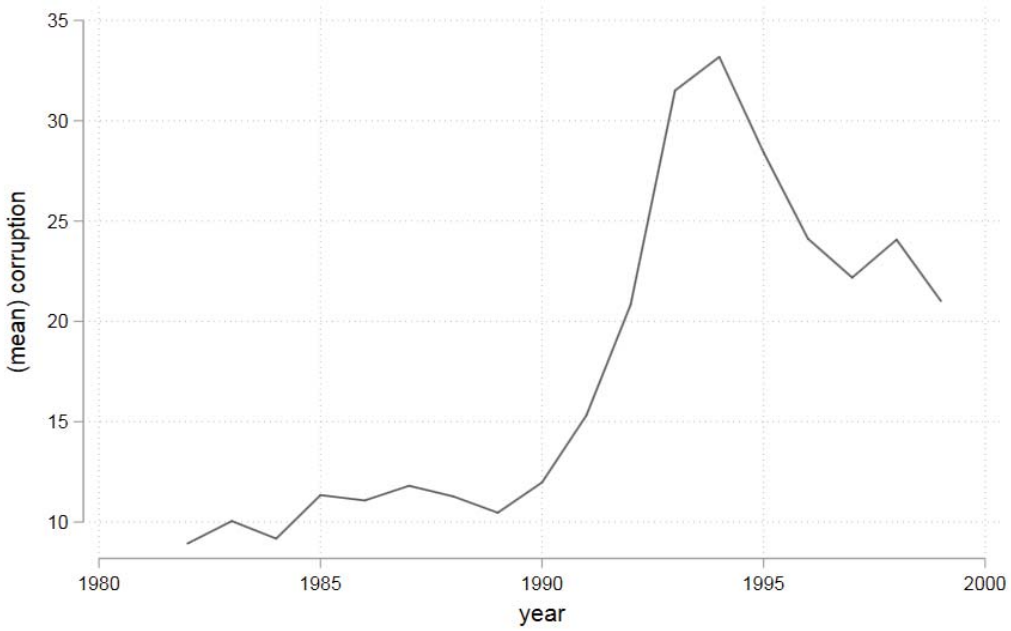


Figure 3.A.5. Raw Data for Provincial Public Administration Corruption Crimes, Dependent Variable

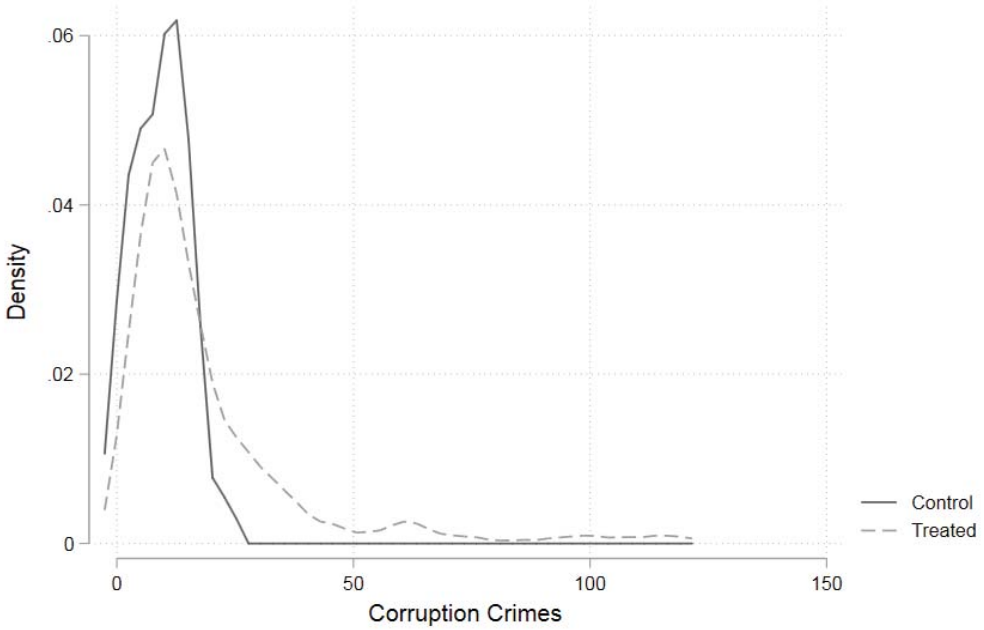


Figure 3.A.6. Common Support: Provincial Level Corruption

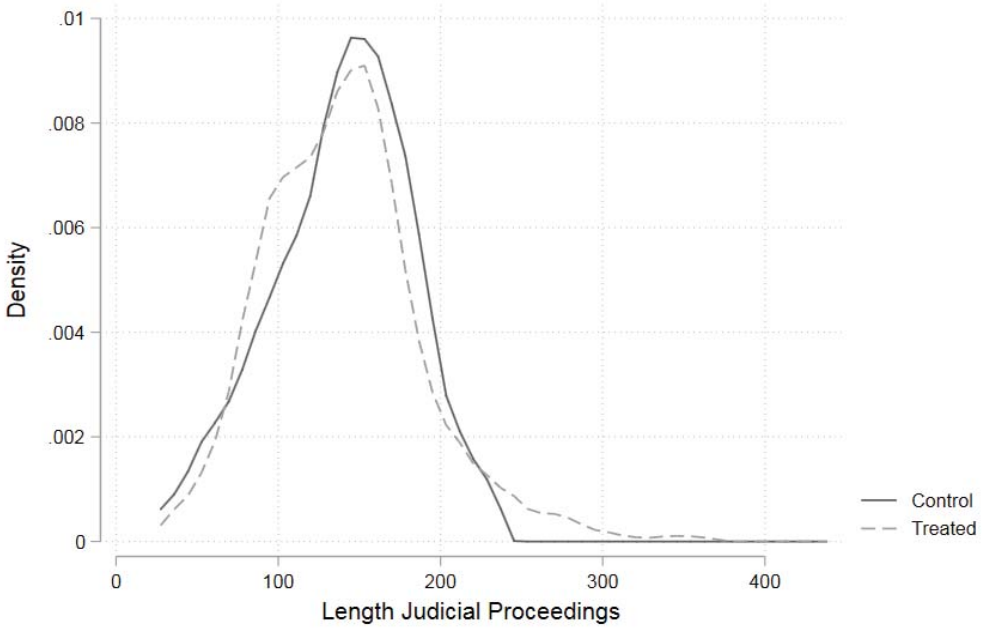


Figure 3.A.7. Common Support: Provincial Level Length of Judicial Proceedings

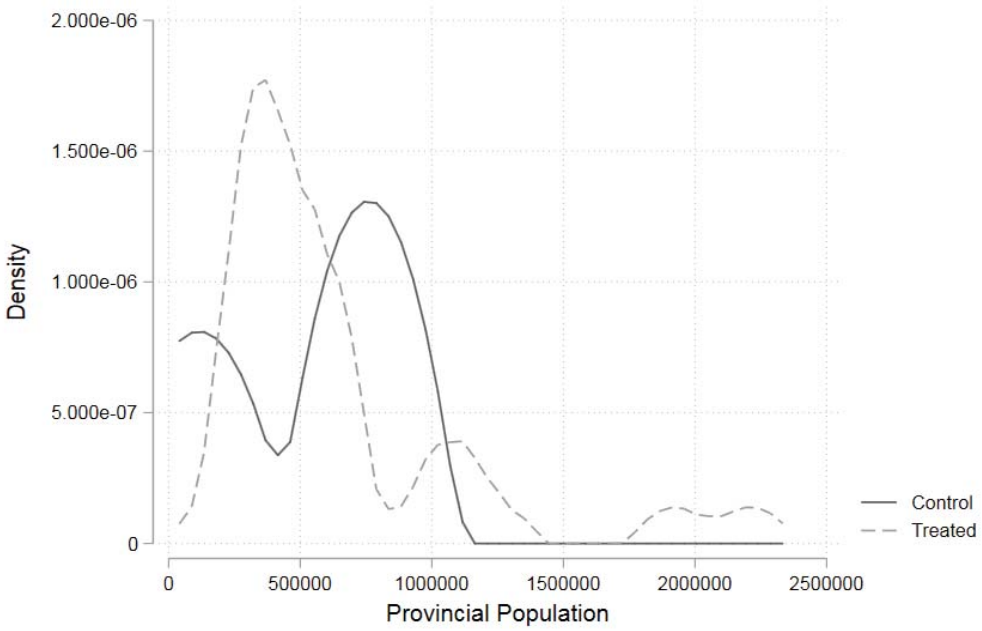


Figure 3.A.8. Common Support: Provincial Level Population

Tables

Table 3.A.1. Robustness Tests

VARIABLES	(1) Count Model	(2) Deputies Percentage	(3) Deputies Charges	(4) Returning Binary	(5) Returning Intensity 1	(6) Returning Intensity 2
Treated	-0.492***					
	(0.176)					
Post	-0.529**	0.273	1.850			
	(0.229)	(2.474)	(2.573)			
Treated*Post	0.738***					
	(0.137)					
High Treat. Percentage		-13.69*				
		(7.406)				
High Percent.*Post		25.29**				
		(9.690)				
High Treat. Charges			-13.80**			
			(6.306)			
High Charges*Post			21.71**			
			(9.229)			
Returning				13.14**		
				(4.896)		
Return Intensity: Ind.s					9.122***	
					(2.686)	
Return Intensity: Charges						2.073**
						(0.952)
Constant	-316.5***	-5,493***	-5,275***	4,957***	2,895*	2,762
	(78.59)	(1,579)	(1,571)	(1,585)	(1,626)	(1,657)
Observations	248	248	248	186	186	186
R-squared	.	0.538	0.528	0.070	0.382	0.262
Time Trend	YES	YES	YES	YES	YES	YES
Full Controls	YES	YES	YES	NO	NO	NO

Note: Columns 1-3 report the DiD coefficient (and control variable coefficients) from negative binomial and OLS regressions of the effect of the *Mani Pulite* investigations on the number of corruption crimes committed by provincial level public administrations. The sample covers years 1982-1999. Columns 1-3 replicate the Full Controls Model from Table 3.8.4. Columns 4-6 constitute a proof of concept and are without controls. Column 1 reports results from a negative binomial regression for count data. Column 2 replaces the standard *Treatment* indicator with an indicator equal to 1 only if the number of accused deputies in a given district-election term was above the 75th percentile. Column 3 replaces the standard *Treatment* indicator with an indicator equal to 1 only if the total number of charges in a given district-election term was above the 75th percentile. Columns 4-6 report proof of concept OLS regressions, where the DV is still provincial public administration corruption crimes, but variables capturing whether corrupt deputies return to a district in a given electoral term are included. In Column 4 an indicator variable capturing whether or not a returning corrupt deputy was elected in the district is included. In Column 5 a variable capturing how many corrupt deputies returned is included. In Column 6 a variable capturing how many charges were associated with the returning deputy is included. Robust standard errors are clustered at the district level. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table 3.A.2. Sensitivity Analyses

VARIABLES	(1) Most Charges	(2) Most Serious Charges	(3) Most Active Deputies	(4) Most Act. Deputies, Serious	(5) Least Efficient Prov. PAs
Treated	-0.365	1.015	0.841	1.067	1.304
	(2.180)	(2.296)	(2.629)	(3.441)	(2.799)
Post	-13.35**	-13.70***	-9.820*	-12.44**	-13.94**
	(4.995)	(4.680)	(5.572)	(5.595)	(6.105)
Treated*Post	12.91***	11.31***	18.69***	18.80***	19.65***
	(3.618)	(3.654)	(5.011)	(5.501)	(5.087)
Constant	-5,297***	-5,828***	-4,081**	-5,259***	-5,949***
	(1,762)	(1,782)	(1,694)	(1,748)	(1,998)
Observations	225	227	224	223	237
R-squared	0.200	0.171	0.209	0.202	0.211
Time Trend	YES	YES	YES	YES	YES
Full Controls	YES	YES	YES	YES	YES

Note: All columns report the DiD coefficient OLS regressions of the effect of the *Mani Pulite* investigations on the number of corruption crimes committed by provincial level public administrations. The sample covers years 1982-1999. All models replicate the Full Controls Model from Table 3.8.4. Column 1 reports results eliminating the districts with a number of charges within the 90th percentile of the distribution of the variable. Column 2 reports results eliminating the districts with a number of serious charges within the 90th percentile of the distribution of the variable. Column 3 reports results eliminating the districts with a number of charges per capita within the 90th percentile of the distribution of the variable. Column 4 reports results eliminating the districts with a number of serious charges per capita within the 90th percentile of the distribution of the variable. Column 5 reports results eliminating the districts with a level of inefficiency within the 90th percentile of the distribution of the variable. Robust standard errors are clustered at the district level. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table 3.A.3. Introducing Lags and Leads to Interaction

VARIABLES	(1) Basic	(2) Time Trend	(3) PA Control	(4) Full Controls
Treated	0.690	0.690	0.378	-10.88**
	(2.101)	(2.106)	(2.069)	(4.301)
Lead 2: 1990	-2.250	-0.991	-0.405	-0.786
	(2.512)	(2.646)	(2.937)	(2.892)
Treated*Lead 2	3.270	3.270	3.783	3.449
	(2.854)	(2.860)	(3.265)	(3.075)
Lead 1: 1991	6	7.888	6.701	7.473
	(4.657)	(5.185)	(5.372)	(5.286)
Treated*Lead 1	-1.764	-1.764	-0.665	-1.380
	(5.155)	(5.166)	(5.319)	(5.338)
Post	0.250	2.767	0.0637	4.502
	(1.532)	(2.958)	(6.086)	(7.070)
Treated*Post	10.17***	10.17***	11.75***	8.425
	(3.409)	(3.417)	(2.825)	(5.667)
Lag 1: 1993	2.500	3.129***	2.528*	2.919**
		(0.587)	(1.365)	(1.134)
Treated*Lag 1	8.627**	8.627**	8.276**	8.504**
	(3.675)	(3.683)	(3.468)	(3.697)
Lead 2: 1994	4	5.259***	4.451**	4.976***
		(1.174)	(2.082)	(1.725)
Treated*Lag 2	8.635**	8.635**	7.816**	8.349**
	(3.758)	(3.766)	(3.737)	(3.750)
Constant	10.75***	1,262	72.81	835.9
	(1.532)	(1,167)	(2,702)	(2,244)
Observations	248	248	248	248
R-squared	0.210	0.211	0.212	0.506
Time Trend	NO	YES	YES	YES
Full Controls	NO	NO	YES	YES

Note: The table reports the DiD coefficient from OLS regressions of the effect of the *Mani Pulite* investigations on the number of corruption crimes committed by provincial level public administrations. Lags and leads for the two years prior and post the investigations are included and interacted with the *Treatment* variable. The sample covers years 1982-1999. Dependent variable, number of provincial level public administration corruption crimes. Column 1 reports the basic DiD model with no controls. Column 2 reports DiD model with a linear time trend. Columns 3 reports the DiD model with the linear time trend and the control for public administration efficiency, *Length of Judicial Proceedings*. Controls are described in Table 3.8.2. Robust standard errors are clustered at the district level. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Chapter 4

Electoral Reform, Representative Democracy and Agency Relations

Abstract

We collect panel data on the universe of Italian politicians from all levels of government over the period 1987-2013 and obtain a complete picture of the career paths of male and female politicians across the whole arc of their careers in public office. We use our unique dataset to analyse the effects on female political representation of an Italian reform which, in 2005, changed the electoral rule for national elections from (mostly) majoritarian to proportional, but did not affect subnational level elections. We find that proportional electoral rules favour the election of women. This is consistent with the fact that proportional systems value gender diversity more than majoritarian ones, while majoritarian systems rely on head-to-head electoral races, which are not gender neutral. We present evidence that the change in electoral rules is not associated with a quality-quantity trade-off in terms of the election of women. Results are driven by gender traditional regions, suggesting that cultural factors mediate the effects of electoral reforms.

Joint work with Paola Profeta.[1]

[1] A version of this paper is currently circulating under the name "Do Electoral Rules Matter for Women's Representation?". We thank Vincenzo Galasso and Tommaso Nannicini for providing us with data on national politicians, polling data and voting margins for specific national elections; Michele Castiglioni for aggregate data on national candidates; Armando Miano for individual data on the 2008 national election. We thank Anthony Bertelli, Ana Weeks, Vincenzo Galasso, Massimo Morelli, Tommaso Nannicini and Johanna Rickne and participants at EPCS 2018, IIPF 2018, SiSP 2018, SIEP 2018, Dondena Political Economy Workshop 2018 and NYU internal seminar 2017 for useful comments. Any remaining errors are ours.

Introduction

Women are under-represented on the political stage across the globe. According to the Inter-Parliamentary Union database, only 11 countries out of 193 have more than 40% of women in their national parliaments and 121 countries have less than 25% female representation (IPU, 2017). This picture does not become much less bleak when one considers only advanced economies. Not a single OECD country has yet reached gender parity in its national parliament (the highest is Iceland with 47.6%) and the OECD average remains at 28.68% (OECD, 2017).

There is a rich and lively debate surrounding whether this phenomenon is due to voter bias (Fréchette et al., 2008; Murray et al., 2012; Le Barbanchon and Sauvagnat, 2018) or party bias (Norris and Lovenduski, 1993) and whether contextual and structural factors can be moderated by competition (Folke and Rickne, 2016). Existing studies have argued that electoral rules play an important role (Rule, 1987) in explaining women's under-representation across the globe, but more remains to be done in terms of honing causal relationships.

This paper develops a within-country analysis to appropriately identify the causal effects of electoral rules on female political representation. More precisely, we exploit how different electoral rules across levels of government of the same country - mainly majoritarian versus proportional - have a heterogeneous impact on female representation. We respond to calls for more in-depth, single country, longitudinal studies capable of taking into account how electoral rules interact with other changing features of the political landscape and exploring local patterns of female representation too (Krook, 2010b; Hinojosa and Franceschet, 2012).

We focus on Italy and assemble data on the universe of Italian politicians from all levels of government - national, regional, provincial, municipal - over the period 1987-2013. Our dataset provides a complete picture of female representation at all levels of Italian government for these years. We exploit the existence of different electoral rules across levels of government. More precisely, we analyse the 2005 introduction of a reform which changed the electoral rule for national elections from a mixed-member system - whereby 75% of representatives were elected via a majoritarian system and 25% via a proportional system - to a closed list proportional rule with a majority bonus. Since the reform applies only to national elections and not to subnational ones, we use a Difference-in-Differences (hereafter, DiD) approach to show that the proportional electoral rule increases female political representation at the national level.

This result is consistent with female politicians being more averse to personal exposure in politics. When we refer to personal exposure, we mean the fact that in majoritarian systems more emphasis is placed on individuals than on parties, with candidates' personal traits and experience being much more closely scrutinised than under proportional rule where the party, its ticket and policies, is of more central importance. In fact, the nature of political races differs in majoritarian and proportional electoral systems, with an individual focused, head-to-head kind of race in majoritarian systems and a broader, more party-based perspective in proportional systems (Norris, 1985). Personal exposure of the candidate is stronger in majoritarian than in proportional systems, which also implies a stronger accountability in majoritarian systems (as discussed broadly in the representation-accountability trade-off literature, see Carey and Hix (2011) for a helpful summary).

We also show that the increase in the number of women does not come at the price of the quality of elected politicians. We measure quality by educational level and subnational experience, and provide evidence that, in the Italian case, the overall quality of the politicians elected to national office following the proportional reform remains stable or, if anything, it increases, and this is due to the overall higher quality of female politicians. Interestingly, when we restrict our attention to national elections in 2013, we find evidence of a negative selection within the group of women. Namely, the elected women under the proportional system are not those with the highest quality among the female candidates. Thus, the quality of politicians could have been increased yet more had the best female candidates been selected. Finally, exploiting variation in cultural norms within the country, we provide evidence that the more gender traditionalist regions of Italy are those that most increased their female representation with the reform, but were also the regions driving the divergence between the quality of candidates and elected female politicians that we do not observe for men.

This paper provides several innovative contributions to the analysis of electoral rules and female representation. We first provide causal evidence of a positive relationship between proportional systems and female representation in connection to the different types of competition associated with different electoral rules. The second major achievement is that this causal relationship is assessed in a within-country analysis, which considers all levels of government. As we will see in Section 4.2, most of the existing evidence regarding proportional electoral rules and their favourable conditions for female representation are cross-national or compare pre- and post-electoral chance levels of female representation without a within-country counterfactual (Roberts et al., 2013). Moreover, apart from few exceptions in the fields of public administration (Cayer and Sigelman, 1980) and political science (Bratton and Ray, 2002), most of the existing studies have concentrated solely on *national* governments. However, this is only the tip of the iceberg. Subnational levels of government are crucial for how power gets translated into action. Third, we shed light on the possible quantity-quality trade-offs associated with electoral rules and female representation.

Our analysis is focused on Italy, an interesting country to consider because it experienced several reforms in electoral rules which affect differently its various levels of government, thus providing a good opportunity to exploit the within-country variation in electoral systems over time. Italy lags behind its Western neighbours in all gender statistics, including female political empowerment.[2] Given our result that the effects are stronger in more unequal gender contexts, we expect the results obtained in Italy to be amplified in other contexts, such as certain developing countries where unequal gender norms are dominant. This contributes to make our analysis an interesting benchmark.

