

Research Statement

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My fields of research are Political Economy and Applied Theory. Within these fields I study the interaction between political and economic institutions and how this interaction affects behavior both at the individual and at the social group level. More specifically, my research covers the following topics: 1) the effect of political uncertainty on the adoption of redistributive policies; 2) the incentives of political parties in selecting competent politicians in economically and politically competitive environments; 3) social learning in political games; 4) the endogenous formation of citizen associations; 5) the analysis of direct democracy institutions within a group-turnout theoretical framework.

1 Political Uncertainty and Redistribution

Political uncertainty is a pervasive phenomenon which is inherent to the political process. It naturally arises because different candidates running for office, if elected, will implement different policies, and election results are uncertain. Furthermore, even after a candidate is elected, there might still be uncertainty about the likelihood that he will be able to implement his electoral promises. A largely unexplored issue in the literature is whether citizens reaction to policy uncertainty plays any role in understanding the relationship between income distribution and the likelihood of adopting redistributive policies. In **Policy Uncertainty, Electoral Securities and Redistribution** [9], I investigate how uncertainty about the adoption of a redistribution policy affects political support for redistribution when relatively rich individuals can trade policy contingent securities in the stock market.

I show that in equilibrium the support for redistribution is always smaller than in the case where such a “policy-insurance market” is not available. Consistent with the empirical evidence, the analysis implies that in economies with well-developed financial markets the level of redistribution decreases with the level of participation in these markets and with income inequality. I show that the existence of a policy insurance market may lead to a less equal equilibrium distribution of income than in the case where no insurance is available even if a majority of individuals are redistributing resources through private transfers. In light of these theoretical findings, a natural question to ask is whether policy-insurance markets exist. In **Can We Insure against Political Uncertainty? Evidence from the U.S. Stock Market** [10], I show that existing stocks which are currently traded in the U.S. stock market can be used to hedge political uncertainty. Focusing on the 2000 U.S. Presidential election, I construct two “presidential portfolios” composed of selected stocks anticipated to fare differently under a Bush versus a Gore presidency. To construct these portfolios I use data on campaign contributions by publicly traded corporations and identify the major contributors on each side. Using daily observations for the six months before the election took place I show that the excess returns of these portfolios with respect to overall market movements are significantly related to changes in electoral polls.¹ My method of constructing political portfolios has been replicated by several authors on different elections and countries other than U.S. obtaining similar results.

2 Political Parties and the Endogenous Selection of Politicians

“The Industrial Organization of the Political Sector: Politicians and Parties” is a large project that was supported by a three years NSF grant awarded in the summer of 2006. The idea behind this project is simple but powerful: the very existence and functioning of representative democracy, where citizens delegate policy-making to elected representatives,

¹This paper has received press coverage from *Business Week*.

hinge on the presence of a political sector, in which voters, parties and politicians represent the counterparts of consumers, firms and managers in the market sector. The extent to which individual endowments of “political” and “market” skills are correlated, or experience in the political sector is also valuable in the market sector, links the “labor markets” in the two sectors. This link affects the selection of politicians, the politicians’ careers, and the relationship between parties and voters. This research sheds light on the following important questions: What is the role played by parties and by voters in the selection of politicians? How do monetary incentives affect the quality of politicians and their career paths? Do political systems differ with respect to the incentives for becoming politicians and returns to political experience?

In **Political Careers or Career Politicians?** [12] we develop a dynamic equilibrium model that is consistent with two empirical facts: a significant fraction of the members of the U.S. Congress leave office voluntarily and become employed in the private sector; politicians who leave office voluntarily to another occupation tend to have successful careers in the private sector. In the model, individuals have different market ability as well as different political skills, and a political party may nominate a candidate subject to the voters approval. We show that in equilibrium two main career paths emerge: there are career politicians (i.e., politicians who work in the political sector until retirement), and political careers (i.e., there are politicians who leave politics before retirement and work in the private sector). In equilibrium, not everybody who would want to become a politician does so. In particular, the party prevents individuals with low political skills from becoming politicians. Individuals with relatively high political skills have a career in politics, and individuals who are relatively better politicians may leave politics to work in the market sector. An increase in the salary a politician receives while in office decreases the average quality of individuals who become politicians, decreases turnover in office (i.e., the proportion of politicians who have political careers), and may either decrease or increase the average quality of career politicians. In **The Transparency of Politics and the Quality of Politicians** [13] we

show that, as long as the political process through which the party recruits new members is not perfectly transparent (i.e., other sectors of the economy that value political skills cannot perfectly infer the ability of a potential recruit from the party's recruiting decision), an increase in the transparency of the political process reduces in equilibrium the average quality of politicians.

