An Economic Theory of Constitutional Choice

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There is now a wide consensus among economists, political scientists and policy makers that institutions play a role in fiscal policy outcomes and economic growth. What is still unclear, or there is less consensus about, is which institutions or cluster of institutions matter most and how. Also partly unanswered, in light of the recognition that institutions are not "neutral" in terms of their economic consequences, is why societies that are remarkably similar in terms of many economic and political fundamentals (e.g. advanced industrial democracy) choose very different political institutions, including electoral laws and forms of government. In the following, we discuss why and how economic variables can affect the choice of political institutions and, in particular, the choice of a democratic constitution.

Our approach is innovative relative to the political science literature, which has traditionally treated political institutions as exogenous and predetermined by historical and cultural factors. But our emphasis on the endogeneity of constitutions is also relatively unusual for the political economy of public finance. In recent years, scholars working in this field have made a large effort in trying to quantify the effects of various political institutions on economic variables, but usually relying on the implicit or explicit premise of regarding institutions as exogenously given.

Classifying democratic constitutions

Democratic constitutions differ in many different dimensions, and there are numerous features that are important in shaping economic outcomes. A classification of democracies that has received a large consensus in the political science literature and that we have adopted in our research is the one introduced by Arend Lijphart (Lijphart 1977), who distinguishes between majoritarian and consensual democracies. The model of majoritarian democracy, or the Westminster model, is characterized by the fact that political power tends to be concentrated in the hands of a limited number of individuals. In consensual democracies, political power is instead widely shared and dispersed. There are various institutional characteristics distinguishing the two democratic models, but the most important difference is probably the electoral system. This is majoritarian (plurality rule or first-past-the-post) in majoritarian democracies and proportional in consensual democracies. There are two other important features that distinguish these democratic systems and that are related to the electoral law. One is the executive-legislative relation. In majoritarian democracies, there is the dominance of the executive over the legislative power, while the power of these two political bodies is more balanced in the consensual model. The other feature has to do with the composition of government. Majoritarian electoral rules generally lead to the formation of a two-party system and the leader of the largest party is also the prime minister. In consensual democracies, by contrast, the proportional electoral law favors the formation of a multi-party system, and governments are generally the expression of coalitions between more parties with the consequence that a greater variety of interests is represented. Among developed countries, the UK is probably the most representative example of majoritarian democracy, while the consensual model of democracy is best represented by some Scandinavian and Northern European countries. Many important institutional elements of the consensual model are also shared by several other countries of Continental Europe however.

There are three points that are worth emphasizing. First, we need to clarify that the electoral rules are generally not part of the written constitution. Nevertheless, as we can also see from the title of this

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"Forum", it is common (or natural) in the academic debate to consider the electoral system part of the constitution of a country. The reason for this is well explained by Myerson (1999, 672), who argues that "Although many countries establish the electoral systems by organic law outside their formal written constitution, we consider the electoral system here to be part of the constitutional structure, because it is an essential element in the rules of the political game that politicians must play to win power."

Second, there are various elements that characterize an electoral system. The literature has emphasized three dimensions that are particularly important: the district magnitude, the electoral formula and the ballot structure. The *district magnitude* determines the fraction of the legislature elected in a typical voting district. The *electoral formula* defines how votes are translated into seats. Under proportional representation (PR) the number of seats obtained by a party is proportional to the total votes in each voting district, while under majoritarian rule the elected representative in each district is the one that has obtained the largest share of votes. The *ballot structure* defines how voters cast their ballot in the range from single individuals to party lists. While these characteristics are theoretically distinct, they are highly correlated in practice. Majoritarian electoral systems generally have voting for individual candidates in single-member districts. Proportional electoral rules are instead characterized by a system of party lists in large districts.

Third, another key feature of the constitution is the form of government that, similarly to the electoral system, is characterized by various dimensions. The distinction is generally made between parliamentary and presidential regimes. In parliamentary systems, the government is appointed by the elected assembly and can therefore be dismissed by a vote of nonconfidence. In presidential regimes, the president is elected directly by citizens and he chooses the executive that do not need the confidence of the parliament. Lijphart (1999) and Linz (1994) argue that presidential governments as such are inherently an expression of majoritarian democracy as presidential elections are winner-takes-all in nature and all the executive power is concentrated in the hands of one single person. This is a point that we will discuss at greater length below.

The effects of electoral rules and other constitutional features on fiscal policy outcomes have been studied extensively in the economic and political science literature. Some examples include, among many others, Lijphart (1977, 1999), Austen-Smith and Banks (1988), Myerson (1993, 1999), Persson and Tabellini (1999, 2000), Persson, Roland and Tabellini (1997, 2000), Austen-Smith (2000), Lizzeri and Persico (2001) and Milesi-Ferretti, Perotti and Rostagno (2002). These papers find that proportional electoral systems should be associated with the provision of more public goods, larger and more universalistic welfare programs, and a larger overall size of government. The results are similar for presidential regimes that should have less provision of public goods and a smaller size of government than parliamentary systems.