The paper is organised as follows. Section 4.2 discusses the related literature. Section 4.3 describes the Italian institutional context. Section 4.4 describes our data and provides

[2]Italy currently ranks just above the halfway point in terms of female representation as compared to the other EU28 countries. However, only in the most recent elections has Italy achieved such levels of female representation. For example, in 2000 Italy had only 11% women in national office, in 2005 still only 11.5%, and in 2010 21.3%. At different levels of subnational government female representation varies substantially, but remains low: in 2013 in Italy, 17% of politicians at the regional level were female, 16% at the provincial level, and 21% at the municipal level.

descriptive statistics. Section 4.5 presents the estimation strategy and main results and performs robustness checks. Section 4.6 discusses the results and concludes.

Electoral Systems and Female Political Representation

There is consensus in the literature on political representation that countries applying proportional rules are associated with higher numbers of women in their national parliaments than those with majoritarian rules (Norris, 1985; Rule, 1981, 1987; Rule and Zimmerman, 1994; Rule, 1994; Matland and Studlar, 1996; Matland, 1998; Vengroff et al., 2003; Kittilson and Schwindt-Bayer, 2012). Indeed, the Inter-Parliamentary Union reports that in 2016 women won 23.9% of seats in chambers elected by proportional rule and 24.4% in those using either proportional or mixed electoral systems, compared to 15% of seats in chambers elected through a majority rule and 22.2% where the chamber is appointed or indirectly elected (Inter-Parliamentary Union, 2016). There has been some careful and well-argued debate as to the robustness and magnitude of the effect of electoral rules on women's parliamentary representation (Salmond, 2006; Roberts et al., 2013), but the influence of the electoral rule on women's electoral fortunes is widely reported and persistent.

Of course, many other factors also play a role in the number of women elected to political office, including political culture[3] (Norris, 1985; Rule, 1987; Kenworthy and Malami, 1999; Reynolds, 1999; Inglehart and Norris, 2003; Yoon, 2004), the distribution of party ideology (left-wing and more environmentally conscious parties have been found to nominate more female candidates (Caul, 1999; Kunovich, 2003; Kittilson, 2006)), the interaction between female labour force participation and whether the electoral system is oriented towards candidates or parties (Iversen and Rosenbluth, 2010), the interaction between a district's social eligibility pool and party culture (Sanbonmatsu, 2010), female labour force participation which can increase women's likelihood of participating in politics (Norris, 1985; Rule, 1987; Matland, 1998), a stronger welfare state that helps women to enter the labour force, directly provides jobs and changes the political interests of working women (Rosenbluth et al., 2006), and targeted policy interventions such as gender quotas in candidate lists that have been shown to be effective in increasing female representation.[4] Institutional features such as electoral rules have been generally found to have a strong and immediate[5] impact on female representation.

[3]This includes corruption which has been shown to be negatively associated with female political representation (Dollar et al., 2001; Swamy et al., 2001), however the direction of the causal link here is unclear (Sung, 2003).

[4]Electoral gender quotas are widely studied (see, for example, Dahlerup and Freidenvall (2011); Krook (2010a); Krook and Mackay (2010). Recent research has shown that they may be effective not only at increasing female representation, but also at reducing voters' gender stereotypes (Beaman et al., 2009), and increasing the overall level of quality of politicians (Baltrunaite et al., 2014; Weeks and Baldez, 2015; Allen et al., 2016; Besley et al., 2017). However, gender quotas may also not be sufficient to increase female representation if parties discriminate against women and place them in weak strategic positions (Bagues and Campa, 2017; Casas-Arce and Saiz, 2015).

[5]Thames (2017) finds that long term effects are also instigated by electoral reforms, but the vast majority of the literature focuses on short-term effects and finds much evidence.

Proportional systems are argued to promote greater representation of women through the following mechanisms: candidates' characteristics, incumbency patterns, district magnitude and specific features of proportional systems (e.g. open/closed lists or zipper systems, single or multi-member districts). Firstly, proportional and majoritarian systems present parties with different vote maximising incentives: in proportional systems a balanced and diverse ticket is preferable in order to appeal to a wider spectrum of voters, whereas in majoritarian systems the optimal strategy is to choose the strongest candidate with the broadest appeal, experience or vote base. As Norris (1985)[p.99] puts it, given that in majoritarian settings more emphasis is placed on individuals than on parties, "candidates' abilities, experience, policies, and personal characteristics are scrutinised, their sex may play a more important role than under proportional arrangements". Secondly, patterns of incumbency turnover vary across electoral systems with fewer incumbents being re-elected under proportional rules (Norris, 1985, 2006), which should favour women who have historically been under-represented in most political contexts. Thirdly, party and district magnitude vary significantly across electoral contexts: proportional systems have consistently higher district magnitudes (and higher party magnitudes), so parties can pull from deeper in their lists, which scholars have argued increases the chances of women being elected (Rule, 1987; Norris, 2006). Matland and Brown (1992) find that, indeed, in the USA, a larger district magnitude has a strong and positive impact on female representation,[6] as confirmed by results for Wyoming (Clark et al., 1984), West Virginia (Welch and Studlar, 1990) and a US-wide candidate survey (Carroll, 1994).[7] Recent analyses in contexts such as Brazil (Meireles et al., 2017) have confirmed this positive link between district magnitude and female representation. Fourth, proportional representation rules allow for features such as closed lists which encourage - or even force in the case of zipper systems - parties to include women in their lists to present a balanced ticket. However the evidence on how the nature of the list - open or closed - used in proportional elections affects female representation is mixed. Early works argued that open lists were preferable for female candidates (Shugart, 1994; Rule and Shugart, 1995) as voters can express a preference for a particular candidate and move them higher/lower on the list, thus preventing parties from holding women back by putting them low on the list. Open lists, however, tend to lead to the cultivation of the personal vote (Carey and Shugart, 1995) and this can have a negative effect on the representation of women when negative cultural bias against women is present (Larserud and Taphorn, 2007; Valdini, 2013; Buitrago and Aroca, 2017).[8] Finally, the

[6] See however Welch and Studlar (1990).

[7] In Norway, Matland (1993) finds that the effect of district magnitude on female representation follows a cyclical pattern: playing no role when there is no demand for female representation, playing a significant role when women mobilise and demands are made, then reducing again once women are well established in the political field.

[8] There is also evidence that in open list contexts policy interventions such as quotas (Jones and Navia, 1999) may be ineffective in that they have a positive effect with low numbers of women, but demonstrate diminishing rates of return as the number of female candidates increases. Indeed, more recent studies have generally found closed lists to be conducive to higher female representation when combined with placement mandates (Htun, 2002; Htun and Jones, 2002; Schmidt, 2009), but, again, this is not always the case. For example, Esteve-Volart and Bagues (2012) find that parties strategise against female candidates by placing them lower on closed lists even in the presence of gender quotas, finding ways to circumvent even targeted

nature of a district itself - whether it is a single- or multi-member district - has been found to affect female representation, with multi-member districts being found to favour higher female representation (King, 2002). In sum, not all proportional systems are equal for women's representation.

The higher presence of women in proportional as compared to majoritarian systems is also consistent with the different nature of the political race of the two electoral rules. The literature has mainly concentrated on the benefits of electoral competition for political outcomes: competition is related to the election of higher quality politicians, (Galasso and Nannicini, 2011; Besley et al., 2017) the reduction of discrimination against women (Esteve-Volart and Bagues, 2012; Besley et al., 2017) and the retention and promotion of the most competent politicians to top positions (Folke and Rickne, 2016). It is however difficult, if not impossible, to compare the competitiveness of a proportional and a majoritarian system (see Galasso and Nannicini (2017)). What is certain is that in majoritarian systems personal exposure of the candidate matters more than in proportional ones. Thus, when we focus on the political outcome of gender-balanced representation, there are two potential channels to consider. First, if female politicians are more averse to personal exposure in political races (see Kanthak and Woon (2015)), they prefer not to present themselves as candidates in majoritarian systems, which are based on head-to-head individual races. Second, female politicians are less likely to be nominated as candidates by parties in majoritarian systems because they are perceived as less likely to be elected or to be able to commit to a continued, long-term political career (see Norris and Lovenduski (1995); Matland and Studlar (1996); Hinojosa (2009, 2012); Iversen and Rosenbluth (2010)).[9]

The Italian Electoral System

Italy has experienced several major electoral reforms over the years. The Italian Parliament is composed of the House (*Camera*) and the Senate (*Senato).* From 1946-1993 parliamentarians were elected under an open list proportional system with 32 districts for the House and 21 for the Senate. Following the 1993 *Mattarellum* reform, parliamentarians were elected via a mixed methods system with two tiers (25% closed-list proportional with a 4% vote threshold and 75% single round majoritarian with 475 single-member districts, hereafter SMDs). The electoral rules were changed again in 2005 with the *Legge Calderoli* or *Porcellum* reform,

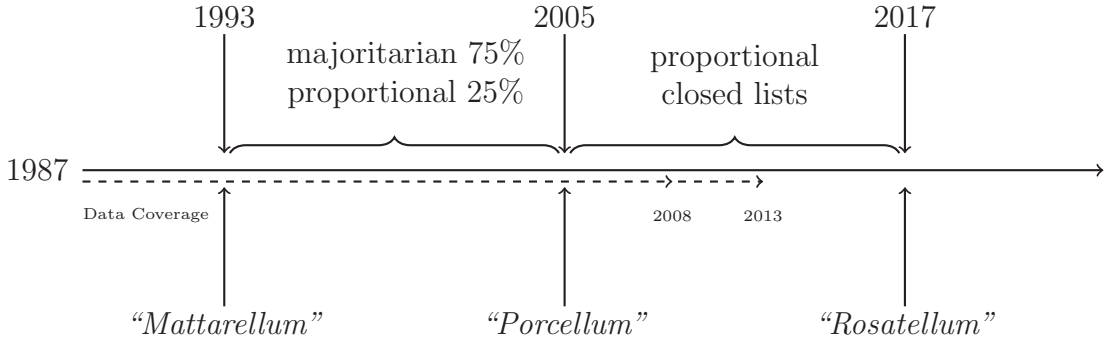
policies. There is also evidence that quota design overrides the nature of the list being used (Schwindt-Bayer, 2009).

[9]The importance of electoral rules' impact on candidate nomination and selection processes cannot be overstated, such effects can even overshadow gender quotas. For example, Hinojosa (2009) notes that the conservative *Unión Demócrata Independiente* party outperforms all three major Chilean centre-left parties in terms of female representation even though the latter three use gender quotas. Gender quotas however can be difficult to implement for constitutional or cultural reasons. In Italy, gender quotas were introduced in 1993 at both national and municipal level, but remained in place only until 1995 when they were declared unconstitutional by the Supreme Court of Cassation (*Corte Suprema di Cassazione*). Thus, at the national level, only the election of 1994 was held with quotas and at the municipal level only the elections held in the years 1993-1995.

returning to a proportional system, but this time with closed lists and 27 districts for the House and 20 for the Senate. This system entailed a majority bonus for the winning coalition of party lists.[10] Most recently, the *Rosatellum* passed in the autumn of 2017.[11]

Timeline 1 summarizes the timeline of national electoral reforms in Italy. We consider the period 1987-2013. During this period national elections were held in 1987, 1992, 1994, 1996, 2001, 2006, 2008 and 2013. The number of parliamentarians and senators has remained fixed for this whole period: 630 parliamentarians and 315 senators. From 1994 to 2013, the Italian party system has been dominated by two main coalitions of parties: centre-left and centre-right. Yet, the system has remained relatively fragmented, with parties outside the two main coalitions attracting significant electoral support.

Timeline 1. National Electoral Reforms in Italy, 1993-2017



We will be focusing on the 2005 *Porcellum* reform.[12]

The 2005 reform was not intended to influence female representation, the reformers were more interested in the balance of power between parties. In fact, the battle lines of the debate around electoral reform at the time centred on party politics and which parties were likely to benefit most from the reform.[13] Indeed, "the desire to increase women's representation [...] is

[10]In the House, there was an electoral threshold of 10% for coalitions and of 4% for party lists running alone; there was also a threshold of 2% for party lists belonging to a coalition above the 10-percent threshold. In the Senate, the same thresholds were 20% for coalitions and 8% for parties running alone. The main difference between the Senate and the House is that both the majority bonus and the electoral thresholds were calculated at the regional level for the Senate.

[11]The Rosatellum introduces a mixed electoral system with 232 SMDs (37%) to be elected via majoritarian rule and 386 districts (plus 12 seats for foreign constituencies) (63%) to be elected via closed list proportional rule, with a gender quota imposed on all parties ensuring that no more than 60% of the candidates can be of one sex.

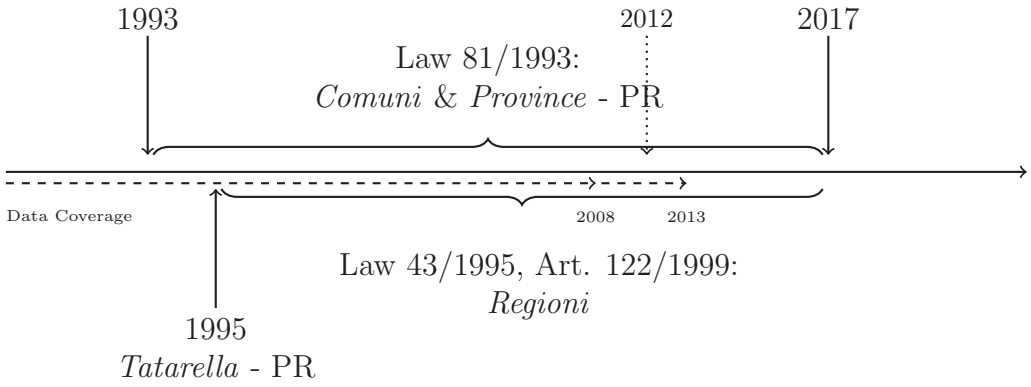
[12]See section 5.4 for the analysis of the 1993 *Mattarellum* reform where we also explain why it is used only as a robustness check and not as a main analysis.

[13]Translation by the authors: "Calderoli said that it [the 1993 reform] had been designed purposefully to ensure that the centre-left could not win a majority in the 2006 elections, as many centre-right figures have since confirmed in debates and interviews. *"Calderoli disse che era stata pensata appositamente per non far vincere con una maggioranza chiara il centrosinistra alle elezioni del 2006, come oggi confermano senza problemi in dibattiti e interviste molti esponenti del centrodestra allora al governo"* (Il Post, 2012).

rarely, if ever, a primary demand of reformers" (Thames, 2017).[14]

We now turn to the subnational levels of government: regions, provinces, municipalities. Italy is a unitary state composed of 20 regions with devolved powers.[15] The provincial level of government consists of 97 provinces. The municipal level of government consists of 7,971 *comuni* and 14 *città metropolitane*.[16] More information on the functioning of these administrative levels is available in the Appendix (Section 4.A.1).

Timeline 2. Subnational Electoral Rules in Italy, 1993-2017



Timeline 2 shows the subnational electoral rules in place during the time period under consideration. The regional elections in the period under analysis were mostly governed by (versions of) the 1995 *Legge Tatarella*, which was mixed, with 80% of the seats being assigned via an open list proportional rule and 20% of the seats being assigned via a majoritarian rule.[17]

The provincial and municipal elections, on the other hand, were governed by Law 81/1993. The electoral rule here was also proportional, but the 1993 law established that mayors were

[14]The desire to increase party seat shares (Remington and Smith, 1996; Boix, 1999; Benoit and Schiemann, 2001; Benoit and Hayden, 2004), aspirations for greater policy influence (Bawn, 1993), and voter response to gerrymandering (Tolbert et al., 2009) or corruption (Katz, 1996) tend to take precedence. The 2005 Italian reform differs from the 1993 one, where gender quotas were integrated into the reform and a significant part of the debate focused on them.

[15]In alphabetical order: Abruzzo, Basilicata, Calabria, Campania, Emilia-Romagna, Friuli-Venezia Giulia, Lazio, Liguria, Lombardia, Marche, Molise, Piemonte, Puglia, Sardegna, Sicilia, Toscana, Trentino-Alto Adige, Umbria, Valle d'Aosta, Veneto. 5 of these regions (Sicilia, Sardegna, Trentino-Alto Adige/Südtirol, Valle d'Aosta and Friuli-Venezia Giulia) have special degrees of autonomy and there are 2 autonomous provinces (Trento and Bolzano, which compose the Trentino-Alto Adige/Südtirol region). Article 116 of the Italian Constitution grants these regions powers related to legislation, administration and finance. We invite interested readers to consult the Italian constitution (L'Assemblea Constituente, 1946) for more information on the *Regioni a Statuto Speciale* as we must limit our attention to the other regions due to space constraints.

[16]Bari, Bologna, Cagliari, Catania, Firenze, Genova, Messina, Milano, Napoli, Palermo, Reggio Calabria, Roma Capitale, Torino and Venezia.

[17]*Panachage* was permitted, so voters could distribute their votes to a candidate for the presidency and a list that was not the one he/she was associated with. The law also had mechanisms to protect minorities in case of a landslide win for a single list and to ensure some stability of governance in case of a split election.

to be directly elected by their own constituents and instigated a majoritarian mechanism (assigning 60% of available seats to the winning coalition).[18]

Data

To assemble our unique dataset, we combine various data sources and we manually collect additional information when missing.

Starting from politicians at subnational levels of government, we collect the name, date of birth, gender, education level, profession, district of election and political role of all elected politicians for the years 1987-2013 from the municipal, provincial and regional levels of government. These data are provided by the Ministry of Internal Affairs (*Ministero dell'Interno*) and include all mayors, councillors, executive officers and presidents for the aforementioned subnational levels of government. The data are provided in a sparse way and separately for the different levels of government, so we had to make a concerted effort to collect, assemble and render them all usable. Indeed, we focus on *all* elected figures (not just mayors), giving us the full picture of female political representation in Italy. As can be seen in Figure 4.7.1, female representation has increased significantly in Italy over the years, but remains overall at just over 20% at its highest point in our sample. Figure 4.7.2 shows the variation of the level of female political representation across subnational levels. As can be seen, here too female political representation is very low and varies significantly from level to level.

FIGURES 4.7.1 & 4.7.2 ABOUT HERE

Moving to national politicians, we first collect aggregate data on the candidates[19] who put themselves forward for the national elections in the period 1987-2013. These data are provided by Castiglioni (2018). For the 2013 national election only, we also have detailed information at individual level on candidates (age, gender, education, district of election and of birth, profession, party affiliation), drawn from Galasso and Nannicini (2015).

We then collect data on elected politicians at the national level, i.e. members of the Italian Parliament from 1987 to 2013. For the national elections of 1987, 1992, 1994, 1996,

[18]The law split municipalities into two groups: those with less than 15,000 inhabitants and those with more. Both groups have to be elected directly by citizens via plurality rule. The former group have single-round elections, whereas the latter group's elections are governed by a run-off rule. The former group have the option of expressing a preference for a specific councillor as well as the mayoral candidate of choice, whereas in the latter group the elections allow for a disjoint preference between mayoral candidate and party list, but not specific preference for an individual council member. Both systems also entail a mechanism whereby the winning mayoral candidate obtains two-thirds of all seats on the municipal council with the remaining third being distributed among the losing lists in proportion to their vote shares. See Bordignon et al. (2016) for more details.

[19]Data on candidate are available only for national elections, as there is no systematic collection of data on candidates at subnational levels.

2001 and 2006 data come from Gagliarducci et al. (2011) and include detailed demographic characteristics (age, gender, place of residence, education), self-declared previous job, parliamentary appointments (president, vice-president, secretary of the parliament or of a legislative committee), party affiliation and experience (member of the party directive board at the local, regional or national level), local government experience (mayor, councillor, regional president etc.) and system of election. For the national elections of 1994, 1996 and 2001 (pre-reform elections) Gagliarducci et al. (2011) also provide information on the margin of victory with which a given politician won his/her election. Based on this information, we create our own measures, defining safe a seat where in the previous election the same party (or party grouping, given the high frequency with which parties and coalitions change name from election to election in Italy) won with a margin that exceeded the mean for that election, competitive a seat that was won or lost in the previous election by less than the average margin for that election or that was won by the same party (or party grouping) in the previous election but by a tight margin,[20] and 'no chance' a seat that was won in the previous election with a margin that exceeded the mean for that election by another party (or party grouping).[21] Our measures predict the seat correctly in 86.5% of cases. For the 2008 and 2013 national elections similar data containing detailed individual characteristics on elected politicians are provided by Armando Miano (2008 election) and are drawn from Galasso and Nannicini (2015) (2013 election). For the 2013 election (post-reform election), Galasso and Nannicini (2015) also provide information on political *candidates* and estimates of how many seats each party was expected to obtain, according to polls, in each district, both in the House and the Senate. These estimates are elaborated based on data from a research centre specialised in electoral studies (Centro Italiano Studi Elettorali, CISE) which conducted both original polls and performed projections. The poll-based estimates categorise positions on each list in each district into different statuses: safe (i.e. the candidate in this position is expected to win), competitive (i.e. the candidate in this position in is a tight race where the seat could be just won or lost according to the polls) and 'no chance' (the candidate is in a position where the seat is expected to be lost). The CISE polls were generally accurate, predicting the seat correctly in 90% of cases.