Since political recruitment is an important activity parties engage in, and its outcome affects the pool of potential candidates running for election, in **Mediocracy** [11] we develop a theoretical framework to investigate the (endogenous) quality of the set of individuals who are recruited by two competing parties. In our model individuals seeking office are heterogeneous with respect to their marginal cost of exerting effort in politics, which is observable by parties. Our model uncovers the fact that in countries with a strong party system an individual may be valuable for the political party for two reasons.² First, parties are long-lasting organizations that need “workers”. In this respect an individual provides an essential service for the party by performing costly activities as a party member (e.g., raising funds on behalf of the party or devoting effort to membership drives). Second, the existence of parties hinges on the support of voters, and the political ability of electoral candidates determines parties' electoral performance. Hence, when choosing who to recruit, the party is interested in both total effort of its members (which typically depends on how homogeneous party members are) and on its electoral prospects (which typically depends on the ability of the best party member).³ Within this framework, we show under what conditions parties may deliberately choose to recruit only mediocre politicians, in spite of the fact that they could recruit better individuals who would like to become politicians. This phenomenon is more likely to occur in proportional rather than in majoritarian electoral systems because a

²The role of party service as an essential qualification for pursuing a political career is especially important in countries with a strong party system, such as Australia, Germany, Italy, Japan, the Netherlands, Sweden, and the U.K.

³In the model parties' recruits exert costly effort that benefits the party, and the politician who exerts the highest effort is selected to be the party's electoral candidate. In the election phase the two candidates compete by exerting costly effort in the form of campaign activities, which affect the electoral outcome depending on the electoral system. We model both effort contests as all-pay contests.

majoritarian election is fundamentally more competitive than a proportional election given its winner-takes-all nature.

While in **Mediocracy** [11] we examine how the electoral system shapes parties' incentives in recruiting individuals, in other works we focus on the effect of alternative electoral systems on the number of candidates contesting the election and their investment in persuasive campaign advertising. In **On the Nature of Competition in Alternative Electoral Systems** [7], we argue that the number of candidates running for public office, their ideological differentiation, and the intensity of persuasive campaign competition are all naturally intertwined, and jointly determined in response to the incentives provided by the electoral system. We propose a simple general equilibrium model that integrates these elements in a unitary framework, and provide a comparison between majoritarian and proportional electoral systems. First, we show that majoritarian elections induce candidates to campaign more aggressively than proportional elections. Second, we show that in all equilibria in which candidates are ideologically differentiated, the number of candidates running for office is larger in proportional than in majoritarian, where exactly two candidates run. Third, we show that while electoral equilibrium in proportional elections restricts the minimum and maximum degree of differentiation between candidates, this is not the case in majoritarian elections, where both full centrism and complete polarization are possible. Using the same theoretical framework we study more in details proportional electoral systems in **Many Enemies, Much Honor? On the Competitiveness of Elections in Proportional Representation Systems** [6] and in the work in progress **Competitive Forces and Electoral Institutions in Proportional Representation Systems** [8].

Finally, in **The Labor Market of Italian Politicians** [2], we empirically analyze the career profiles of Italian legislators in the post-war period. Using a unique, newly collected dataset that contains detailed information on all the politicians who have been elected to the Italian Parliament between 1948 and 2008 and their careers in and out

politics, we document the extent to which the characteristics of Italian legislators (such as demographics and income prior to entering the Parliament) have changed over time and highlight the major differences between the First and the Second Republic (that were characterized by different electoral systems). To provide a term of comparison, we also contrast the profiles of Italian legislators to those of the members of the United States Congress.