The analysis of the economic effects of constitutions has taken the constitution as *given*. But if constitutional provisions affect fiscal policy outcomes, and therefore the welfare of citizens, then citizens will have preferences over these institutions and will vote accordingly when the constitution is chosen. In other words, constitutions should be regarded as *endogenous*. Our research presented in the paper "Endogenous Constitutions" (2005a, first draft in 2002), makes exactly this point by linking the constitutional choice to the distribution of income of the society. Our argument can be summarized as follows. As we said, the theoretical and empirical literature finds that various constitutional features shape fiscal policies. We know that fiscal policies in turn affect, over time, the distribution of income. This implies that the constitution is an important determinant of income inequality. But then, should not we expect that income inequality itself affects the selection of the constitution? In our paper, we pose and address precisely this question, and show why and how income inequality can be a determinant of the constitution adopted. In particular, the main result of our economic theory of constitutional choice is that a majoritarian constitution is more likely to be chosen when the degree of income inequality is relatively high, while consensual democracy is more likely to be adopted by relatively more homogeneous societies.

A new approach for explaining constitutional choice

In Ticchi and Vindigni (2005a), we present a model with three groups of individuals that differ in their pre-tax income level and that we define as the rich, the middle class and the poor. There are three group-specific public goods, i.e. each class has its own preferred public good and does not derive utility from the public good preferred by the other classes. The public goods are provided by the government that finances them with a flat tax rate. This allows the group(s) in power to target the redistribution to its (their) advantage. Individuals in each class are perfectly homogenous, no one group has an absolute majority and the middle class is the largest group. We have also used the citizen-candidate framework, where politicians cannot make a credible commitment to implement policies different from their preferred one once elected.

We model majoritarian democracy as a system where fiscal policy is chosen by a leader elected directly by the people from a list of citizen-candidates participating in the election with a majoritarian electoral system. We think this model accurately represents parliamentary systems with a majoritarian electoral rule as well as presidential regimes characterized by relatively powerful presidents. In the first case, assuming the existence of a parliament whose members are elected in single-candidate districts, as in the UK, this would lead to the same political equilibrium as long as the distribution of agents across districts is similar to that of the whole country. In the case of presidential regimes, there are two possibilities. One is where the legislative assembly is elected with a majoritarian electoral law as in the US. Given that president and assembly are elected with the same electoral rule, they should be expected to have similar fiscal policy preferences. Therefore, independently of the relative power of the two bodies, these democracies are clearly majoritarian. If instead the legislative assembly is elected with a proportional electoral system, then understanding the powers of the president becomes important for classifying the democracy as majoritarian or consensual. The typical example of presidential regimes with PR are the Latin American countries. These countries are generally characterized by a relatively powerful president that plays a very important role in the legislative process, and that is often also in a dominant position with respect to the legislature. In this case, as argued by Lijphart and Linz, these countries are examples of majoritarian democracies. In an extension of our model (Ticchi and Vindigni 2005b), we show that the equilibrium obtained in our model of majoritarian democracy is very close to one generated by an institutional framework where fiscal policy is the outcome of bargaining between a president and an assembly elected with PR. In other words, our finding is that what matters for fiscal policy outcomes in presidential regimes with PR is the (majoritarian) electoral law employed in the presidential election.

The result of our model of majoritarian democracy is that the winner is a rich citizen-candidate and, therefore, that the fiscal policy implemented is relatively conservative. The idea behind this result is that each candidate will implement her preferred policy once elected, as there is no possibility of making credible commitments. The rich, have an advantage over the other two groups, and will get elected, because their optimal fiscal policy is characterized by the lowest taxation. This makes possible that in two-candidate contests between the rich and another group, the rich always win. In other words, in a majoritarian democracy the rich enjoy an advantage over the other classes as a result of the interaction of their relative fiscal conservatism and the majoritarian electoral law.

As mentioned above, consensual democracies are characterized by coalition governments that are the outcome of a legislative bargaining process among the members of a parliament appointed with a proportional electoral law. In our model, we obtain the result that government coalitions depend on the distribution of income. If income inequality is low, the government will be composed of a coalition between the middle class and the poor (center-left) while the coalition will be between the middle class and the rich (center-right) when income inequality is relatively high. The explanation for this result is that when inequality is high and there are a lot of poor people, they are relatively strong, and the middle class will have to develop a policy that favors the poor if it wants this class to accept a coalition government offer. Hence, the middle class will prefer a coalition with the rich who are "cheaper to buy" because they are weaker and fear that the poor will gain more power. The opposite occurs when income inequality is low.