The same datasets also provide the variables which we use as controls in the main analysis: year (a linear time trend), region of election and the regional magnitude for the region where the politician is elected. They also provide a measure of regional magnitude.[22]

Summary statistics about the individual characteristics of these politicians are provided in Table 4.8.1 (all levels of government), Table 4.8.2 (national politicians, 1994-2001) and Table 4.8.3 (national politicians, 2013), while the overall share of women in safe, competitive and 'no chance' seats under the two electoral systems are presented in Table 4.8.4. We will

[20]Tight margin here defined as half of the mean margin of victory for that election.

[21]We are aware of several alternative methods (Stoffel, 2014; Kotakorpi et al., 2017) that would be more appropriate than the measures we are able to calculate, but unfortunately data restraints mean that we cannot implement them.

[22]That is to say, the number of seats available per region calculated by summing the electoral districts within a given region. We do this as districting changed across electoral systems over time, but the geographical regions remained the same so the seats available within their borders are more comparable.

return to the description of Table 4.8.4 in Section 5.2.

TABLES 4.8.1, 4.8.2, 4.8.3 & 4.8.4 ABOUT HERE

Our final dataset delivers a complete picture of female political representation at all levels of government for the same country and its evolution over the considered period. As aforementioned, such a comprehensive picture is rare in existing studies. A table summarising all of our data sources is provided in the Appendix (Section 4.A.2, Table 4.B.1).

Empirical Strategy and Main Results

We use our dataset to answer the following questions:

- **Question 1:** Are more female politicians elected under a proportional electoral system than under a majoritarian system?
- **Question 2:** Is the electoral reform associated with a trade-off between the quantity of women and the quality of politicians?

The Effect of the Electoral Reform on the Election of Women

We take a DiD approach in order to identify within-country electoral system effects on the political career outcomes of women. The treated group is made up of the national level politicians who were exposed to the 2005 change in electoral rule from a mixed, largely majoritarian system to a proportional system.[23] The control group is made up of the subnational politicians who were not exposed to the change in electoral rule. Only 0.17% of politicians in our sample move from municipal politics to national politics, thus confirming that our treated group is not contaminated by the control group. The fact that subnational elections occur at different times to the national elections and the timeframe and preparation required to prepare a national-level political campaign makes it difficult for politicians to switch into the treatment group. For our main analyses we exclude the years 2012 and 2013 as the effect of the 2005 reform could be contaminated by a subnational reform implemented at the very end of 2012 (*Legge n.215*, see Timeline 2 dotted arrow).[24] We also exclude the years prior to the national election of 1994, as the national electoral system was reformed in 1993 and these years could contaminate our results (our results are robust to changing

[23]We only consider members of the House (*Camera*), as the electoral rules for the Senate (*Senato*) were slightly different to those of the House and we want to avoid any contamination of the results (both at the aggregate and individual level). Adding the Senate does not change the results (see Table 4.8.11).

[24]This reform introduced a candidate quota stipulating that no single gender could represent more than 2/3 of the candidates on a list and establishing a double preference so that voters can express two preferences rather than one as long as each preference is for a candidate of a different gender. This reform has been shown to have increased the number of female councillors significantly (Baltrunaite et al., 2017). Yet our results are robust to including 2013 and are available upon request.

the sample, see Table 4.8.11, and more information is provided about the 1993 reform in Section 4.5.4). This means that, for our main analyses, the pre-reform period refers to the years 1994-2005 (national elections: 1994, 1996, 2001) and the post-reform period refers to the years 2006-2011 (national elections: 2006, 2008).

In the equations that follow, l refers to the level of government that the individual politician (i) has been elected to (national, regional, provincial or municipal) and t refers to the time period of the election. We present both aggregate versions of the estimations where all variables are measured at the average level for the level of government and time period in question and individual versions where variables are measured at the person level.

In order to justify inference from the DiD model, the following assumptions are required: classical linear regression model assumptions and parallel trends. Parallel trends in this case mean that the subnational (control) and national (treated) groups must have been moving in parallel to one another in terms of female political representation ahead of the 2005 reform which, we argue, exogenously affected the number of women being elected to national office, but not to subnational offices. If these parallel trends hold, then the DiD estimator can be interpreted as the treatment effect on the treated. Thus, the difference in pre- and post-treatment differences equates to the effect of the 2005 reform on national level female representation. Parallel trends are shown in Figures 4.7.3 and 4.7.4.[25]

FIGURES 4.7.3 & 4.7.4 ABOUT HERE

We first estimate the following equation on aggregate data:

$$Y_{lt} = \alpha + \gamma TREAT_l + \lambda POST_t + \delta_{DiD}(TREAT_l \times POST_t) + \boldsymbol{X}'_{lt}\beta + e_{lt} \qquad (4.1)$$

Where Y_{lt} is the share of women in political level l and year t, $TREAT_l$ is a dummy variable equal to 1 if we consider women elected at the national level and to 0 for subnational levels, $POST_t$ is a dummy variable equal to 1 if the politician has been elected after 2005 and 0 for years before and the interaction term $TREAT_l \times POST_t$ indicates national observations for post-reform years. δ_{DiD} is the DiD estimate that captures the effect of the 2005 reform on the share of female politicians in national office. $\boldsymbol{X}'_{lt}$ is a vector of controls (a linear time trend, macro-regional controls, and regional magnitude) measured for each political level in each year. We also include district magnitude as a control.[26] Thus, α captures the effect for the non-treated group (subnational politicians) prior to the reform, $\alpha + \gamma$ captures the effect

[25] We also tested the parallel trends assumption by introducing leads for the years preceding the reform year to our DiD model, see Table 4.8.10. In addition, we tested that there were no discontinuities in any other trends around the date of the reform: there were not (Appendix, Section 4.A.3).

[26] Under the *Mattarellum* the proportional seat tier district magnitudes had ranged from a minimum of 2 (Basilicata, Umbria) to a maximum of 11 (Lombardia 2) in the House and from a minimum of 2 (Friuli-Venezia Giulia, Umbria, Marche, Abruzzo, Basilicata) to a maximum of 12 (Lombardia) in the Senate. We exclude Valle d'Aosta, Molise and Trentino-Alto Adige from the analyses, due to their autonomous status and different electoral rules. Whereas after the 2005 reform, in the 2013 election, for example, the census-based district magnitude ranged from a minimum of 6 (Basilicata) to a maximum of 45 (Lombardia 2) in the House, and from a minimum of 7 (Friuli-Venezia Giulia, Umbria, Abruzzo, Basilicata) to a maximum of 49 (Lombardia) in the Senate.

for the treated group (national politicians) prior to the reform, $\alpha + \lambda$ captures the effect for the non-treated group post-reform and $\alpha + \gamma + \lambda + \delta$ captures the effect for the treated group post-reform.

We also estimate a similar equation using individual level information:

$$Y_{ilt} = \alpha + \gamma TREAT_{il} + \lambda POST_{it} + \delta_{DiD}(TREAT_{il} \times POST_{it}) + \boldsymbol{X}_i'\beta_i + e_{ilt} \qquad (4.2)$$

Where Y_{ilt} is a dummy variable equal to 1 if the politician i elected at level l and year t is a woman and 0 if the politician is a man. $\boldsymbol{X}_i'$ is the same vector of controls and the other variables are the same as in Equation 1, but measured at the individual level for politician i.

Results are presented in Table 4.8.5. Columns 1-3 estimate data aggregated by year and political level in order to look at how the share of women elected to national office changes following the reform: Column 1 shows the basic specification with no controls, Column 2 includes a time trend and Column 3 includes the controls described in Table 4.8.1. The dependent variable here is the share of female politicians elected to national office. The control variables are all aggregated up to the national or subnational level. Columns 4-6, instead, show estimates using individual data on each politician: Column 4 shows the basic specification with no controls, Column 5 includes a time trend, and Column 6 includes the controls described in Table 4.8.1, but this time measured at the individual level. The dependent variable here is a binary variable indicating whether the politician in question is a man or a woman. The control variables are all measured at the individual level, apart from regional magnitude (pooled constituencies up to level) and overall number of candidates (national level). The message to be taken from Table 4.8.5 is that the 2005 reform changing the electoral rule from a majoritarian to a proportional system has a statistically significant, positive impact on women elected to national office.[27] The share of women being elected to subnational offices was following a positive trend ahead of the reform (Row 1) and the share of women elected to subnational offices prior to the reform was significantly higher than the share of women elected to national office (Row 2). The change in the electoral rule modified the national representation of women significantly (Row 3), almost entirely compensating for the pre-existing higher levels of female representation at the subnational levels ($Treatment + Post * Treatment$).[28] Robustness analyses are presented in Section 4.5.4.

TABLE 4.8.5 ABOUT HERE

We also explore the two-tiered feature[29] of the *Mattarellum* reform, which introduced a mixed-member system, whereby 75% of representatives were elected via a majoritarian system and 25% via a proportional system. In the majoritarian tier, members of parliament were elected in SMDs with simple plurality voting. In the proportional tier, representatives

[27] We exclude three regions (Valle d'Aosta, Molise, and Trentino-Alto Adige) from our analyses because they elected their parliamentarians with a different (majoritarian) system in the post-reform period.

[28] For example, in the case of Column 1 the mean difference in the share of women being elected to national office was -0.0584 + 0.0552 = -0.0032, as compared to the prior difference of -0.0584.

[29] See Weeks and Baldez (2015) for a study exploiting this tier feature of the Italian electoral system in these years comparing the quality of quota and non-quota female politicians.

were elected from closed party lists at the regional level (Bartolini and D'Alimonte, 1996; Bartolini et al., 2004). The main advantage of this feature is that we can see how parties and politicians react to electoral rules when they have an alternative available. Indeed, Figures 4.7.5 and 4.7.6 confirm that both *across electoral systems* over time and across tiers *within the same electoral system*, proportional rules are associated with more female *candidates*. Figure 4.7.5 shows that the share of candidates who are women reduces significantly during the years where a mostly majoritarian rule was in place (the elections of 1994, 1996, 2001). Figure 4.7.6 illustrates how within the same electoral system, the share of female candidates is markedly higher in the proportional tier as compared to the majoritarian. Even under the same electoral system, these differences in the numbers of female candidates coming forward translate into differences in the number of *elected* women, with an average of 24% of elected politicians being female in the PR tier as compared with 9% in the majoritarian tier (the difference is statistically significant at the 1% level).

FIGURES 4.7.5 & 4.7.6 ABOUT HERE

The higher share of women candidate in proportional than majoritarian systems is consistent with the different nature of the political race of the two electoral rules. We present evidence in the Appendix (Section 4.A.4) that female political candidates are more averse to personal exposure: they tend to prefer to align with the party when there is a conflict between their own opinion and the party position and they are inclined to withdraw from a political competition after a loss. Thus, we expect women to dislike majoritarian systems which are based on the 'winner-takes-all nature" of the process (Mattozzi and Merlo, 2015). Parties themselves are expected to rely on more exposure-ready candidates in such majoritarian systems.

The Trade-Off Between the Quantity of Women and the Quality of Politicians

We have shown that proportional electoral rules increase female representation. Are there risks associated with such a increase in terms of the quality of politicians being elected?

A frequently voiced fear - that has been convincingly disproved for 'quota women' (Baltrunaite et al., 2014; Weeks and Baldez, 2015; Besley et al., 2017) - is that when minorities gain greater political representation, through affirmative action or other institutional means, they will be less qualified than their majority-group counterparts, and thus the overall quality could decrease. However, the literature on quotas and affirmative action does not map neatly onto questions of electoral systems' impact upon the quality of politicians. This is because the changes brought about by an electoral reform are much more wide-reaching than a targeted policy intended to increase the representation of a specific group. Electoral reforms can change great swathes of mechanisms and incentives simultaneously, radically changing the rules of the game for political players and how they perceive their likelihood of succeeding in the political race. Findings regarding the quality-quantity trade-off - or lack thereof - from the literature on gender quotas, then, cannot be taken to apply in the same way to electoral reforms. Our

within-country research design allows us to explore precisely these kinds of contextual features that cross-country analyses were unable to analyse, including the quality-quantity trade-off and how it interacts with regional gender culture, a factor known to hinder female labour force participation and work outcomes (Fernandez, 2007; Campa et al., 2010). Furthermore, the Italian context helps to strengthen the generalisability of findings about the lack of a quality trade-off with increased female representation. This is because Italy can be seen as a 'least likely' case when it comes to gender equality - due to its mixed equality record (European Institute for Gender Equality, 2017) - compared to studies that are conducted in more uniformly gender progressive contexts such as Sweden ('most likely' cases). By showing that this quality trade-off does not exist even in more gender traditional contexts and when studying electoral reforms as opposed to quotas, we bolster the validity of the finding.

In our context the concern is particularly alarming because the shift from majoritarian to proportional system seems to come with a concentration of female candidates in safe seats. In Table 4.8.4, Panels A and B we show the share of women candidates in safe, competitive and no chance seats in the national elections with the majoritarian and proportional system respectively. To define a seat safe, competitive or no chance we follow the two different definitions described in Section 4.4 for the majoritarian and proportional system respectively. We point out that, as the definitions are different, Panel A and Panel B cannot be directly compared. Table 4.8.4 shows that, while in elections with the majoritarian system women candidates are almost equally split between the safe and competitive seats, in the proportional one women are more concentrated in safe seats. In the Appendix (Section 5) we show that being a woman significantly increases the probability to be placed in a safe seat in the proportional system, while this was not the case in the majoritarian system. Is this a risk for the quality of elected women and elected politicians?

We measure quality in three ways, using education and previous experience, in line with the literature (Jacobson, 1989; Shugart et al., 2005; Galasso and Nannicini, 2011): higher education and more experience proxy higher quality. We also use a measure of the share of politicians who are parachuted to the national level with no subnational experience whatsoever, as a proxy of low quality. As can be seen in Panel A of Table 4.8.6, there is no difference in the education level of elected politicians (male and female) before and after the refom, while the years of subnational experience increase (for male and female) and the share of male parachuted decrease after the reform. For women, there are slightly more parachuters following the reform (statistically significant at the 0.1 level). Overall, it is difficult to argue that following the 2005 reform the quality of politicians decreases. If anything, it seems to increase.

At all subnational levels of government for all the years available in our sample, female politicians are more educated than their male counterparts and the differences are statistically significant at the 0.01 level (see Figure 4.7.7). Interestingly there seems to be some kind of selection effect at the national level, whereby this difference disappears.

TABLE 4.8.6 & FIGURE 4.7.7 ABOUT HERE

In order to analyse this selection question at the national level more closely, we use detailed candidate data, which include information on the individual level of education, which are

available only for the 2013 election. Figure 4.7.8 shows that - unlike for male candidates - it seems that the best female candidates are not elected. Figure 4.7.8 shows the kernel distribution of the level of education of all male and female candidates (Panel A) and elected men, elected women, non-elected men and non-elected women (Panel B). Female candidates are more educated than male ones. However, non-elected women are the most educated of all the categories of politicians. Indeed, these unelected female individuals are more educated than their elected male counterparts. Whereas there is no difference in the quality of elected men and women or between male candidates and elected politicians, the best female candidates are left behind. Kolmogorov-Smirnov tests for equality of distribution functions for each of these education level distributions confirm that the differences are statistically significant. This evidence suggests that, while overall the election of women does not come at the expense of the quality of representatives, the proportional system is not able to select the best women. The quality of politicians would indeed benefit from a further increase of elected women.

FIGURE 4.7.8 ABOUT HERE

Finally, the 2013 data including information on candidates allow us to estimate the following equation, which tests whether one's likelihood of being elected is affected by one's gender, controlling for the kind of seat - safe or competitive or 'no chance', as described in Section 4.4 - that one is placed in.

$$Y^* = \beta_1 MALE + \beta_2 SEAT + \beta_3 (MALE \times SEAT) + \boldsymbol{X}'\beta_j + \epsilon \tag{4.3}$$

Where Y^* is the latent likelihood of being elected, $\beta_2 SEAT$ is the nature of the seat one has been assigned to (competitive/safe/'no chance' measured as a binary variable for each type of seat) and the interaction term $\beta_3(MALE \times SEAT)$ captures the effect that being a man as opposed to a woman has on your chances of being elected given the kind of seat you have been allocated.

Table 4.8.7 shows results of this estimate. We see that, if anything, female politicians are more likely to be elected than their male counterparts in safe and competitive seats. In 'no chance' seats they are less likely to be elected than men, but this may be less indicative of female politicians' overall ability to convince voters as the 'no chance' seats are relatively few and not where parties are concentrating their election efforts. Column 4 shows that, when looking only at seats that are fiercely competitive, one's gender does not have an impact on the likelihood of being elected. Although limited to the 2013 elections, these results raise doubts regarding the presence of voters' bias against women.

TABLE 4.8.7 ABOUT HERE

The Role of Gender Culture

Our setting and unique dataset allow us to explore whether culture mediates the effect of electoral rules on female representation. Italy features highly varied gender outcomes within the same country and the same institutional setting: the most recent ISTAT figures for female employment levels across the country run as follows: North: 58.2%, Centre: 54.4%, South: 31.3% (ISTAT, 2017). The divergence between the North and South is, then, extreme: almost double the share of women in the North work as compared to the South. Indeed, studies have shown that this divergence is associated with a different gender culture across regions of the country, being regions of the South dominated by traditional gender roles (Campa et al., 2010). Despite the institutional setting remaining the same across the country, one could argue that this heterogeneity in cultural norms may drive some of our result. In order to address this, we ran our main analyses in each of the low and high gender traditional settings. We undertook factor analyses of responses to questions about gender norms from the European Value Survey in order to create measures of the regional gender norms in Italy (see Appendix, Section 4.A.6 for more details). We find support for the generally held notion that the North of the country is more gender progressive and the South more gender traditional.

To our knowledge, there are no studies examining the interaction between gender culture, electoral reforms and female representation. As such, we aim to provide some exploratory evidence to better inform our understanding of *how* electoral reforms affect female representation differentially. In terms of expectations, the direction of the effect could go both ways. On the one hand, one may expect gender progressive regions to react more positively to an electoral reform that moves towards a proportional system in that they have more women 'at the sidelines' ready to run for office when the opportunity presents itself due to a more inclusive political culture. Moreover, gender traditionalist regions may have such strong beliefs that more educated women will not run for office meaning that the effect would be driven only by gender progressive regions. On the other hand, one may expect gender traditionalist regions to react more positively as their initial starting point is lower due to voters' traditionalist ideological beliefs (Paxton and Kunovich, 2003). Once institutional features incentivise the candidacies of women, the increase in female politicians is sharp, as traditionalist preferences are no longer able to hold sway quite so strongly. We have no prior, then, regarding the expected direction of the effect.

We replicate Column 6 of Table 4.8.5, splitting the regions into high (more gender traditionalist) and low (more gender progressive) gender traditionalist regions. Table 4.8.8 shows that the effect of the reform is stronger in the *high* gender traditionalist districts. We then go further, to show that in these high gender traditionalist areas of the countries, the proportional system is not able to select the best women. Figure 4.7.9 shows the kernel distribution of the level of education of elected men, elected women, non-elected men and non-elected women in the North and South of the country. While in the North (Figure 4.7.9) the women elected from the pool of candidates are of the same quality as the non-elected women, in the South (Figure 4.7.9) a divergence occurs whereby - despite these *unelected* women being more educated than their *elected* male counterparts - the best quality female politicians are not elected. This result is confirmed by a Kolmogorov-Smirnov test for equality

of distribution functions for each of these education level distributions.

TABLE 4.8.8 & FIGURE 4.7.9 ABOUT HERE

Robustness Tests

In this section we perform several robustness tests.

In Table 4.8.9, we present equivalent results to equation 2 (Table 4.8.5, Column 6), but broken down by party affiliation to test whether the effect of the reform is being driven by a specific group of parties. As can be seen in table 9, results are not driven by a specific party.

TABLE 4.8.9 ABOUT HERE

In Table 4.8.11, we test the robustness of our findings in various ways. In Columns 1-3, we change the time span used to define the sample for our main estimations: changing it from 1994 to 1993, 1995, 2000.[30] In Column 4, we eliminate politicians with very high political longevity[31] in terms of subnational experience as there are some individuals who have very long subnational careers (over 15 years) and we want to make sure they are not driving any of the results. In Column 5, we bring senators into the analysis. In Columns 6-8, we change the control group from the usual pooling of all three levels (municipal, provincial and regional) to each of the separate groups. Finally, in Column 9 we include individual controls for each of Italy's 20 regions as opposed to the macro regions (north, centre, south) used in the main models. Our findings are robust to all these tests.

TABLE 4.8.11 ABOUT HERE

In Table 4.8.10, we estimate the same regression equations as in the main results, but we use lags for 5 years prior to the reform and leads for 3 years following the reform (we use this number of lags and leads to ensure that we include at least 1 national level election each side of the reform) to replicate placebo reform years. As can be seen in Table 4.8.10, none of the lag years have an effect on female representation, which reassures us that there are no pretreatment effects contaminating the effect of the reform itself. For the lead years, only Lead 3 (equivalent to the 2008 national election) is statistically significant at the 5% level with a coefficient of 0.02, so weaker than the reform year itself. This testifies to the lasting effect of the 2005 reform, which is carried over - though more weakly - into the 2008 national election.