3 Social Learning in Political Games

Individuals typically exchange information with other individuals they are in contact with. Hence, the interpersonal network of people, i.e. the social context, is likely to affect individuals choices. An interesting question is whether the social context has any effect on individuals political choices. In “An Economic Theory of Democracy”, Downs pointed out that “rational citizens will seek to obtain their free political information from other persons if they can,” and the Columbia Research Agenda stressed the importance of face-to-face interaction as opposed to media exposure in obtaining political information and affecting voting choice. Recent empirical works show that the role of the interpersonal network of people as a way to gather political information has increased its importance. In **Personal Influence: Social Context and Political Competition** [3], we study the effect of social learning on political outcomes in a model of informative campaign advertising. We find that communication networks among voters have important effects on parties incentives to disclose political information, on voters learning about candidates running for office, and on the polarization of the electoral outcome. In particular, in richer communication networks parties disclose less political information and voters are more likely to possess erroneous beliefs about the characteristics of the candidates running for office. In turn, a richer communication network among voters may lead to political polarization. These results are reinforced when interpersonal communication occurs more frequently among ideologically homogeneous individuals (homophily) and parties can target political advertising to spe-

cific groups of voters. We are currently extending and generalizing this framework in the work in progress **Social Learning in Political Games** [4]. In this paper we show that in the presence of strategic communication among voters, the degree of homophily and the extent to which political advertising can be targeted jointly determine the equilibrium effect of social learning. In particular, when political advertising can be targeted, the more individuals belong to a relatively segregated group, the higher is the probability that they will support extreme political positions.

4 Voluntary Group Formation

The National Association Study shows the mean and median membership size of US voluntary associations are 27,575 and 750, respectively, suggesting that, although not many, very large associations exist (e.g., NWF, Sierra Club, or trade unions). The main activity of these associations is lobbying for public policy, and their financial resources mostly derive from due-paying members. Since the benefits of lobbying are largely non-excludable to non-members, all these groups are able to overcome a potentially severe free-rider problem. In this context several natural questions arise: Why do people pay fees to join large associations that provide public goods, if potential members number in the thousands? What membership fee maximizes group size? Is it true that heterogeneity in the population of prospective members hampers participation? If so, why do many organizations endogenously induce heterogeneity with the practice of reserving special “seniority” benefits for returning members? In **Membership in Citizen Groups** [1], we address these questions by modeling the formation of a group that uses membership contributions to provide a discrete public good and excludable selective benefits for its members. In particular, we analyze the coordination problem of prospective members when excludable benefits and public good are jointly produced. In this case the size of the association, which is related to the success in providing the public good, may affect the value that individuals attach to selective benefits. In a game theoretic framework, we show that in the unique equilibrium

of the membership game, there is a unique level of the membership fee that maximizes the expected size of the group. In a static model, membership decreases when heterogeneity in agents willingness to pay increases. On the contrary, in a two-period setting where seniority of membership entails preferred status, (endogenous) heterogeneity increases group size, even if the average willingness to pay of junior and senior members is held constant.

5 The Role of Turnout Requirements in Direct Democracy

Direct democracy is firmly established in many democratic countries, and the use and scope of direct democracy institutions are increasing all around the world. In many countries and in some US states (e.g., Massachusetts, Mississippi, Nebraska, and Wyoming) referenda have to meet certain turnout requirements in order to be valid. Typically, the status quo can be overturned only if a majority of voters is in favor of it, and the turnout reaches a certain level, that is a “participation quorum” is met. In some cases an “approval quorum” is required, i.e., the turnout of the majority that is against the status quo has to reach a certain level. In **Quorum and Turnout in Referenda** [5], we analyze the effect of turnout requirements in referenda in the context of a simple game theoretic model of group turnout. We show that a participation quorum requirement may reduce the turnout so severely that it generates a quorum paradox: in equilibrium, the expected turnout exceeds the participation quorum only if this requirement is not imposed. Moreover, a participation quorum does not necessarily imply a bias for the status quo issue. We also show that in order to induce a given expected turnout, the participation quorum should be set at a level that is lower than half the target. The effect of a participation quorum on welfare is ambiguous. On the one hand, it decreases voters’ welfare by misrepresenting the will of the majority. On the other hand, it might also reduce the total cost of voting.

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