[30]The cut-off date is key as we don't want to include trends from decades before the reform as it would contaminate the estimation due to previous electoral reforms, but equally we don't want to lose too much statistical power. We cannot use data from before 1993 as there was another major national-level electoral reform that could confound our results. Equally, we cannot use data only very close to the 2005 reform date as we would lose the essential time trends we need for the estimation.

[31]Outliers are here defined as those individuals with more than 15 years of subnational experience, as only the top 5% the distribution have more than 15 years of subnational experience.

TABLE 4.8.10 ABOUT HERE

Finally, we consider the effects of a previous 1993 reform from a (see 'Mattarellum, 1993' in Timeline 1) full proportion system into the mixed (75% majoritarian) system. We prefer not to consider this reform in our main analysis because this national reform comes together with a reform at the municipal level which introduces gender quotas in candidate lists which increase the share of elected women (see Baltrunaite et al. (2017)). Gender quotas in municipal elections can confound the effect of the national reform which we want to estimate. In fact, we find that the 1993 national reform has an adverse effect on female representation, with a negative coefficient for the DiD estimator of a much larger magnitude that the one obtained for the 2005 reform.

TABLE 4.8.12 ABOUT HERE

Discussion and Conclusion

In a within-country context, we find causal evidence that proportional electoral rules promote women's representation without a reduction of quality. Our study of the Italian 2005 reform, which changed the national electoral system from (mainly) majoritarian to proportional, shows that the reform had a stronger impact in more gender traditionalist regions, indicating that cultural features can have a significant mediating effect on electoral reforms. However, even if the number of women increased more in traditional regions, for 2013 elections, in these regions we also found the greater discrepancy between female candidates and elected politicians: the best female candidates are not elected. Given that we do not find evidence of the presence of voter bias, party bias, which is expected to be stronger in more traditional regions, seems the most likely source of the discrepancy between the quality of elected and non-elected women.

This conclusion is not surprising. There is much evidence to suggest that Italian political parties do not necessarily see women as competitive, capable political agents. Many prominent contemporary political figures in Italy have expressed less than flattering opinions of their female colleagues, despite female politicians in Italy - as in many other countries - having been shown to be as qualified (if not more so) than their male counterparts.[32]

Overall our results indicate that proportional rules can be effective in attracting more women to politics and that this does not come at a price in terms of quality, but they also

[32]To cite just some examples, in the 2008 election two of the main parties contending, the *Partito Democratico* (hereafter, PD) and *Popolo della Libertà* (hereafter, PdL), accused one another of including *"sciampiste"* (PdL directed at the PD's Walter Veltroni) and *"letteronze"* (PD directed at PdL) in their lists (roughly translated as "shampooers" - in the derogatory sense of a very junior hairdresser - and "showgirls", respectively. Even more recently, in the 2013 election the Secretary of the PD, Pierluigi Bersani commented "To Monti I ask: how many women will you elect? To Berlusconi, instead, I should ask 'how many dolls will you bring?'" referring to Berlusconi's alleged 'window-dressing' approach to bringing female politicians into parliament. Beppe Grillo made an even more explicit statement later in 2013, calling the President of the Chamber of Deputies, Laura Boldrini, "a furnishing object of power" ("*oggetto di arredamento del potere*" (Il Corriere della Sera, 2013)).

highlight the mediating effect of cultural norms and the need for vigilance when it comes to contexts with well established traditional gender roles and stereotypes. This result would be particularly informative for countries with unequal gender norms, which are consolidating their democracies at present and which may consider electoral reforms in the coming years or decades.

Figures and Tables

Figures

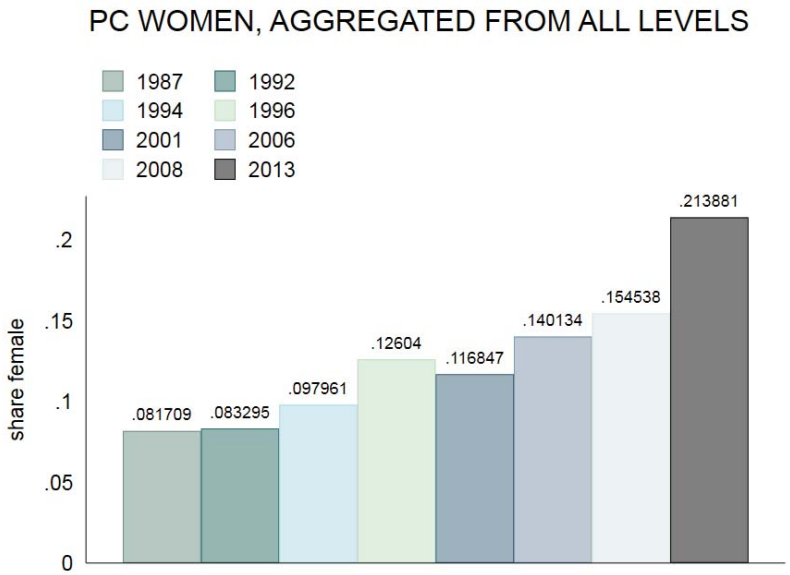


Figure 4.7.1

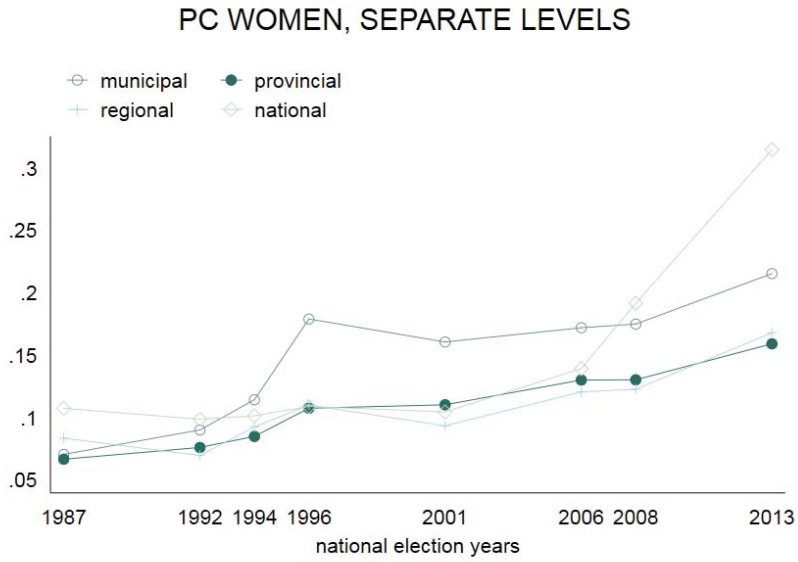


Figure 4.7.2

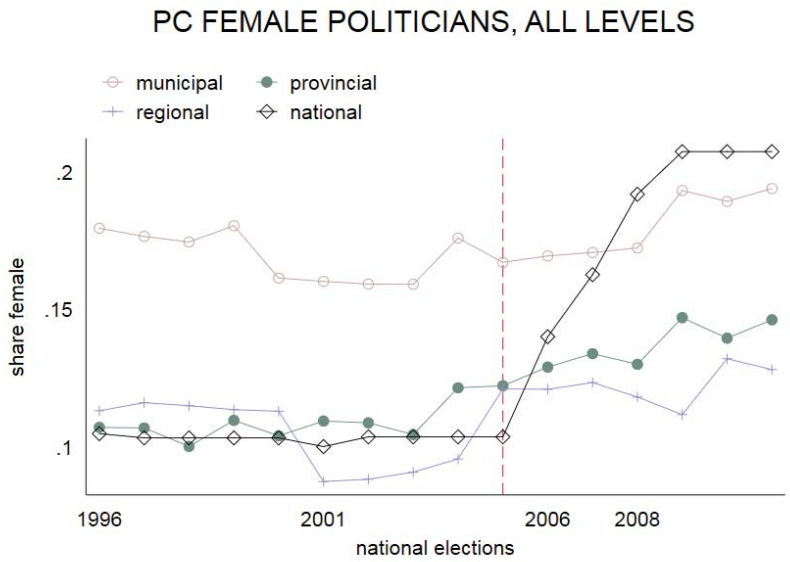


Figure 4.7.3

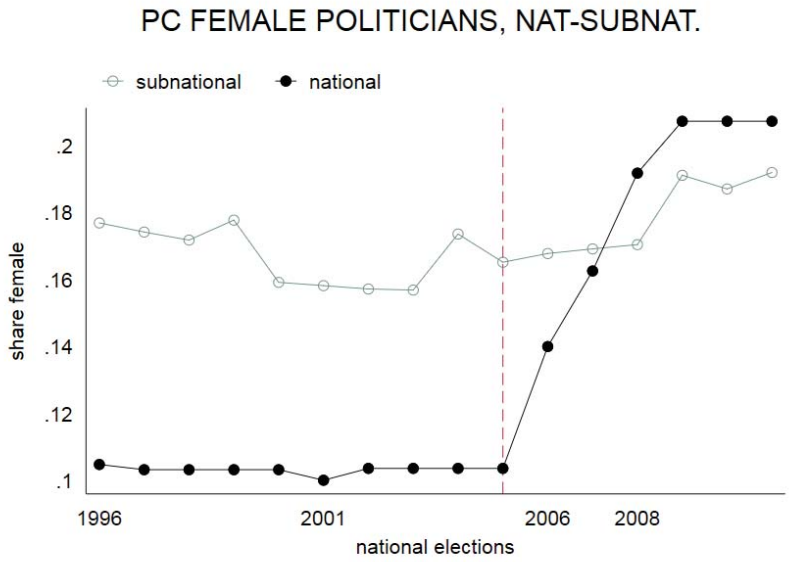


Figure 4.7.4

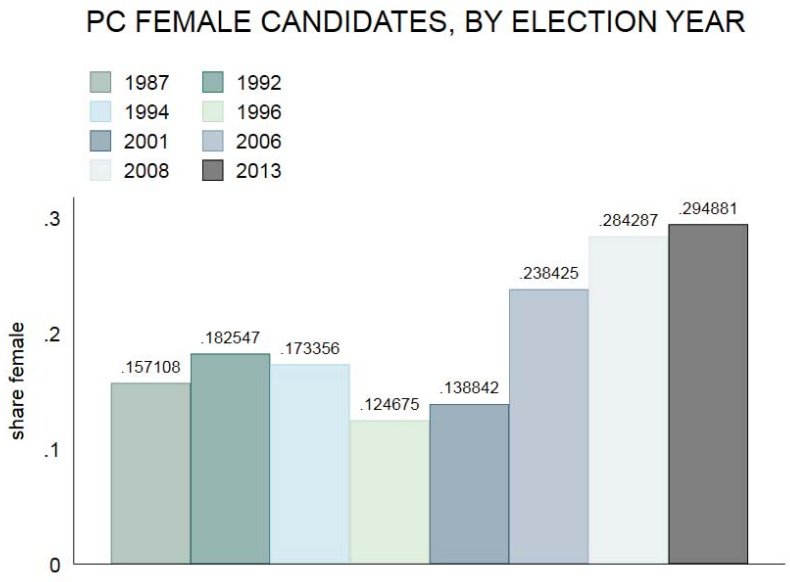


Figure 4.7.5
(National elections only)

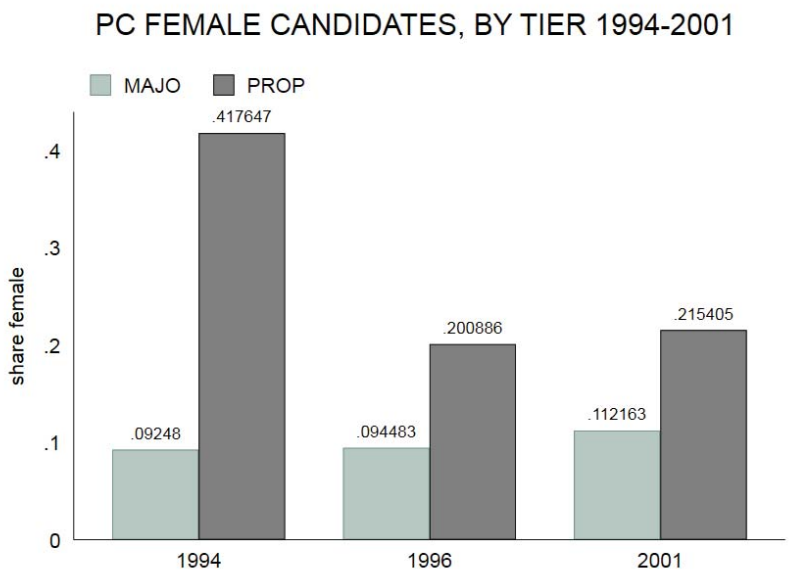


Figure 4.7.6
(National elections only)

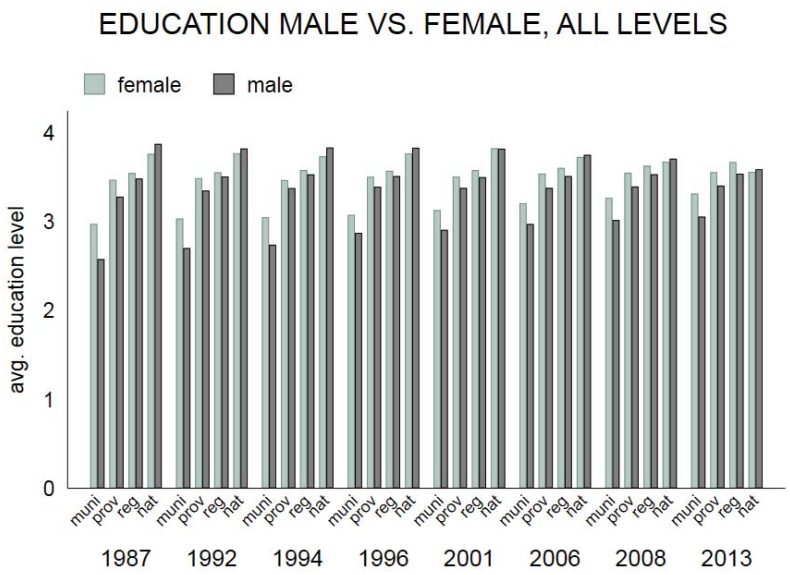


Figure 4.7.7

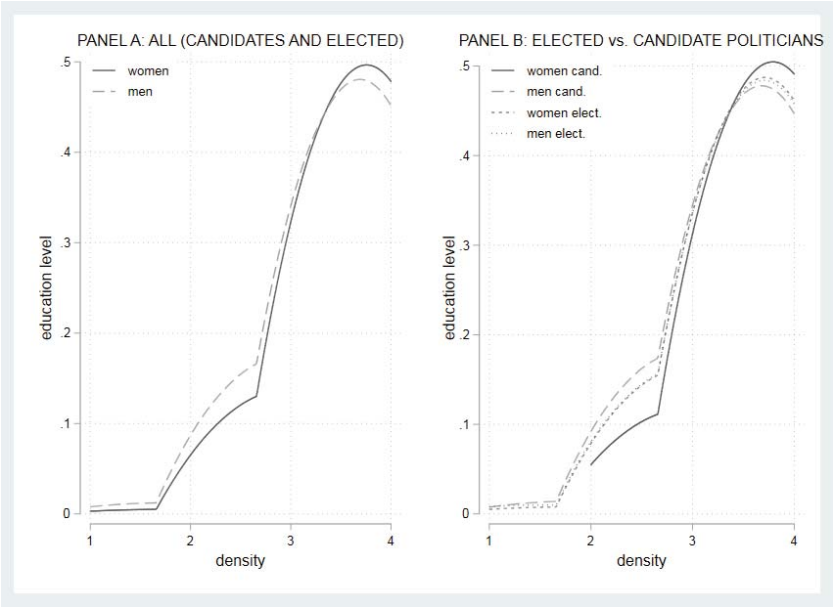


Figure 4.7.8*

*These kernel density estimates are for data for the 2013 national elections, where we have data on both candidates and politicians.

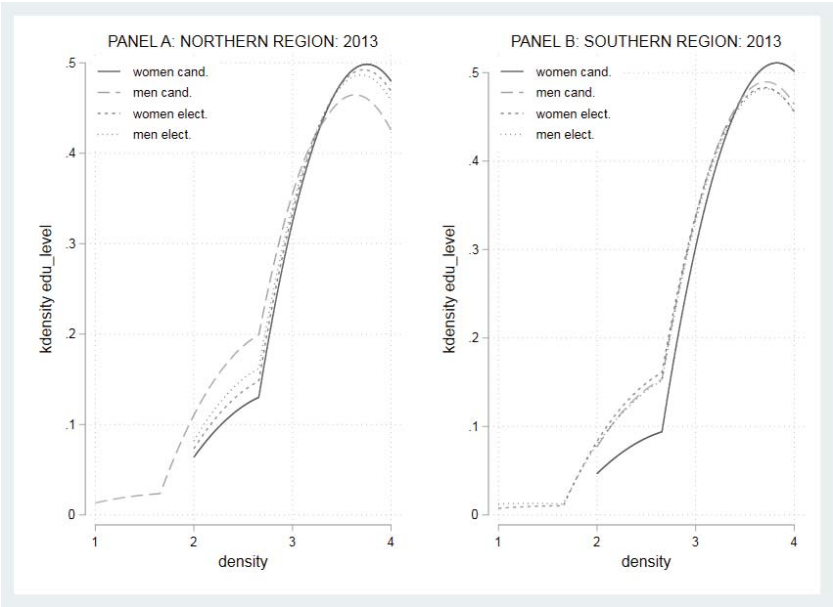


Figure 4.7.9*

*These kernel density estimates are for data for the 2013 national elections, where we have data on both candidates and politicians.

Tables

Table 4.8.1. Summary Statistics: Panel Data, All Levels

	Ind. ID	Male	Treated	Post	Year	Regions	Reg. Magn.
Mean	313669.7	.8521951	.0061248	.3188665	1999.82	1.780413	50.17872
Median	313525	1	0	0	2000	1	48
Min.	3	0	0	0	1987	1	3
Max.	630163	1	1	1	2013	4	101
N	4048998						

Note: Baseline variables for all levels of government. Variables: year, regional magnitude, and macro regions of Italy (1=North, 2=Centre, 3=South, 4=Other i.e. overseas district).

Table 4.8.2. Summary Statistics: Controls, National Only, 1994-2001

	Male	Age	Edu.	Subnat. Exp.	Incumbent	Total Comp.	Total Safe
Mean	.9141762	48.24828	15.97625	2.681226	.1984674	164.4475	102.4107
Median	1	48	17	0	0	236	154
Min.	0	27	5	0	0	0	0
Max.	1	84	20	19	1	260	155
N	1305						

Note: Pre-reform baseline variables for national-level politicians only. Variables: gender, age in years, education level (in years of schooling: 5, 8, 13, 17 or 20 - these are later standardised to correspond to 1: primary education, 2: middle school education, 3: high school education, 4: degree-level or equivalent education, 5: PhD or equivalent education), years of sub-national political experience, incumbent status, total number of safe/competitive seats. No district magnitude here due to single member districts.

Table 4.8.3. Summary Statistics: National Only, 2013

	Male	Age	Edu.	Subnat. Exp.	Incumbent	Dist. Magn.	Total Comp.	Total Safe
Mean	.6965443	48.946	5.714286	1.643629	.3455724	29.27763	508	849
Median	1	49	6	0	0	28	508	849
Min.	0	25	0	0	0	3	508	849
Max.	1	89	9	21	1	45	508	849
N	926							

Note: Post-reform variables for national-level politicians only. Variables: gender, age in years, education level (0, 3/9 categorisation from no schooling to degree level - these are later standardised to correspond to 1: primary education, 2: middle school education, 3: high school education, 4: degree-level or equivalent education, 5: PhD or equivalent education), sub-national experience in years, incumbent status, district magnitude, total number of safe/competitive seats.

Table 4.8.4. Concentration of Types of Seat, Pre- and Post-Reform

Panel A: All Politicians				
Seat-Type	Pre	Post	Total	
Safe	309	681	36%	74%
Comp.	496	184	57%	20%
No chance	57	62	7%	6%
Total	862	927	100%	

Panel B: Pre-Reform: Female Politicians		
Seat-Type	Count	Share
Safe	**35/79	44%
Comp.	*40/79	51%
No chance	4/79	5%

*** p<0.01, ** p<0.05, * p<0.1

Panel C: Post-Reform: Female Politicians		
Seat-Type	Count	Share
Safe	**222/281	79%
Comp.	*41/281	15%
No chance	18/281	6%

*** p<0.01, ** p<0.05, * p<0.1

Table 4.8.5. Share of Women Elected and Female Election Probability

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Post	0.0161**	-0.0121	-0.00956	0.0163***	-0.00654***	-0.00577***
	(0.00705)	(0.0121)	(0.0110)	(0.000863)	(0.00107)	(0.00107)
Treated	-0.0584***	-0.0584***	-0.0355***	-0.0592***	-0.0591***	-0.0543***
	(0.00669)	(0.00726)	(0.00782)	(0.00753)	(0.00753)	(0.00799)
Post*Treated	0.0552***	0.0552***	0.0563***	0.0545***	0.0546***	0.0578***
	(0.0170)	(0.0150)	(0.0115)	(0.00971)	(0.00970)	(0.0104)
Constant	0.161***	-6.119**	-4.617**	0.162***	-4.860***	-4.689***
	(0.00549)	(2.760)	(2.178)	(0.000698)	(0.207)	(0.207)
Observations	36	36	108	2,731,303	2,731,303	2,729,675
R-squared	0.694	0.748	0.637	0.001	0.001	0.007
Time Trend	NO	YES	YES	NO	YES	YES
Controls	NO	NO	YES	NO	NO	YES

Note: DiD coefficient from OLS regressions of the likelihood of seeing a woman elected to national office. The sample covers years 1994-2011. Dependent variable (DV), Columns 1-3: continuous (share of female politicians), aggregate data. DV, Columns 4-6: binary (politician: female (1)/male (0)), individual data. Standard errors are clustered at the national-sub-national levels for Columns 1-3 and at the individual level for Columns 4-6 and are reported in parenthesis. Columns 1 and 4: basic DiD model with no controls. Column 2: aggregate DiD model with a linear time trend. Column 3: aggregate model with controls (described in Table 4.8.1). Column 5: individual DiD regression with a linear time trend included. Column 6: individual DiD regression with controls (described in Table 4.8.1). The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.6. Quality of Politicians, Pre- and Post-Reform

Panel A: Pre/Post Comparisons			
Measure of Quality	*Pre vs. Post: Overall*	*Pre vs. Post: Men*	*Pre vs. Post: Women*
Education Level	No Difference	No Difference	No Difference
Years of Sub-Nat. Exp.	+3.13***	+3.26***	+2.86***
Parachuters	-.08***	-.11***	+.04*

Panel B: Absolute Measures						
Measure of Quality	*Pre vs. Post: Overall*		*Pre vs. Post: Men*		*Pre vs. Post: Women*	
Education Level	3.831	3.835	3.832	3.831	3.817	3.853
Years of Sub-Nat. Exp.	6.078	9.210	6.145	9.406	5.328	8.195
Parachuters	0.353	0.271	0.356	0.248	0.331	0.375

Note: Education level is a categorical variable ranging from 1 (primary education), to 5 (PhD or equivalent). Subnational experience is measured in years and ranges from 0-25. A parachuter politician is one who arrives at the national level with 0 years of subnational experience, captured by a binary variable so that the figures shown represent the share of parachuters over the total of national politicians for the pre- and post-reform periods. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.7. Likelihood of Election, 2013

VARIABLES	(1) Safe	(2) Competitive	(3) No Chance	(4) Tight Races
Male	0.160	0.190**	-0.291***	-0.243
	(0.167)	(0.0894)	(0.105)	(0.212)
Safe	2.413***			
	(0.212)			
Safe*Male	-0.441*			
	(0.239)			
Comp.		0.0205		
		(0.200)		
Comp*Male		-0.458**		
		(0.229)		
No Chance			-2.894***	
			(0.315)	
No Chance*Male			0.725**	
			(0.362)	
Constant	-1.294***	-0.385**	0.656**	0.935
	(0.249)	(0.191)	(0.268)	(0.942)
Observations	1,058	1,058	1,058	249
Pseudo R2	0.384	0.0161	0.345	0.0257
Controls	YES	YES	YES	YES

Note: Probit regressions of the likelihood of seeing a candidate elected to national office in the 2013 election. DV: binary indicating if a candidate was elected (1) or not (0). The seat classifications define a seat as safe (1) or not (0), competitive (1) or not (0) and 'no chance' (1) or not (0). Columns 1-3: likelihood of a candidate being elected given his/her gender and other individual characteristics and his/her seat position. Column 4: likelihood of being elected in a sample reduced only to tight races. Controls described in Table 4.8.3. Robust standard errors clustered on the district are reported in parentheses. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.8. Low vs. High Gender Traditionalism

	(1)	(2)
VARIABLES	Low	High
Post	0.00165	-0.0181***
	(0.00128)	(0.00214)
Treated	-0.0437***	-0.0457***
	(0.00954)	(0.0146)
Post*Treated	0.0219*	0.0636***
	(0.0112)	(0.0175)
Constant	-1.450***	-11.69***
	(0.321)	(0.366)
Observations	1,413,271	1,110,274
R-squared	0.007	0.013
Controls	YES	YES

Note: DiD coefficient from OLS regressions the likelihood of seeing a woman elected to national office. Equivalent of Column 6 of Table 4.8.5. The sample covers years 1994-2013. DV: binary, politician is female (1), male (0). Individual and additional controls (described in Table 4.8.1) are included, as well as regional level controls overall gender traditionalism. Column 1: regions of below-average gender traditionalism. Column 2: regions with above-average gender traditionalism. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.9. Party Analysis

VARIABLES	(1) Left	(2) CL	(3) Centre	(4) CR	(5) Right
Post	-0.00718***	-0.0226***	0.00925***	0.000524	0.0134***
	(0.00210)	(0.00453)	(0.00341)	(0.00251)	(0.00407)
Treated	-0.0384**	-0.00106	-0.0602	-0.0652***	-0.0795***
	(0.0194)	(0.0553)	(0.0444)	(0.0108)	(0.0181)
Post*Treated	0.0612**	0.0852*	0.0472	0.0306**	0.0786***
	(0.0255)	(0.0495)	(0.0617)	(0.0150)	(0.0276)
Constant	-2.742***	-10.94***	7.907***	1.003**	3.033***
	(0.406)	(0.896)	(0.723)	(0.464)	(0.922)
Observations	693,439	104,346	258,909	341,016	145,397
R-squared	0.010	0.018	0.009	0.004	0.008

Note: DV: binary (politician: female (1) or male (0)). OLS. Baseline regressions with controls. Equivalent to Column 6 of Table 4.8.5 with controls (described in Table 4.8.1), plus a linear time trend. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.10. Lags and Leads, Placebo Test

VARIABLES	(1)
Lag 5*Treated	0.00258
	(0.00387)
Lag 4*Treated	-0.00946
	(0.00977)
Lag 3*treated	0.00564
	(0.0100)
Lag 2*Treated	0.00624
	(0.0100)
Lag 1*Treated	-0.00670
	(0.0100)
Lead 1*Treated	-0.0143
	(0.0121)
Lead 2*Treated	-0.00432
	(0.0109)
Lead 3*Treated	0.0237**
	(0.00933)
Constant	-14.01***
	(0.283)
Observations	2,729,675
R-squared	0.009
Time Trend	YES
Controls	YES

Note: DiD coefficient from OLS regressions of the likelihood of seeing a woman elected to national office. Equivalent to Column 6 of Table 4.8.5, with controls (described in Table 4.8.1), plus a linear time trend. DV: binary (politician: female (1) or male (0)). Here lags for 5 years prior to the reform and leads for 3 years after the reform are used as 'fake' reform years. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.11. Robustness Checks

VARIABLES	(1) 1993 Span	(2) 1995 Span	(3) 2000 Span	(4) Outliers	(5) Senators	(6) Muni. CG	(7) Prov. CG	(8) Reg. CG	(9) Reg. Cntrls
Post	-0.0166***	-7.71e-05	-0.0122***	-0.00114	-0.00538***	-0.00632***	0.00974*	0.0103	-0.00563***
	(0.00107)	(0.00104)	(0.00106)	(0.00113)	(0.00107)	(0.00111)	(0.00527)	(0.00943)	(0.00107)
Treated	-0.0513***	-0.0564***	-0.0537***	-0.0555***	-0.0495***				-0.0525***
	(0.00757)	(0.00823)	(0.00883)	(0.00802)	(0.00808)				(0.00796)
Post*Treated	0.0542***	0.0592***	0.0574***	0.0505***	0.0521***				0.0578***
	(0.0109)	(0.0110)	(0.0104)	(0.0107)	(0.0104)				(0.0104)
Muni. CG						-0.0563***			
						(0.00796)			
Post*Muni						0.0581***			
						(0.0104)			
Prov. CG							-0.00156		
							(0.00859)		
Post*Prov							0.0429***		
							(0.0114)		
Reg. CG								-0.00464	
								(0.0107)	
Post*Reg								0.0559***	
								(0.0136)	
Constant	-8.033***	-3.398***	-9.696***	-6.078***	-4.567***	-4.705***	-4.583***	-1.599	-4.688***
	(0.178)	(0.204)	(0.308)	(0.216)	(0.206)	(0.212)	(0.941)	(1.409)	(0.214)
Observations	3,149,205	2,837,602	2,031,520	2,605,634	2,731,609	2,629,192	94,727	36,188	2,729,675
R-squared	0.010	0.009	0.011	0.010	0.008	0.008	0.019	0.016	0.013
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: DiD coefficient from OLS regressions of the likelihood of seeing a woman elected to national office. DV: binary male (0) or female (1). The sample, as in the main regressions, covers 1987-2011 except where we test robustness by changing the span of years. CG stands for control group. Columns 1-3: change the time span surrounding the reform year for the main estimation, respectively to 1993, 1995 and 2000. Column 4: eliminates all politicians with more than 15 years of sub-national experience. Columns 6-8: replace the usual pooled (muni-prov-reg) control group to a control group made up only of each group separately. Column 9: includes individual controls for each of the 20 regions of Italy as opposed to the macro regions used in the main models. The models are estimated on individual data with controls (described in Table 4.8.1). The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 4.8.12. 1993 Reform

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Post 93	0.0756***	0.0515***	0.0486***	0.0743***	0.0280***	0.0287***
	(0.0101)	(0.0182)	(0.0486)	(0.000740)	(0.000810)	(0.000810)
Treated	0.0319***	0.0319***	0.0216**	0.0294***	0.0291***	0.0326***
	(0.00590)	(0.00692)	(0.00849)	(0.01000)	(0.0100)	(0.00977)
Post 93*Treated	-0.0857***	-0.0857***	-0.0809***	-0.0836***	-0.0836***	-0.0842***
	(0.0122)	(0.0117)	(0.0097)	(0.0108)	(0.0109)	(0.0109)
Constant	0.0789***	-6.297*	-5.407**	0.0798***	-12.63***	-12.75***
	(0.00406)	(3.312)	(2.379)	(0.000587)	(0.241)	(0.241)
Observations	30	30	90	2,300,383	2,300,383	2,298,952
R-squared	0.725	0.774	0.701	0.012	0.014	0.019
Time Trend	NO	YES	YES	NO	YES	YES
Controls	NO	NO	YES	NO	NO	YES

Note: DiD coefficient from OLS regressions of the likelihood of seeing a woman elected to national office. The sample covers years 1987-2001. DV, Columns 1-3: continuous (share of female politicians), aggregate data. Dependent variable, Columns 4-6: binary (politician: female (1)/male (0)), individual data. Standard errors are clustered at the national-sub-national levels for Columns 1-3 and at the individual level for Columns 4-6 and are reported in parenthesis. Columns 1 and 4: basic DiD model with no controls. Column 2: aggregate DiD model with a linear time trend. Column 3: aggregate model with controls (as described in Table 4.8.1). Column 5: individual DiD regression with a linear time trend included. Column 6: individual DiD regression with controls (described in Table 4.8.1).

Appendix

Appendix

1. Additional Information on Subnational Levels of Government

In terms of the functioning of these administrative levels, there are different areas of competence that dictate which level administers which services. The national government has exclusive competence over certain policy areas, such as foreign policy or competition. Indeed, unless it is expressly stated that the State has a given competence it is automatically the regions' responsibility.[33] For example, the regions are responsible for the programming and organisation of health services, for providing educational facilities and for infrastructure on their territories. These macro areas are then delegated further down the administrative structure with the provinces, for example, being responsible for urban development, public transport and the management of school buildings in their jurisdictions. Municipalities, in turn, are responsible for an array of services from the registry of births and deaths, to the provision of local public services such as water supply, waste management and municipal police, to the implementation of housing and welfare policies.

In terms of organisation, at each of the levels a *presidente* (president, regions and provinces) or a *sindaco* (mayor, municipalities) is elected. This figure then heads a *consiglio* (legislative body) and a *giunta* (executive body). The former body is made up of elected councillors who manage the political and bureaucratic activities of the government in question. The latter body is composed of *assessori* (councillors) chosen by the figurehead to take charge of a specific kind of activity. For example at the regional level, the *Assessore all'Economia, Crescita e Semplificazione* (Councillor for the Economy, Growth and Simplification) manages the region's balance sheets and tax system, its financial resources to encourage growth, the streamlining of its bureaucracy and digitalisation. This brings us to the electoral rules determining how such figures are elected.

Referring back to Timeline 2, we would like to note that in 1999, an amendment was made to Article 122 of the Constitution that allowed the regions to choose their *form* of government, even if central government laws determined the fundamental principles of the electoral law (Bologna et al., 2003). This came before the reform we are looking at and did

[33]That being said, until 2015 when amendment was made to Art. 117 of the Constitution that clearly separated the responsibilities of the national and regional governments, the distinctions between what was of national or regional competence were not always hard and fast.

not involve a uniform, decisive change across all regions in electoral rules, rather a gradual piecemeal evolution.[34] The *Tatarellum* continued to govern any regional elections where the regional law had not been changed and, as mentioned before, was maintained even in some cases where the regional law was changed. The dash-dotted 2014 arrow refers to a major reform of the provinces and the structure of municipalities (Law 56/2014 or *Legge Delrio*), with the birth of *città metropolitane*, for example. However, this occurred after the period that we are analysing. Thus, the changes indicated by our dash-dotted arrows do not affect our estimates.[35]

2. Summary of Data Sources

TABLE 4.B.1 ABOUT HERE

3. Checking for other Discontinuities

Here we check that there are no discontinuities around the 2005 reform date apart from that we identify and are interested in: the share of women being elected to national office. As can be seen in Figures 4.B.1-4.B.3, all the other characteristics of politicians we are able to test for do not display discontinuities around the reform date.

FIGURES 4.B.1, 4.B.2 & 4.B.3 ABOUT HERE

4. Political Candidates

We construct two measures which capture the different attitudes of male and female political candidates towards personal exposure. We use the Comparative Candidate Survey (hereafter, CCS), Module 1 Data (FORS, 2016) which covers candidates running for national parliamentary elections in different countries using a common core questionnaire to allow for cross-country comparison. The data include surveys of candidates as well as relevant context information concerning the constituency of the candidate and the political system at large. The core CCS candidate questionnaire focuses on the relationships between the candidate, the party and the voters. Issues such as campaigning, recruitment, career patterns, ideology, democracy and representation are included in the questionnaire. CCS is conducted in modules

[34]Modifications to the regional laws took place slowly and in a highly varied fashion - some kept the 1995 *Legge Tatarella* almost entirely in tact, whereas others modified it significantly. The first regional elections held under new regional electoral rules were in Friuli-Venezia Giulia in 2002 (following a modification of the regional law in 2001) and changes are still occurring today. Regional law modifications were gradually made over the period 2001-today by the following regions: Friuli-Venezia Giulia (2001), Toscana (2004), Sicilia (2005), Calabria (2005), Campania (2009), Lombardia (2012), Veneto (2012), Abruzzo (2013), Emilia Romagna (2014), Liguria (2015), Marche (2015) and Umbria (2015).

[35]We also run all of our regressions on control groups made up of each of the different levels separately and our findings are robust. See Table 4.8.11, Robustness Tests.

that are in the field about 5 years. The surveys for Module 1 of the CCS were conducted between 2005-2013 and cover 35 elections.

Measure 1 is created on the basis of the question "A MP in a conflict between own opinion and the party position should follow: 1. His/Her own opinion; 2. The party's position?". So, a higher value response indicates greater amenability to following the party's position when in a position of conflict. This measure is intended to capture the extent to which candidates are willing to sacrifice their own beliefs in order to avoid conflict with the party, a form of individual political exposure. As can be seen in the table above, female candidates are more likely than their male counterparts to toe the party line even when they disagree with it.

Measure 2 is created on the basis of a series of questions regarding how often the candidate re-presents his/her candidature after a failure in an election: "Stood as a candidate in year of most recent [second most recent etc.] national election". A higher value indicates more resilience to losing elections, in the sense of trying again more frequently after a loss. This measure is intended to capture how willing a candidate is to try again if he/she loses an electoral race, a form of personal self-confidence. As can be seen in the table above, female candidates are less likely than their male counterparts to re-run in an electoral race after they lose.

TABLE 4.B.2 AROUND HERE

5. Differential Seat Placement Across Electoral Systems

In order to evaluate if men and women are placed in safe, competitive and no chance seats differentially under different electoral systems, we estimate the following probit specification of a binary response model:

$$Y^* = \beta_1 MALE + \boldsymbol{X}'_j \beta_j + \epsilon \tag{4.4}$$

$$Y_i = \begin{cases} 1 & \text{if } Y_i^* > \tau \\ 0 & \text{if } Y_i^* \leq \tau \end{cases}$$

Where Y^* is the latent likelihood of being placed in a competitive seat, τ is the threshold over which the probit link function,[36] which created the continuous, real-valued Y^*, predicts a positive value of Y_i. $\beta_1 MALE$ is our independent variable of interest the gender of the politician, $\boldsymbol{X}'_j$ is a vector of controls for politician j (education level, party affiliation, subnational political experience and district magnitude) and ϵ is an error term.

[36] $Y = \Phi(X\beta + \epsilon)$, $\Phi^-1(Y) + X\beta + \Phi$, $Y* = X\beta + \epsilon$, so the link function is: $F(Y) = \Phi^-1(Y)$.

Tables 4.B.3, 4.B.4, 4.B.5 and 4.B.6 show our results for the allocation of safe and competitive seats across gender both pre- and post-reform. Results are obtained using a binary response model (with a binary measure categorising a seat as competitive or not as the dependent variable) estimated with maximum likelihood. Prior to the 2005 reform (Tables 4.B.3 and 4.B.4), whether or not one is a woman does not seem to matter for one's placement in a safe or competitive seat (Row 1). Indeed, other characteristics such as one's education level or position as a loyalist matter for the kind of seat one is allocated: more educated candidates belong to competitive seats and more loyalists to safe seats. Whereas following the 2005 reform, the fact that one is a woman seems to be the most salient factor in the kind of seat being allocated (Tables 4.B.5 and 4.B.6, Row 1), apart from the case where education is included (Column 3). This is probably due to the fact that on the one hand women are allocated to safe seats, while on the other women are more educated than men and more educated candidates are less likely to stay in safe seats.

TABLES 4.B.3, 4.B.4, 4.B.5 & 4.B.6 ABOUT HERE

In all these specifications we control for the individual and electoral system features thought to influence one's likelihood of being elected as a woman: individual characteristics (age, education, party affiliation), subnational experience, incumbency and district magnitude. These features have been proposed by the literature (see Section 4.2) to explain why proportional systems are associated with a larger presence of women.

6. Measures of Regional Gender Traditionalism

Here we create a measure of regional gender norms, using different waves of the European Value Survey (hereafter, EVS). We use the 1990, 1999 and 2008 EVS surveys as they are those that match most closely to the time period under consideration and include questions about attitudes towards women's role in society. The variables have been coded such that the higher the score, the more gender traditional the view being expressed is. The questions that we use for our factor analysis are as follows:

1. "Having a job is the best way for a woman to be an independent person"*[37]
2. "Both the husband and wife should contribute to household income"*
3. "Do you think that a woman has to have children in order to be fulfilled or is this not necessary?"
4. "A working mother can establish just as warm and secure a relationship with her children as a mother who does not work"*
5. "A pre-school child is likely to suffer if his or her mother works"*

[37]The asterisked questions were to be answered on a scale of agree strongly/agree/disagree/disagree strongly. Whereas, the non-asterisked questions had a binary tend to agree/tend to disagree or needs children/not necessary choice option.

6. “A job is alright but what most women really want is a home and children”*
7. “Do you agree or disagree with the following statement: Marriage is an outdated institution?”
8. “If a woman wants to have a child as a single parent, but she doesn’t want to have a stable relationship with a man, do you approve or disapprove?”

We create a general measure of gender traditionalism on the basis of responses to these questions. Then, from our factor analysis, the following separate strands of gender traditionalism emerge:

How a person feels about:

1. Equality within the household and labour force.
2. Women as care-givers to children, their identity being essentially bound to childcare.
3. The institution of marriage as a defining feature of modern life.

Figures and Tables for the Appendix

Figures

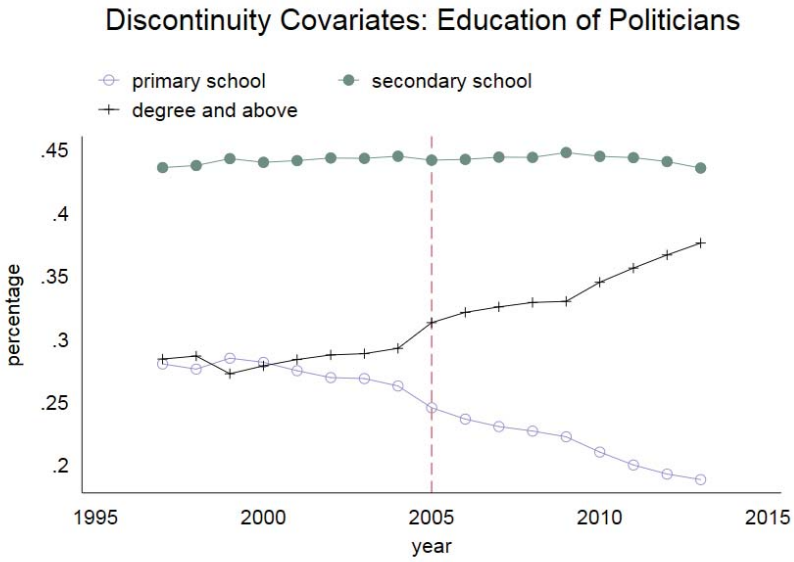


Figure 4.B.1

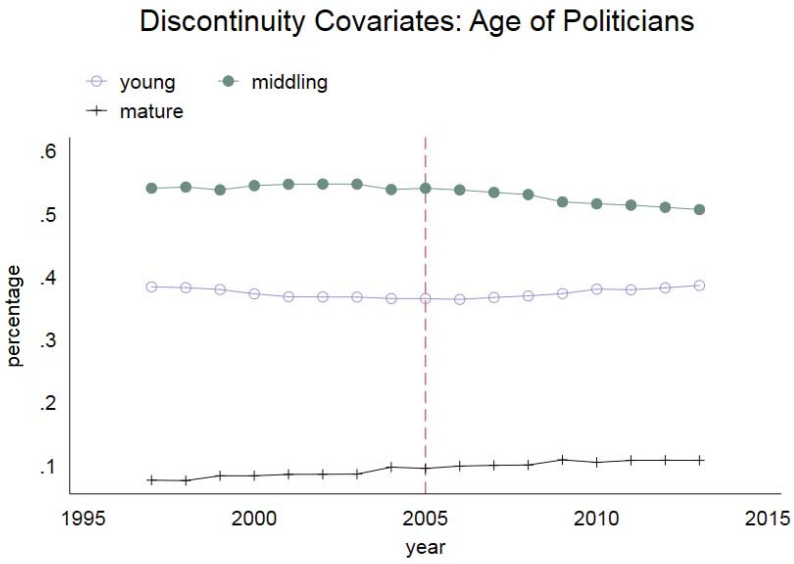


Figure 4.B.2

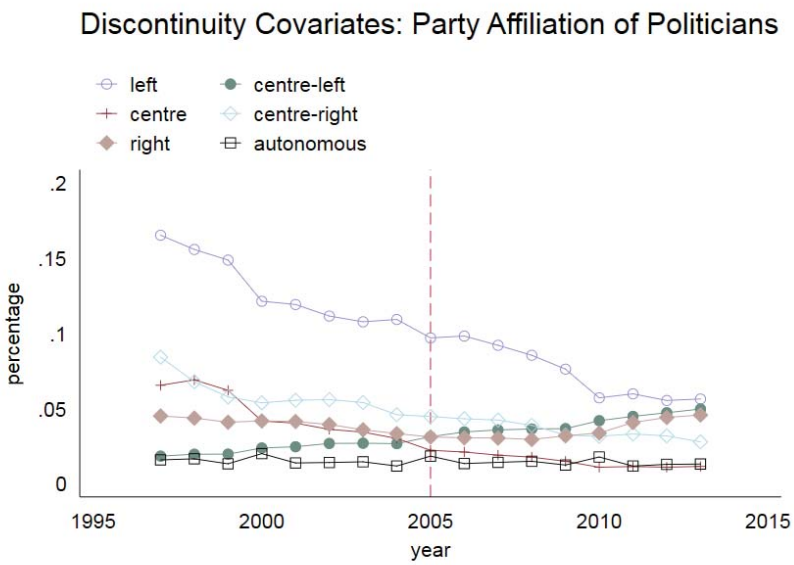


Figure 4.B.3

Tables

Table A4.B.1. Data Sources Summary

Level of Government	Politician Type	Information	Elections	Source
Sub-national levels: regional (president, member of the regional council), provincial (member of the provincial council, president), municipal (mayor, member of the municipal council).	Elected politicians	Name, date of birth, gender, education level, profession, party affiliation, district of election and political role.	All elections in the period 1987-2013	Ministry of Internal Affairs
National level: members of the Parliament (House and Senate)	Candidates	Aggregate data by gender.	1987, 1992, 1994, 1996, 2001, 2006, 2008, 2013	Castiglioni
		Individual data: name, date of birth, gender, education level, profession, party affiliation district of election, whether born out of election region. Position on ballot, whether expected to win, whether elected or not, whether in parliament due to other elected candidate refused position.	2013	CISE, Galasso and Nannicini (2015)
	Elected Politicians	Individual data: Name, date of birth, gender, education level, profession, party affiliation, sub-national experience, status as incumbent, region of election, regional magnitude and political role.	1987, 1992, 1994, 1996, 2001, 2006	Gagliarducci et al (2001)
			2008	Miano
			2013	Galasso and Nannicini (2015)
		Individual data: margin of victory, whether elected in MAJ/PR tier.	1994, 1996, 2001	Gagliarducci et al (2011)
		Individual data: type of seat (safe, competitive, no chance).	2013	CISE, Galasso and Nannicini (2015)

Table A4.B.2. Personal Exposure Measures

	M	F	Diff.	SE	Obs.
Measure 1: Conflict	1.3579	1.4080	0.0501***	0.0086	14352
Measure 2: Resilience	1.6580	1.5167	-0.1413**	0.0572	1610

Note: FORS (2016) data on survey responses from political candidates running for national parliamentary elections. T-tests of the difference between Measures 1 and 2 by gender. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table A4.B.3. Likelihood of Being Placed in Safe Seat: PRE-2005

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	0.407		0.476		0.284		0.353		0.341*
	(0.333)		(0.352)		(0.185)		(0.246)		(0.198)
Edu. High		-0.278***	-0.270**						
		(0.106)	(0.111)						
Female*Edu. High			-0.137						
			(0.388)						
Loyalist				0.245*	0.203				
				(0.133)	(0.140)				
Female*Loyalist					0.239				
					(0.408)				
Parachute						-0.142	-0.158		
						(0.173)	(0.177)		
Female*Parachute							-0.00995		
							(0.323)		
Incumbent								0.343***	0.345***
								(0.107)	(0.111)
Female*Incumbent									0.0596
									(0.365)
Constant	-3.987***	-4.733	-4.458***	-4.730**	-4.734***	-5.938	-5.005	-4.531**	-4.511***
	(0.241)	(3.750)	(0.810)	(1.909)	(1.333)	(12.65)	(5.581)	(1.867)	(1.103)
Observations	1,246	1,238	1,238	1,238	1,238	1,238	1,238	1,238	1,238
Pseudo R2	0.234	0.253	0.256	0.250	0.253	0.248	0.252	0.256	0.260
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: The table reports the coefficients from probit regressions of the likelihood of seeing politician placed in a safe seat prior to the 2005 reform. Dependent variable: a binary measure indicating whether a seat is competitive (1 if safe, 0 otherwise). Controls as described in Table 5. Columns 4-5 exclude education and sub-national experience as they are used to created the loyalist variable. Columns 6-9 exclude sub-national experience as it is used to create the parachute and incumbent variables. Robust standard errors clustered on the district are reported in parentheses. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table A4.B.4. Likelihood of Being Placed in Comp. Seat: PRE-2005

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	-0.842		-0.258		-0.287		-0.139		-0.308
	(2.280)		(0.348)		(0.181)		(0.241)		(0.189)
Edu. High		0.261**	0.275**						
		(0.106)	(0.110)						
Female*Edu. High			-0.0864						
			(0.395)						
Loyalist				-0.216	-0.204				
				(0.133)	(0.141)				
Female*Loyalist					-0.00134				
					(0.414)				
Parachute						0.172	0.211		
						(0.170)	(0.173)		
Female*Parachute							-0.275		
							(0.312)		
Incumbent								-0.132	-0.137
								(0.105)	(0.110)
Female*Incumbent									0.0105
									(0.361)
Constant	-3.023***	-3.264***	-3.185***	-3.083***	-3.013***	-3.221***	-3.152***	-3.150***	-3.072***
	(0.155)	(0.309)	(0.317)	(0.303)	(0.308)	(0.311)	(0.315)	(0.301)	(0.307)
Observations	1,246	1,238	1,238	1,238	1,238	1,238	1,238	1,238	1,238
Pseudo R2	0.316	0.328	0.331	0.326	0.328	0.325	0.327	0.325	0.327
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: The table reports the coefficients from probit regressions of the likelihood of seeing politician placed in a competitive seat prior to the 2005 reform. Dependent variable: a binary measure indicating whether a seat is competitive (1 if competitive, 0 otherwise). Controls as described in Table 5. Columns 4-5 exclude education and sub-national experience as they are used to created the loyalist variable. Columns 6-9 exclude sub-national experience as it is used to create the parachute and incumbent variables. Robust standard errors clustered on the district are reported in parentheses. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table A4.B.5. Likelihood of Being Placed in Safe Seat: POST-2005

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	0.248**		0.0875		0.402***		0.385***		0.286**
	(0.110)		(0.189)		(0.105)		(0.121)		(0.132)
Edu. High		0.165	0.0837						
		(0.136)	(0.158)						
Female*Edu. High			0.231						
			(0.217)						
Loyalist				-0.247*	0.317				
				(0.136)	(0.199)				
Female*Loyalist					-1.660***				
					(0.331)				
Parachute						0.481**	0.741***		
						(0.191)	(0.253)		
Female*Parachute							-0.881***		
							(0.299)		
Incumbent								0.160	0.178
								(0.191)	(0.194)
Female*Incumbent									-0.142
									(0.228)
Constant	0.558***	0.738***	0.597**	0.822***	0.628**	0.854***	0.725**	0.833***	0.670**
	(0.0607)	(0.280)	(0.287)	(0.287)	(0.287)	(0.285)	(0.298)	(0.292)	(0.306)
Observations	926	742	742	742	742	742	742	742	742
Pseudo R2	0.00595	0.0500	0.0565	0.0490	0.0734	0.0582	0.0736	0.0488	0.0547
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: The table reports the coefficients from probit regressions of the likelihood of seeing politician placed in a safe seat following the 2005 reform. Dependent variable: a binary measure indicating whether a seat is safe (1 if safe, 0 otherwise). Controls as described in Table 6. Columns 4-5 exclude education and sub-national experience as they are used to created the loyalist variable. Columns 6-9 exclude sub-national experience as it is used to create the parachute and incumbent variables. Robust standard errors clustered on the district are reported in parentheses. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table A4.B.6. Likelihood of Being Placed in Comp. Seat: POST-2005

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	-0.288**		0.0491		-0.440***		-0.432***		-0.336**
	(0.125)		(0.221)		(0.119)		(0.128)		(0.154)
Edu. High		-0.177	-0.0418						
		(0.123)	(0.136)						
Female*Edu. High			-0.437*						
			(0.239)						
Loyalist				0.371**	-0.274				
				(0.149)	(0.235)				
Female*Loyalist					1.847***				
					(0.392)				
Parachute						-0.347**	-0.665***		
						(0.142)	(0.218)		
Female*Parachute							1.047***		
							(0.285)		
Incumbent								0.0183	-0.0373
								(0.133)	(0.140)
Female*Incumbent									0.277
									(0.229)
Constant	-0.766***	-0.729**	-0.599*	-0.825***	-0.619**	-0.833***	-0.705**	-0.791**	-0.626**
	(0.0687)	(0.299)	(0.305)	(0.312)	(0.314)	(0.306)	(0.318)	(0.312)	(0.319)
Observations	926	742	742	742	742	742	742	742	742
Pseudo R2	0.00800	0.0221	0.0314	0.0230	0.0548	0.0250	0.0465	0.0188	0.0264
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: The table reports the coefficients from probit regressions of the likelihood of seeing politician placed in a competitive seat following the 2005 reform. Dependent variable: a binary measure indicating whether a seat is safe (1 if competitive, 0 otherwise). Controls as described in Table 6. Columns 4-5 exclude education and sub-national experience as they are used to created the loyalist variable. Columns 6-9 exclude sub-national experience as it is used to create the parachute and incumbent variables. Robust standard errors clustered on the district are reported in parentheses. The following symbols indicate different significance levels: *** significant at 1%, ** significant at 5%, * significant at 10%.

Chapter 5

Conclusion

In the chapters that comprise this thesis, I have explored issues of agency and accountability in politics and governance. Thus, addressing fundamental issues regarding the quality of democracy and showing how the rules of the game matter for policy outcomes. By examining a range of contexts - cross-national and single-country, developed and developing, contemporary and at some historical distance - I have presented evidence of the tangible impact that institutions have on individuals' behaviours and on relations of authority within and across organisations. Each chapter is able to shed light on how institutions interact with the contexts in which they are located. We see how electoral incentives drive the logics behind the allocation of public goods in the same way across a wide range of contexts, we see how a nationwide scandal shapes public administration responses differently across provinces, and we see how a national reform has differential effects across within-country regions according to differing gender cultures. I will now summarise the conclusions from each chapter in greater detail.

In the second chapter, using an across-country research design and novel geo-coded data, I present evidence that hybrid governance arrangements are allocated according to distributive logics. I find that public-private partnerships (PPPs) are more frequently assigned to electoral districts that are aligned with the national ruling party, that this likelihood increases with the margin of victory with which the district is won, and that the less directly ascribable a PPP is to the government the less it is used as a distributive good. This chapter highlights the complexities of hybrid governance arrangements in terms of both accountability and agency. The PPPs studied here reduce accountability in the sense that there is a reduction in the ability for the "forum [to] pose questions and pass judgement" (Bovens, 2007, p.450) on the actor, i.e. citizens are less able to identify the policy-maker and the goals of the policy itself, yet governments are still able to use them as distributive goods. Moreover, in terms of agency, such arrangements lengthen the delegation chain from the government to the public service provider and, within the partnership itself, the agency relation between public official and private partner is frequently unclear, given the difficulties - and perverse incentives (Iossa and Martimort, 2016) - in writing complete contracts for PPPs. In terms of the implications of this chapter for ways to improve accountability, the findings highlight the need for awareness-raising with regards to the forms that distributive goods take. In modern governance, non-traditional public goods are being used for distributive politics and it is imperative to strip away some of the rhetorical trappings of 'efficiency' that are associated with PPPs, for example, to incorporate political motivations for their usage. This could be achieved, for example, by introducing political considerations to the evaluation criteria used

to ensure that PPPs offer value for money.

In the third chapter, using a novel within-country research design and dataset, I present evidence that constituencies with national-level politicians who are accused of malfeasance experience an increase in local-level public administrator corruption following the corruption scandal under analysis. I support these findings with evidence that the majority of politicians involved in the corruption scandal re-entered politics after the fact and, thus, had incentives to administer political favours to their constituencies through public administrator 'place-holder' figures. This chapter raises questions about the extent to which more accountability - this case in the form of increased scrutiny of politicians from the media and the judiciary (i.e. the forum posing questions and passing judgement) - is always necessarily a good thing. My findings here suggest that the *context* in which an increase in accountability occurs can significantly affect the kind of effect it has. By no means do I wish to argue that greater scrutiny of politicians is a negative phenomenon, quite the opposite.

In terms of agency relations, the findings presented in this chapter also point to issues of transactional authority in how bureaucracies are run. If politicians are able to influence the functioning of the bureaucracy in even marginal ways - such as limiting the scope of merit laws, manipulating the selection process and the other methods explained in greater depth in Chapter 4 (Golden, 2003) - the power imbalance created as a result can have dire effects for democratic legitimacy. Under such conditions, the transactional nature of the authority relation between the politician and public administrator pushes the reciprocal 'sanctioned acceptance' of the agent and principal outside of the legal realm. Thus, the "menu options that determine the feasible agency discretion" (Carpenter and Krause, 2014, p.6) are opened up significantly and the options no longer depend on bureaucratic agents' willingness to invest in policy expertise, but their willingness to collude with the politician in question. In terms of the implications of the findings in this chapter for accountability, the evidence I present here lends credence to the notion that increased scrutiny must be accompanied by a simultaneous strengthening of institutional responses - "the actor has an obligation to explain and to justify his or her conduct [...] and the actor may face consequences" (Bovens, 2007, p.450). For example, in contexts where corruption in the public sector is known to be a problem and reforms are enacted to increase the accountability of politicians, parallel provisions should be made to intensify the scrutiny of public administrators at all levels of government. Ideally this would occur both internally and externally to the government, with both internal audits and heightened attention from local press organisations.

In the fourth chapter, using a novel within-country research design that takes the literature closer to a causal estimate of the effect of electoral reform on female representation, I present evidence that proportional electoral rules increase the number of women elected to national office as compared with a majoritarian rule. Investigating the mechanism behind this change more closely, I examine the agency relation between party and politician and suggest that the nature of competition under each type of electoral rule changes the agents' strategic incentives. I show that, as with gender quotas (Baltrunaite et al., 2014; Besley et al., 2017), there is no trade-off in terms of the quantity and quality of female representatives, with female representatives always being more or equally as educated as their male counterparts. Although well-documented in the literature on gender quotas, this lack of a quality-quantity

trade-off is not well established in the literature on the effect of electoral reforms on female political representation.

Demonstrating that increasing female representation in all governmental bodies does not come at a cost in terms of quality is important given the many findings that demonstrate that more descriptive representation can bring greater citizen trust in government, greater accountability (Riccucci and Van Ryzin, 2017; Gay, 2002) and greater substantive representation (Bratton and Ray, 2002; Chattopadhyay and Duflo, 2004). In terms of the implications of the findings in this chapter for accountability, my results regarding the lack of voter bias against female politicians teamed with the best female candidates not being selected in the more gender traditional regions of the country suggest that efforts should be concentrated in reducing *party* gender bias. Reforms towards more proportional systems could be accompanied by targeted information campaigns for party leaders, for example, to raise awareness about the electoral benefits of championing the best female candidates within the party. This could make party leaders more reactive to the demands of voters regarding gender and representation and, thus, increase accountability without opting immediately for a gender quota, which can be complex to implement effectively and can - insofar as they 'distort' open competition - be seen to reduce accountability in the long run.

I have presented each of the projects that comprise this thesis at a variety of different, internationally recognised conferences and will continue to do so in the coming months. The feedback from these presentations will be of the utmost importance for the next steps I intend to take to refine my analyses. With respect to Chapter 2, I intend to enrich my understanding of the contexts in which the allocation of PPPs takes place by conducting interviews with experts at development banks. This should help to inform the way in which I model the decision-making processes of governments deciding how to allocate PPPs. I also intend to further leverage on the district-level data I have assembled in order to look more closely into electoral trends and ideological differences across districts to understand better the distributive logics behind PPP allocation. With respect to Chapter 3, I am considering the option of seeing whether I can identify a long-term effect of the increase in corruption that I observe, by introducing further ISTAT data recording measures of the quality of provincial public administration bodies (e.g. unpaid absences/total absences, human resource turnover, training degree of employees). Chapter 4 is the paper that has been presented the most widely and all the comments received about the project so far have been incorporated into the text. It is in the process of being submitted to a journal.

Chapter 2, in particular, is part of a broader research agenda in which I investigate the politics of infrastructure development, focusing particularly on hybrid forms of public service delivery, the ways in which they are distributed, how they are affected by broader institutional changes and their impact on voters. I currently have three other ongoing projects as part of this agenda and several more in the pipeline.

The first of the ongoing projects (joint work with Camila Angulo Amaya and Anthony Bertelli) builds on the project presented in Chapter 2, looking into how voters respond to the allocation of a PPP to their district. In this project we geo-locate PPPs across the electoral map of Colombia, linking districts to voter response surveys, and find that experience with PPPs actually has a negative impact on voters' evaluations of incumbents. The second

(joint work with Anthony Bertelli and Alfonso Maselli), uses a novel dataset on PPPs across European (European Union (EU) members and candidate countries) to investigate the impact of accession to the EU on the use of PPPs for infrastructure delivery. Our preliminary results suggest that governments refocus their efforts away from infrastructure development after meeting accession criteria, unless they acquire more structural funds - a benefit of accession - from the EU to support it, relaxing domestic budget constraints. Moreover, some of our evidence suggests that political demands for expenditure from greater party representation in the legislature can also increase the attractiveness of funding distributive goods through PPPs. The third of the ongoing projects (joint work with Anthony Bertelli and Valentina Mele) asks whether political institutions moderate the influence of corruption on privately financed infrastructure projects. We develop and test a theory that electoral competition incentivises politicians to monitor bureaucratic corruption and focus on the public benefits of projects. Without such incentives, corruption is not monitored and the private benefits of bribes and favourable contract terms are responsible for increasing numbers of projects. Using regression models for count data, we find support for our argument: as public sector corruption increases in democracies, no change in the number of projects is observed, while more projects emerge in non-democracies as corruption worsens. Our findings suggest that improved democracy at the ballot box substitutes for the "benefit" of corruption in stimulating infrastructure projects. Two further projects I intend to embark on in the coming months would expand this research agenda further. One analyses the distributive allocation of PPPs in the context of the United Kingdom, using local-level performance indicators to investigate the relationship between public administrations' efficacy and their propensity to use PPPs. The other uses novel worldwide data on PPPs to examine how networks of private partners interact to shape the use of PPPs across the globe.

This thesis did not have as its primary aim a single theoretical contribution. Each chapter is designed to make a unique contribution by providing novel data, careful empirical analysis and a causal argument. That being said, the theoretical implications of the thesis are significant. As highlighted in the introduction, the relationship that emerges as of central importance in all three of the chapters is that between principal and agent and how this affects accountability, specifically with accountability in the increasingly complex world of modern governance. We see that accountability is rendered more difficult by increasingly complex, hybrid modes of public service delivery, by more fragmented governance structures spread over different administrative levels and with a decreasing presence of local news outlets, and by polarisation within countries with respect to major cultural values due to heightened the inequality associated with globalisation.

Each of the projects that comprise this thesis, then, unveils the need for more theorising about how the increasingly challenging features of modern governance affect democratic legitimacy. The notion that elections, electoral campaigns, and in-office vote-seeking behaviour will continue to work as they have in the past is naïve. If work analysing political institutions is to constructively inform policy and improve modern governance, theories should be tested that ask questions about specific aspects of modern governing tools and rigorously investigate their implications for accountability. The findings produced from testing such theories could then bolster the argument to better integrate the 'cost for accountability' into policy decision-

making processes, to counterbalance efficiency arguments. If we are to protect our democracies and the value of the democratic process, it is of the utmost importance to understand how modern tools of governance - be they algorithms or PPPs - affect accountability.

To return to Lynn (2006) and where this thesis started, then, the vulnerability of modern governance "lies in the sheer difficulty of ensuring reciprocity, the fair exchange of values, essential to the integrity of any type of contractual relationship" [p.178]. With globalisation, the rise of inequality, and the spread of populism that characterise present times, this balance has never been more important. By conducting careful empirical work in a range of settings, this thesis attempts to show the complexities of the contractual relationships that comprise modern governance. I believe that democracy can be inoculated against the threats presented by the global era - new technologies, demographic changes, new economic trends, to name just a few - through the gradual unveiling, analysing and unpacking of these complexities.

Bibliography

Arnstein Aassve, Pierluigi Conzo, and Francesco Mattioli. Was Banfield right? New insights from a nationwide laboratory experiment. *Working Paper*, 2018a.

Arnstein Aassve, Gianmarco Daniele, and Marco Le Moglie. Never forget the first time: the persistent effects of corruption and the rise of populism in Italy. *BAFFI CAREFIN Centre Research Paper*, (2018-96), 2018b.

Antonio Acconcia and Claudia Cantabene. A big push to deter corruption: evidence from Italy. *Giornale degli Economisti e Annali di Economia*, pages 75–102, 2008.

Christopher H Achen and Larry M Bartels. Blind retrospection: electoral responses to drought, flu, and shark attacks. *Working Paper*, 2004.

Hirotugu Akaike. Akaike's information criterion. In *International Encyclopedia of Statistical Science*, pages 25–25. Springer, 2011.

Michael Albertus. Vote buying with multiple distributive goods. *Comparative Political Studies*, 46(9):1082–1111, 2013.

Peter Allen, David Cutts, and Rosie Campbell. Measuring the quality of politicians elected by gender quotas–are they any different? *Political Studies*, 64(1):143–163, 2016.

Christopher J Anderson and Yuliya V Tverdova. Corruption, political allegiances, and attitudes toward government in contemporary democracies. *American Journal of Political Science*, 47(1):91–109, 2003.

Camila Angulo, Anthony Bertelli, and Eleanor Woodhouse. The political cost of public-private partnerships: theory and evidence from Colombian infrastructure development. *Working Paper*, 2019.

Raffaele Asquer, Miriam A Golden, and Brian T Hamel. Corruption, party leaders, and candidate selection: evidence from Italy. *Working Paper*, 2018.

Emmanuelle Auriol and Pierre M Picard. A theory of BOT concession contracts. *Journal of Economic Behavior & Organization*, 89:187–209, 2013.

David H Autor. Outsourcing at will: the contribution of unjust dismissal doctrine to the growth of employment outsourcing. *Journal of Labor Economics*, 21(1):1–42, 2003.

Manuel Bagues and Pamela Campa. Can gender quotas in candidate lists empower women? Evidence from a regression discontinuity design. *CEPR Discussion Paper No. 12149, IZA Discussion Paper No. 10888*, 2017.

Rob Ball, Maryanne Heafey, and David King. Private finance initiative–a good deal for the public purse or a drain on future generations? *Policy & Politics*, 29(1):95–108, 2001.

Audinga Baltrunaite, Piera Bello, Alessandra Casarico, and Paola Profeta. Gender quotas and the quality of politicians. *Journal of Public Economics*, 118:62–74, 2014.

Audinga Baltrunaite, Alessandra Casarico, Paola Profeta, and Giulia Savio. Let the voters choose women. *CESifo Working Paper Series No. 5693*, 2017.

Edward Banfield. *The Moral Basis of a Backward Society*. The Free Press, 1958.

World Bank. Private Participation in Infrastructure Database. *http://ppi.worldbank.org*, 2017.

Stefano Bartolini and Roberto D'Alimonte. Plurality competition and party realignment in Italy: the 1994 parliamentary elections. *European journal of political research*, 29(1): 105–142, 1996.

Stefano Bartolini, Alessandro Chiaramonte, and Roberto D'Alimonte. The Italian party system between parties and coalitions. *West European Politics*, 27(1):1–19, 2004.

Muhammet Ali Bas, Curtis S Signorino, and Robert W Walker. Statistical backwards induction: a simple method for estimating recursive strategic models. *Political Analysis*, 16 (1):21–40, 2008.

Kathleen Bawn. The logic of institutional preferences: German electoral law as a social choice outcome. *American Journal of Political Science*, pages 965–989, 1993.

Lori Beaman, Raghabendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova. Powerful women: does exposure reduce bias? *The Quarterly Journal of Economics*, 124(4): 1497–1540, 2009.

Kenneth Benoit and Jacqueline Hayden. Institutional change and persistence: the evolution of Poland's electoral system, 1989–2001. *Journal of Politics*, 66(2):396–427, 2004.

Kenneth Benoit and John W Schiemann. Institutional choice in new democracies: bargaining over Hungary's 1989 electoral law. *Journal of Theoretical Politics*, 13(2):153–182, 2001.

Anthony Bertelli and Madalina Busuioc. Reputation-sourced authority and the prospect of unchecked bureaucratic power. *Working Paper*, 2018.

Anthony Bertelli, Valentina Mele, and Eleanor Woodhouse. Corruption, democracy and infrastructure agreements. *Working Paper*, 2019.

Anthony M Bertelli. Who are the policy workers, and what are they doing? Citizen's heuristics and democratic accountability in complex governance. *Public Performance & Management Review*, 40(2):208–234, 2016.

Anthony M Bertelli. Public goods, private partnerships, and political institutions. *Journal of Public Administration Research and Theory*, 2018.

Anthony M Bertelli and Christian R Grose. Secretaries of pork? A new theory of distributive public policy. *The Journal of Politics*, 71(3):926–945, 2009.

Timothy Besley, Olle Folke, Torsten Persson, and Johanna Rickne. Gender quotas and the crisis of the mediocre man: theory and evidence from Sweden. *American Economic Review*, 107(8):2204–42, 2017.

André Blais. The classification of electoral systems. *European Journal of Political Research*, 16(1):99–110, 1988.

Bloomberg. Company overview of SUEZ SA. `https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=9004147`, 2018. Online: accessed 26 July 2018.

Vernon Bogdanor. Introduction. In Vernon Bogdanor and David Butler, editors, *Democracy and elections: electoral systems and their political consequences*. Cambridge, 1983.

Carles Boix. Setting the rules of the game: the choice of electoral systems in advanced democracies. *American Political Science Review*, 93(3):609–624, 1999.

Chiara Bologna, Justin Frosini, Peter Leyland, Andrea Ross-Robertson, and Mayte Salvatore Crespo. *Europe, Regions and Local Government in Italy, Spain and the United Kingdom*. Libreria Bonomo Editrice, 2003.

Massimo Bordignon, Tommaso Nannicini, and Guido Tabellini. Moderating political extremism: single round versus runoff elections under plurality rule. *The American Economic Review*, 106(8):2349–2370, 2016.

Nils-Christian Bormann and Matt Golder. Democratic electoral systems around the world, 1946–2011. *Electoral Studies*, 32(2):360–369, 2013.

Mark Bovens. Analysing and assessing accountability: a conceptual framework. *European Law Journal*, 13(4):447–468, 2007.

Dawn Brancati. Global Elections Database. `http://www.globalelectionsdatabase.com/`, 2018. Online: accessed 23 February 2018.

Kathleen A Bratton and Leonard P Ray. Descriptive representation, policy outcomes, and municipal day-care coverage in Norway. *American Journal of Political Science*, pages 428–437, 2002.

Marilynn B Brewer. The psychology of prejudice: ingroup love and outgroup hate? *Journal of Social Issues*, 55(3):429–444, 1999.

Mónica Pachón Buitrago and María Paula Aroca. Effects of institutional reforms on women's representation in Colombia, 1960–2014. *Latin American Politics and Society*, 59(2):103–121, 2017.

A Colin Cameron and Pravin K Trivedi. *Microeconometrics: methods and applications*. Cambridge University Press, 2005.

Pamela Campa, Alessandra Casarico, and Paola Profeta. Gender culture and gender gap in employment. *CESifo Economic Studies*, 57(1):156–182, 2010.

John M Carey and Simon Hix. The electoral sweet spot: low-magnitude proportional electoral systems. *American Journal of Political Science*, 55(2):383–397, 2011.

John M Carey and Matthew Soberg Shugart. Incentives to cultivate a personal vote: a rank ordering of electoral formulas. *Electoral Studies*, 14(4):417–439, 1995.

Daniel Carpenter and George Krause. Transactional authority and bureaucratic politics. *Journal of Public Administration Research and Theory*, 2014.

Susan J Carroll. *Women as candidates in American politics*. Indiana University Press, 1994.

Pablo Casas-Arce and Albert Saiz. Women and power: unpopular, unwilling, or held back? *Journal of Political Economy*, 123(3):641–669, 2015.

Sabino Cassese. La riforma amministrativa all'inizio della quinta costituzione dell'italia unita. *Il Foro Italiano*, 117(5):249–272, 1994.

Michele Castiglioni. Institutional determinants of politicians' career trajectories. Evidence from Italy. *Working Paper*, 2018.

Miki Caul. Women's representation in parliament: the role of political parties. *Party politics*, 5(1):79–98, 1999.

N Joseph Cayer and Lee Sigelman. Minorities and women in state and local government: 1973-1975. *Public Administration Review*, pages 443–450, 1980.

Eric CC Chang, Miriam A Golden, and Seth J Hill. Legislative Malfeasance and Political Accountability. *World Politics*, 62(2):177–220, 2010.

Raghabendra Chattopadhyay and Esther Duflo. Women as policy makers: evidence from a randomized policy experiment in India. *Econometrica*, 72(5):1409–1443, 2004.

Judith Chubb. *Patronage, power and poverty in southern Italy: a tale of two cities*. Cambridge University Press, 1982.

Janet Clark, Robert Darcy, Susan Welch, and Margery Ambrosius. Women as legislative candidates in six states. *Political women: Current roles in state and local government*, pages 141–55, 1984.

Gary W Cox. 13 swing voters, core voters, and distributive politics. *Political Representation*, 342, 2009.

Gary W Cox and Mathew D McCubbins. Electoral politics as a redistributive game. *The Journal of Politics*, 48(2):370–389, 1986.

Cesi Cruz and Christina J Schneider. Foreign aid and undeserved credit claiming. *American Journal of Political Science*, 61(2):396–408, 2017.

Cesi Cruz, Philip Keefer, and Carlos Scartascini. The database of political institutions. 2015.

Robert Dahl. The science of public administration: three problems. *Public Administration Review*, 7(1):1–11, 1947.

Drude Dahlerup and Lenita Freidenvall. *Electoral gender quota systems and their implementation in Europe*. European Parliament, 2011.

Roberto D'Alimonte. Mixed electoral rules, partisan realignment, and party system change in Italy. *Mixed-member electoral systems: The best of both worlds*, pages 96–122, 2001.

Gianmarco Daniele, Sergio Galletta, and Benny Geys. Abandon ship? Party brands and politicians' responses to a political scandal. *Working Paper*, 2018.

John D'Attoma. More bang for your buck: tax compliance in the United States and Italy. *Journal of Public Policy*, 2018.

Clara Delavallade. Corruption and distribution of public spending in developing countries. *Journal of Economics and Finance*, 30(2):222–239, 2006.

D Della Porta and A Vannucci. Corruzione politica e amministrazione pubblica: risorse, meccanismi, attori. 1994.

Donatella Della Porta and Alberto Vannucci. Corruption and anti-corruption: the political defeat of 'Clean Hands' in Italy. *West European Politics*, 30(4):830–853, 2007.

Rafael Di Tella and Ernesto Schargrodsky. The role of wages and auditing during a crackdown on corruption in the city of Buenos Aires. *The Journal of Law and Economics*, 46(1): 269–292, 2003.

Avinash Dixit and John Londregan. The determinants of success of special interests in redistributive politics. *The Journal of Politics*, 58(4):1132–1155, 1996.

David Dollar, Raymond Fisman, and Roberta Gatti. Are women really the "fairer" sex? Corruption and women in government. *Journal of Economic Behavior & Organization*, 46 (4):423–429, 2001.

Anthony Downs. *Inside Bureaucracy*. Boston: Little, Brown, 1967.

Thad Dunning and Susan Stokes. Persuasion vs. mobilization. *Unpublished Manuscript, Yale University*, 2007.

Peter Egger and Hannes Winner. How corruption influences foreign direct investment: a panel data study. *Economic Development and Cultural Change*, 54(2):459–486, 2006.

Berta Esteve-Volart and Manuel Bagues. Are women pawns in the political game? Evidence from elections to the Spanish Senate. *Journal of Public Economics*, 96(3):387–399, 2012.

European Institute for Gender Equality. Gender equality index 2017: Italy. `file:///Users/EFW/Downloads/20181393_mh0418187enn_pdf_it.pdf`, 2017.

Diana Evans. *Greasing the wheels: using pork barrel projects to build majority coalitions in Congress*. Cambridge University Press, 2004.

John A Ferejohn. *Pork barrel politics: rivers and harbors legislation, 1947-1968*. Stanford University Press, 1974.

Raquel Fernandez. Women, work, and culture. *Journal of the European Economic Association*, 5(2-3):305–332, 2007.

Olle Folke and Johanna Rickne. Electoral competition and gender differences in political careers. *Quarterly Journal of Political Science*, 11(1):59–102, 2016.

John M Foot. From Boomtown to Bribesville: the images of the city, Milan, 1980-97. *Urban History*, 26(3):393–412, 1999.

John Forrer, James Edwin Kee, Kathryn E Newcomer, and Eric Boyer. Public–private partnerships and the public accountability question. *Public Administration Review*, 70(3): 475–484, 2010.

Lasuanne FORS. Comparative candidates survey module i - 2005-2013 [dataset - cumulative file]. `http://www.comparativecandidates.org/`, 2016.

Guillaume R Fréchette, Francois Maniquet, and Massimo Morelli. Incumbents' interests and gender quotas. *American Journal of Political Science*, 52(4):891–909, 2008.

Stefano Gagliarducci, Tommaso Nannicini, and Paolo Naticchioni. Electoral rules and politicians' behavior: a micro test. *American Economic Journal: Economic Policy*, 3(3): 144–174, 2011.

Vincenzo Galasso and Tommaso Nannicini. Competing on good politicians. *American Political Science Review*, 105(1):79–99, 2011.

Vincenzo Galasso and Tommaso Nannicini. So closed: political selection in proportional systems. *European Journal of Political Economy*, 40:260–273, 2015.

Vincenzo Galasso and Tommaso Nannicini. Political selection under alternative electoral rules. *Public Choice*, 171(3-4):257–281, 2017.

Claudine Gay. Spirals of trust? The effect of descriptive representation on the relationship between citizens and their government. *American Journal of Political Science*, pages 717–732, 2002.

Miriam Golden. Charges of malfeasance, preference votes, government portfolios, and characteristics of legislators, chamber of deputies, Republic of Italy, Legislatures I-XI (1948-1994): Parliamentary malfeasance, 2014. URL `https://hdl.handle.net/1902.1/10194`.

Miriam A Golden. Electoral connections: the effects of the personal vote on political patronage, bureaucracy and legislation in postwar Italy. *British Journal of Political Science*, 33(2): 189–212, 2003.

Miriam A Golden and Lucio Picci. Proposal for a new measure of corruption, illustrated with Italian data. *Economics & Politics*, 17(1):37–75, 2005.

Justin Grimmer, Sean J Westwood, and Solomon Messing. *The impression of influence: legislator communication, representation, and democratic accountability*. Princeton University Press, 2014.

Stephen Gundle and Simon Parker. *The new Italian Republic: from the fall of the Berlin Wall to Berlusconi*. Routledge, 2002.

EC Gürakar and Tuba Bircan. Political connections and public procurement in Turkey: evidence from construction work contracts. In *Political economy determinants of private sector dynamism in the ERF region. Economic Research Forum*, 2016.

Thomas H Hammond and Paul A Thomas. The impossibility of a neutral hierarchy. *Journal of Law, Economics & Organization.*, 5:155, 1989.

Carolyn J Heinrich, Laurence E Lynn Jr, and H Brinton Milward. A state of agents? Sharpening the debate and evidence over the extent and impact of the transformation of governance. *Journal of Public Administration Research and Theory*, 20(suppl_1):i3–i19, 2009.

Joel S Hellman, Geraint Jones, and Daniel Kaufmann. *Seize the state, seize the day: state capture, corruption, and influence in transition*. The World Bank, 2000.

Gretchen Helmke and Steven Levitsky. *Informal institutions and democracy: lessons from Latin America*. JHU Press, 2006.

Magda Hinojosa. "Whatever the party asks of me": women's political representation in Chile's Unión Demócrata Independiente. *Politics & Gender*, 5(3):377–407, 2009.

Magda Hinojosa. *Selecting women, electing women: political representation and candidate selection in Latin America*. Temple University Press, 2012.

Magda Hinojosa and Susan Franceschet. Separate but not equal: the effects of municipal electoral reform on female representation in Chile. *Political Research Quarterly*, 65(4): 758–770, 2012.

Shigeo Hirano, James M Snyder Jr, and Michael M Ting. Distributive politics with primaries. *The Journal of Politics*, 71(4):1467–1480, 2009.

Mala Htun. Puzzles of women's rights in Brazil. *Social Research: An International Quarterly*, 69(3):733–751, 2002.

Mala N Htun and Mark P Jones. Engendering the right to participate in decision-making: electoral quotas and women's leadership in Latin America. In *Gender and the politics of rights and democracy in Latin America*, pages 32–56. Springer, 2002.

John Hudak. *Presidential pork: White House influence over the distribution of federal grants*. Brookings Institution Press, 2014.

Il Post. Il Porcellum e noi: Ripasso su come funziona e da dove viene la famigerata legge, ora che sappiamo che ci eleggeremo anche il prossimo parlamento, e il video del suo battesimo. http://www.ilpost.it/2012/12/12/legge-elettorale-calderoli-porcellum/, 2012.

Il Corriere della Sera. «Chiesa è un mariuolo». https://video.corriere.it/chiesa-mariuolo/66cf2528-5800-11e1-8cd8-b2fbc2e45f9f?refresh_ce-cp, 2012.

Il Corriere della Sera. Grillo attacca Boldrini: «Sei un oggetto di arredamento del potere», 2013.

Il Fatto Quotidiano. Corruzione, cantone: "Da Mani Pulite siamo peggiorati, soprattutto sulle leggi". https://www.ilfattoquotidiano.it/2015/02/17/corruzione-cantone-mani-pulite-peggiorati-sulle-leggi/1433163/, 2015.

Il Fatto Quotidiano. "Mani Pulite-25 anni dopo", il libro. dai pm "manettari" ai "comunisti salvati", ecco le post verità su tangentopoli. https://www.ilfattoquotidiano.it/2017/02/24/mani-pulite-25-anni-dopo-il-libro-dai-pm-manettari-ai-comunisti-salvati-ecco-le-post 3415022/, 2017.

Il Ministero della Giustizia. Biblioteca virtuale pubblicazioni ufficiali dello stato. http://www.bv.ipzs.it/include/Pubblicazioni.jsp?TP=notRuoli&ricerca=ministero&emettitore=Ministero%20della%20Giustizia&codEmett=3&codPubbl=1, 2018.

Il Sole 24 Ore. Mani Pulite, una illusione che non è potuta durare. https://www.ilsole24ore.com/art/notizie/2017-02-16/mani-pulite-illusione-che-non-e-potuta-durare--191243.shtml?uuid=AEewGeX, 2017.

Ronald Inglehart and Pippa Norris. *Rising tide: gender equality and cultural change around the world*. Cambridge University Press, 2003.

Instituto Nacional Electoral. Sistema de consulta de la estadística de las elecciones federales. http://siceef.ife.org.mx/pef2012/SICEEF2012.html#, 2018. Online: accessed 20 February 2018.

Inter-Parliamentary Union. Women in parliament in 2016: the year in review. Technical report, Inter-Parliamentary Union, 2016.

Elisabetta Iossa and David Martimort. Corruption in PPPs, incentives and contract incompleteness. *International Journal of Industrial Organization*, 44:85–100, 2016.

IPU. Inter-parliamentary union: women in national parliaments. http://archive.ipu.org/wmn-e/classif.htm, 2017.

ISTAT. Attività e organizzazione delle unità istituzionali. http://dati.istat.it/, 2011.

ISTAT. Il mercato del lavoro: La lenta ripresa e le disparitÀ nei gruppi sociali. https://www.istat.it/it/files/2017/05/RA2017_cap4.pdf, 2017.

Torben Iversen and Frances McCall Rosenbluth. *Women, work, and politics: The political economy of gender inequality*. Yale University Press, 2010.

Gary C Jacobson. Strategic politicians and the dynamics of US house elections, 1946–86. *American Political Science Review*, 83(3):773–793, 1989.

Marco A Janssen, Örjan Bodin, John M Anderies, Thomas Elmqvist, Henrik Ernstson, Ryan RJ McAllister, Per Olsson, and Paul Ryan. Toward a network perspective of the study of resilience in social-ecological systems. *Ecology and Society*, 11(1), 2006.

Robert Johns. Credit where it's due? Valence politics, attributions of responsibility, and multi-level elections. *Political Behavior*, 33(1):53–77, 2011.

Mark P Jones and Patricio Navia. Assessing the effectiveness of gender quotas in open-list proportional representation electoral systems. *Social Science Quarterly*, pages 341–355, 1999.

Kristin Kanthak and Jonathan Woon. Women don't run? Election aversion and candidate entry. *American Journal of Political Science*, 59(3):595–612, 2015.

Richard S Katz. Electoral reform and the transformation of party politics in Italy. *Party Politics*, 2(1):31–53, 1996.

Richard S Katz. Reforming the Italian electoral law, 1993. *Mixed-member electoral systems: The best of both worlds*, pages 96–122, 2001.

Daniel Kaufmann and Pedro C Vicente. Legal corruption. *Economics & Politics*, 23(2): 195–219, 2011.

Philip Keefer and Stephen Knack. Why don't poor countries catch up? A cross-national test of an institutional explanation. *Economic Inquiry*, 35(3):590–602, 1997.

Lane Kenworthy and Melissa Malami. Gender inequality in political representation: a worldwide comparative analysis. *Social Forces*, 78(1):235–268, 1999.

James D King. Single-member districts and the representation of women in American state legislatures: the effects of electoral system change. *State Politics & Policy Quarterly*, 2(2): 161–175, 2002.

Miki Caul Kittilson. *Challenging parties, changing parliaments: women and elected office in contemporary Western Europe*. Ohio State University Press, 2006.

Miki Caul Kittilson and Leslie A Schwindt-Bayer. *The gendered effects of electoral institutions: political engagement and participation*. Oxford University Press, 2012.

Gary A Knight. Consumer preferences for foreign and domestic products. *Journal of Consumer Marketing*, 16(2):151–162, 1999.

Kaisa Kotakorpi, Panu Poutvaara, and Marko Terviö. Returns to office in national and local politics: a bootstrap method and evidence from Finland. *The Journal of Law, Economics, and Organization*, 33(3):413–442, 2017.

George A Krause and Benjamin F Melusky. Retrospective economic voting and the intertemporal dynamics of electoral accountability in the American states. *The Journal of Politics*, 76(4):1102–1115, 2014.

George A Krause, David E Lewis, and James W Douglas. Political appointments, civil service systems, and bureaucratic competence: organizational balancing and executive branch revenue forecasts in the American states. *American Journal of Political Science*, 50(3): 770–787, 2006.

Mona Krook and Fiona Mackay. *Gender, politics and institutions: towards a feminist institutionalism*. Springer, 2010.

Mona Lena Krook. *Quotas for women in politics: gender and candidate selection reform worldwide*. Oxford University Press, 2010a.

Mona Lena Krook. Studying political representation: A comparative-gendered approach. *Perspectives on Politics*, 8(1):233–240, 2010b.

Sheri Kunovich. The representation of Polish and Czech women in national politics: predicting electoral list position. *Comparative Politics*, pages 273–291, 2003.

Jean-Jacques Laffont and David Martimort. *The theory of incentives: the principal-agent model*. Princeton University Press, 2009.

Enid Lakeman. *How Democracies Vote: A Study of Electoral Systems*. Faber, London, 1974.

Stina Larserud and Rita Taphorn. Designing for equality: women's quotas and women's political participation. *Development*, 50(1):36–42, 2007.

L'Assemblea Constituente. Costituzione della Repubblica Italiana. `https://www.senato.it/documenti/repository/istituzione/costituzione.pdf`, 1946.

Hans-Joachim Lauth. Informal institutions and democracy. *Democratization*, 7(4):21–50, 2000.

Thomas Le Barbanchon and Julien Sauvagnat. Voter bias and women in politics. *Centre for Economic Policy Researh: Discussion Paper*, 2018.

Michael Lechner et al. The estimation of causal effects by difference-in-difference methods. *Foundations and Trends® in Econometrics*, 4(3):165–224, 2011.

Frances E Lee. Geographic politics in the US House of Representatives: coalition building and distribution of benefits. *American Journal of Political Science*, 47(4):714–728, 2003.

Assar Lindbeck and Jörgen W Weibull. Balanced-budget redistribution as the outcome of political competition. *Public Choice*, 52(3):273–297, 1987.

Staffan I Lindberg, Michael Coppedge, John Gerring, and Jan Teorell. V-Dem: a new way to measure democracy. *Journal of Democracy*, 25(3):159–169, 2014.

Cheol Liu and John L Mikesell. The impact of public officials' corruption on the size and allocation of US state spending. *Public Administration Review*, 74(3):346–359, 2014.

Alessandro Lizzeri and Nicola Persico. The provision of public goods under alternative electoral incentives. *American Economic Review*, pages 225–239, 2001.

Scott J. Long. Regression models for categorical and limited dependent variables. *Advanced Quantitative Techniques in the Social Sciences*, 7, 1997.

Laurence E Lynn. The myth of the bureaucratic paradigm: what traditional public administration really stood for. *Public Administration Review*, 61(2):144–160, 2001.

Laurence E Lynn. *Public management: old and new*. Routledge, 2006.

Arthur Maass. *Muddy waters; the Army Engineers and the Nation's rivers*. Harvard University Press, 1951.

Monty G Marshall and Keith Jaggers. Polity IV project: political regime characteristics and transitions, 1800-2002. 2002.

Eric Maskin and Jean Tirole. Public–private partnerships and government spending limits. *International Journal of Industrial Organization*, 26(2):412–420, 2008.

Richard E Matland. Institutional variables affecting female representation in national legislatures: the case of Norway. *The Journal of Politics*, 55(3):737–755, 1993.

Richard E Matland. Women's representation in national legislatures: Developed and developing countries. *Legislative Studies Quarterly*, pages 109–125, 1998.

Richard E Matland and Deborah Dwight Brown. District magnitude's effect on female representation in US state legislatures. *Legislative Studies Quarterly*, pages 469–492, 1992.

Richard E Matland and Donley T Studlar. The contagion of women candidates in single-member district and proportional representation electoral systems: Canada and Norway. *The Journal of Politics*, 58(3):707–733, 1996.

Andrea Mattozzi and Antonio Merlo. Mediocracy. *Journal of Public Economics*, 130:32–44, 2015.

Paolo Mauro. Corruption and growth. *The Quarterly Journal of Economics*, 110(3):681–712, 1995.

Nolan M McCarty. Presidential pork: executive veto power and distributive politics. *American Political Science Review*, 94(1):117–129, 2000.

Walter R Mebane Jr and Gregory J Wawro. Presidential pork barrel politics. *Unpublished manuscript. Cornell University*, 2002.

Fernando Meireles, Rubim Andrade, and Luciana Vieira. Electoral magnitude and women's political representation in Brazilian municipalities. *Revista de Sociologia e Política*, 25(63): 79–101, 2017.

Guido Melis. *Storia dell'amministrazione italiana (1861-1993)*. Il Mulino, 1996.

Gabriella R Montinola and Robert W Jackman. Sources of corruption: a cross-country study. *British Journal of Political Science*, 32(1):147–170, 2002.

Rainbow Murray, Mona Lena Krook, and Katherine AR Opello. Why are gender quotas adopted? Party pragmatism and parity in France. *Political Research Quarterly*, 65(3): 529–543, 2012.

Tommaso Nannicini, Andrea Stella, Guido Tabellini, and Ugo Troiano. Social capital and political accountability. *American Economic Journal: Economic Policy*, 5(2):222–50, 2013.

Simeon Nichter. Vote buying or turnout buying? Machine politics and the secret ballot. *American Political Science Review*, 102(1):19–31, 2008.

Roger G Noll and Morris P Fiorina. *Voters, bureaucrats and legislators: a rational choice perspective on the growth of bureaucracy*. Graduate School of Business, Stanford University, 1977.

Pippa Norris. Women's legislative participation in Western Europe. *West European Politics*, 8(4):90–101, 1985.

Pippa Norris. The impact of electoral reform on women's representation. *Acta Politica*, 41(2): 197–213, 2006.

Pippa Norris and Joni Lovenduski. *Gender and party politics*. Sage Publications, 1993.

Pippa Norris and Joni Lovenduski. *Political recruitment: gender, race and class in the British Parliament*. Cambridge University Press, 1995.

Joseph S Nye, Philip Zelikow, and David C King. *Why people don't trust government*. Harvard University Press, 1997.

OECD. Cleangovbiz: integrity in practice. `https://www.oecd.org/cleangovbiz/49693613.pdf`, 2014.

OECD. Trust and public policy how better governance can help rebuild public trust. `https://www.oecd-ilibrary.org/docserver/9789264268920-en.pdf?expires=1545149462&id=id&accname=oid009613&checksum=BE3B7E03756F10B5E0D7D00291006D0B`, 2017.

OECD. Oecd: Women in national parliaments. `http://www.oecd.org/gender/data/female-share-of-seats-in-national-parliaments.htm`, 2017.

OECD. Taxing wages - Italy. `https://www.oecd.org/italy/taxing-wages-italy.pdf`, 2018.

Chike Okechuku. The importance of product country of origin: a conjoint analysis of the United States, Canada, Germany and the Netherlands. *European Journal of Marketing*, 28 (4):5–19, 1994.

Gianmarco IP Ottaviano. Infrastructure and economic geography: an overview of theory and evidence. *EIB papers*, 13(2):8–35, 2008.

Pamela Paxton and Sheri Kunovich. Women's political representation: the importance of ideology. *Social Forces*, 82(1):87–113, 2003.

Torsten Persson and Guido Tabellini. The size and scope of government: comparative politics with rational politicians. *European Economic Review*, 43(4):699–735, 1999.

John G Peters and Susan Welch. The effects of charges of corruption on voting behavior in congressional elections. *American Political Science Review*, 74(3):697–708, 1980.

Alessandro Pizzorno. *Il potere dei giudici: Stato democratico e controllo della virtù*. Laterza, 1998.

Alberto Predieri. *La produzione legislativa*. Edizioni Scientifiche Italiane, 1963.

Robert Presthus. Authority in organizations. *Public Administration Review*, 1960.

Diego Puga. European regional policies in light of recent location theories. *Journal of Economic Geography*, 2(4):373–406, 2002.

Thomas F Remington and Steven S Smith. Political goals, institutional context, and the choice of an electoral system: the Russian parliamentary election law. *American Journal of Political Science*, pages 1253–1279, 1996.

Repubblica. Findomestic: "Gli italiani preferiscono essere disoccupati che vivere lontani da casa". `https://www.repubblica.it/economia/miojob/lavoro/2017/09/30/news/lavoro_findomestic_vicino_casa-176929460/`, 2017.

Andrew Reynolds. Women in the legislatures and executives of the world: knocking at the highest glass ceiling. *World Politics*, 51(4):547–572, 1999.

Norma M Riccucci and Gregg G Van Ryzin. Representative bureaucracy: a lever to enhance social equity, coproduction, and democracy. *Public Administration Review*, 77(1):21–30, 2017.

Andrew Roberts, Jason Seawright, and Jennifer Cyr. Do electoral laws affect women's representation? *Comparative Political Studies*, 46(12):1555–1581, 2013.

Susan Rose-Ackerman and Bonnie J Palifka. *Corruption and government: causes, consequences, and reform*. Cambridge University Press, 2016.

Frances Rosenbluth, Rob Salmond, and Michael F Thies. Welfare works: explaining female legislative representation. *Politics & Gender*, 2(2):165–192, 2006.

Wilma Rule. Why women don't run: the critical contextual factors in women's legislative recruitment. *Western Political Quarterly*, 34(1):60–77, 1981.

Wilma Rule. Electoral systems, contextual factors and women's opportunity for election to parliament in twenty-three democracies. *Western Political Quarterly*, 40(3):477–498, 1987.

Wilma Rule. Women's underrepresentation and electoral systems. *Political Science & Politics*, 27(4):689–692, 1994.

Wilma Rule and Matthew Shugart. The preference vote and the election of women. *Voting and Democracy Report*, 1995.

Wilma Rule and Joseph Francis Zimmerman. *Electoral systems in comparative perspective: their impact on women and minorities*. Number 338. Greenwood Publishing Group, 1994.

Rob Salmond. Proportional representation and female parliamentarians. *Legislative Studies Quarterly*, 31(2):175–204, 2006.

Kira Sanbonmatsu. *Where women run: gender and party in the American states*. University of Michigan Press, 2010.

Salvatore Sberna and Alberto Vannucci. "It's the politics, stupid!". The politicization of anti-corruption in Italy. *Crime, law and social change*, 60(5):565–593, 2013.

Gregory D Schmidt. The election of women in list PR systems: testing the conventional wisdom. *Electoral Studies*, 28(2):190–203, 2009.

Leslie A Schwindt-Bayer. Making quotas work: the effect of gender quota laws on the election of women. *Legislative studies quarterly*, 34(1):5–28, 2009.

Jennifer L Selin. What makes an agency independent? *American Journal of Political Science*, 59(4):971–987, 2015.

Charles Seymour. *Electoral reform in England and Wales: the development and operation of the parliamentary franchise, 1832-1885*, volume 3. Yale University Press, 1915.

Matthew Soberg Shugart. Minorities represented and unrepresented. In Wilma Rule and Joseph Francis Zimmerman, editors, *Electoral systems in comparative perspective: Their impact on women and minorities*, pages 31–44. Greenwood Publishing Group, Westport, CT, 1994.

Matthew Søberg Shugart, Melody Ellis Valdini, and Kati Suominen. Looking for locals: voter information demands and personal vote-earning attributes of legislators under proportional representation. *American Journal of Political Science*, 49(2):437–449, 2005.

Herbert A Simon. Authority. In Conrad M Arensberg et al., editor, *Research in Industrial Human Relations: A Critical Appraisal*, chapter 7, pages 103–118. Harper and Row, New York, 1957.

Michael F Stoffel. A unified scale of electoral incentives. *Representation*, 50(1):55–67, 2014.

Susan C Stokes. Perverse accountability: a formal model of machine politics with evidence from Argentina. *American Political Science Review*, 99(3):315–325, 2005.

Susan C Stokes, Thad Dunning, Marcelo Nazareno, and Valeria Brusco. *Brokers, voters, and clientelism: the puzzle of distributive politics*. Cambridge University Press, 2013.

Thomas Stratmann and Martin Baur. Plurality rule, proportional representation, and the German Bundestag: how incentives to pork-barrel differ across electoral systems. *American Journal of Political Science*, pages 506–514, 2002.

Hung-En Sung. Fairer sex or fairer system? Gender and corruption revisited. *Social Forces*, 82(2):703–723, 2003.

James H Svara. The myth of the dichotomy: complementarity of politics and administration in the past and future of public administration. *Public Administration Review*, 61(2):176–183, 2001.

Anand Swamy, Stephen Knack, Young Lee, and Omar Azfar. Gender and corruption. *Journal of Development Economics*, 64(1):25–55, 2001.

Henri Tajfel. Social psychology of intergroup relations. *Annual Review of Psychology*, 33(1): 1–39, 1982.

Peter James Taylor and Ronald John Johnston. *Geography of elections*. Croom Helm London, 1979.

Frank C Thames. Understanding the impact of electoral systems on women's representation. *Politics & Gender*, 13(3):379–404, 2017.

The Economist Intelligence Unit. Democracy index 2017: free speech under attack. `http://pages.eiu.com/rs/753-RIQ-438/images/Democracy_Index_2017.pdf?mkt_tok=eyJpIjoiWkRKbU1HWmxNVEUwTW1FdyIsInQiOiJPdlltVFVOblFRQzZNVERCZHhVeitZRElmUGplOHh3NWs1d` 2017.

Caroline J Tolbert, Daniel A Smith, and John C Green. Strategic voting and legislative redistricting reform: district and statewide representational winners and losers. *Political Research Quarterly*, 62(1):92–109, 2009.

Gordon Tullock. *The politics of bureaucracy*. Public Affairs Pr, 1965.

UN DESA. Public-private partnerships and the 2030 agenda for sustainable development: fit for purpose? `http://www.un.org/esa/desa/papers/2016/wp148_2016.pdf`, 2016. Online: accessed 22 March 2018.

Melody Ellis Valdini. Electoral institutions and the manifestation of bias: the effect of the personal vote on the representation of women. *Politics & Gender*, 9(1):76–92, 2013.

Osvaldo Vallejos Ruiz. The Miravalles geothermal system, Costa Rica. `https://orkustofnun.is/gogn/unu-gtp-sc/UNU-GTP-SC-16-32.pdf`, 2018. Online: accessed 26 July 2018.

Caroline Van Rijckeghem and Beatrice Weder. Bureaucratic corruption and the rate of temptation: do wages in the civil service affect corruption, and by how much? *Journal of development economics*, 65(2):307–331, 2001.

Alberto Vannucci. The controversial legacy of 'Mani Pulite': a critical analysis of Italian corruption and anti-corruption policies. *Bulletin of Italian politics*, 1(2):233–64, 2009.

Richard Vengroff, Zsolt Nyiri, and Melissa Fugiero. Electoral system and gender representation in sub-national legislatures: is there a national—sub-national gender gap? *Political Research Quarterly*, 56(2):163–173, 2003.

Ana Catalano Weeks and Lisa Baldez. Quotas and qualifications: the impact of gender quota laws on the qualifications of legislators in the Italian parliament. *European Political Science Review*, 7(1):119–144, 2015.

Shang-Jin Wei. How taxing is corruption on international investors? *Review of economics and statistics*, 82(1):1–11, 2000.

Barry R Weingast, Kenneth A Shepsle, and Christopher Johnsen. The political economy of benefits and costs: a neoclassical approach to distributive politics. *Journal of Political Economy*, 89(4):642–664, 1981.

Susan Welch and John R Hibbing. The effects of charges of corruption on voting behavior in congressional elections, 1982-1990. *The Journal of Politics*, 59(1):226–239, 1997.

Susan Welch and Donley T Studlar. Multi-member districts and the representation of women: evidence from Britain and the United States. *The Journal of Politics*, 52(2):391–412, 1990.

Andrew B Whitford. Decentralization and political control of the bureaucracy. *Journal of Theoretical Politics*, 14(2):167–193, 2002.

Martin J Williams. The political economy of unfinished development projects: Corruption, clientelism, or collective choice? *American Political Science Review*, 111(4):705–723, 2017.

Justin Wolfers et al. *Are voters rational?: evidence from gubernatorial elections*. Graduate School of Business, Stanford University, 2002.

World Bank. Safe, clean, and affordable... transport for development: the World Bank group's transport business strategy 2008-2012. `http://siteresources.worldbank.org/INTTRANSPORT/Resources/336291-1211381200616/Transport_Business_Strategy_web.pdf`, 2008. Online: accessed 21 March 2018.

World Bank. Government objectives: benefits and risks of PPPs. `http://ppp.worldbank.org/public-private-partnership/overview/ppp-objectives`, 2016. Online: accessed 23 March 2018.

World Bank. Combating corruption. `http://www.worldbank.org/en/topic/governance/brief/anti-corruption`, 2018a.

World Bank. World bank open data. `https://data.worldbank.org/`, 2018b. Online: accessed 25 July 2018.

Mr Etienne B Yehoue, Mona Hammami, and Jean-François Ruhashyankiko. *Determinants of public-private partnerships in infrastructure*. Number 6-99. International Monetary Fund, 2006.

Mi Yung Yoon. Explaining women's legislative representation in Sub-Saharan Africa. *Legislative Studies Quarterly*, 29(3):447–468, 2004.

Alan S Zuckerman. *The politics of faction: Christian Democractic rule in Italy*. Yale University Press, 1979.