We also obtain the result that a government coalition between the middle class and the poor taxes and redistributes more than a coalition between the middle class and the rich, which in turn sets higher taxes than a government comprising the rich only (i.e. the tax rate set in majoritarian democracy). These results are in line with the findings of the empirical literature and with the results of other theoretical models. The mechanism leading to this conclusion is completely new, however. In the traditional literature, consensual democracies tax and spend more than majoritarian ones because of the common pool problem that characterizes coalition governments. In our work, there is no common pool and, other things being equal, a government coalition should tax and spend *less* than a single party government. The reason is that the higher the number of parties in the government the lower is the amount for each unit of taxation that each party appropriates through the provision of the group-specific public good. However, in our model there is another effect moving in the opposite direction. The classes in power in a consensual democracy (middle class-poor or middle class-rich) are on average poorer than the class (rich) in power in majoritarian democracy. A minimum degree of income inequality is enough for this latter effect to dominate over the former.

When individuals choose the constitution, they will consider their welfare under the two different constitutional frameworks and will vote accordingly. Notice that we assume that individuals do not choose institutions behind a Rawlsian veil of ignorance, but are fully informed of both their preferences and their economic status. We regard this assumption as much more plausible, since in practice the framers of constitutions are always concrete individuals who are well aware of their own status and interests. The result we obtain is that a society with a relatively high income inequality prefers a majoritarian constitution, while consensual democracy is chosen when there is less inequality. In fact, the rich always prefer the majoritarian system because they are always in power, and the middle class always prefers the consensual model because they are always part of the government coalition and the poor end up being the swing voters. When there is a low level of inequality in income distribution, they prefer a consensual democracy because they will be part of the government coalition. When inequality is higher, the poor prefer the majoritarian system as they know that in consensual democracy they would not be part of the ruling coalition, and this means that they would pay higher taxes without receiving their preferred public good.

Our economic theory of constitutional choice has also three interesting results. First, it helps explain the *persistency* of constitutions. High inequality leads to the choice of a majoritarian constitution which limits the amount of income redistribution. This leaves inequality high and the society will continue to prefer a majoritarian institutional setting. The opposite happens when income inequality is low. Second, there is a *selection bias* in the composition of the government coalitions. Consensual democracies should be expected to be ruled more often by center-left coalitions, more willing to tax and redistribute income, while the more fiscally conservative right should have an advantage under majoritarian constitutions. Third, the relationship between income inequality and redistribution obtained by our theory is not as positive as suggested by the median voter theorem. In particular, this can be absent or negative as inequality not only affects fiscal policy in a nonlinear way for a given constitution, but it also influences the choice of the constitution itself with more inequality favoring the choice of the constitution (the majoritarian one) that leads to lower income redistribution. This result is consistent with the existing empirical evidence (e.g., Perotti 1996) that, contrary to what is predicted by the median voter theorem, finds a negative or no relationship between income redistribution and income inequality.

Empirical tests

The predictions of our theory of constitutional choice regarding fiscal policy outcomes are consistent with the theoretical and empirical findings in the literature. However, the main and new result of our model is that constitutions are endogenous and that more income inequality should favor the adoption of a majoritarian constitution. But, is there evidence supporting our theory? To answer this question, we have addressed the problem from an econometric and a historical point of view.[1]

The main problem in an econometric analysis that tries to estimate the effect of income inequality on the probability of adopting a certain constitution is that inequality is endogenous, as it depends on the constitution itself. The endogeneity issue is also problematic because there does not seem to be (at least we were not able to find one!) a valid instrument for the inequality of income distribution in our framework. To avoid problems of endogeneity, we have therefore tested our theory by analyzing the relationship between the type of constitution adopted and the income inequality of the country *at the time, or before, the adoption of the current constitution*. This test was performed through a cross-sectional analysis because, as predicted by our model, constitutional reforms are rare events, and there are not enough changes in constitutions to allow us to perform a panel data analysis.[2]

[1] For reasons of brevity, we do not discuss the historical evidence; the reader may find it in Ticchi and Vindigni (2005a).
[2] This problem becomes even more severe when the availability of income inequality data is taken into account.

We have constructed our dataset starting from that one compiled by Persson and Tabellini (2003) to analyze the economic effects of constitutions. This dataset contains 85 countries selected on the base that they can be classified as free or partly free democracies for the period 1990–98. As a measure of income inequality, we have used the Gini index extracted from the dataset compiled by Deininger and Squire (1996).

Finally we have obtained a sample of 57 democracies and a sub-sample of 31 parliamentary democracies. In the sample of parliamentary democracies, majoritarian systems have an average inequality of 10 points higher than consensual ones and this difference is statistically significant at the 1 percent level.[3] The unconditional correlation between the Gini coefficient and a majoritarian electoral system is 0.485. The results of logit regressions, where we condition the relationship between income inequality and the type of constitution for different variables that may potentially affect the choice of the constitution, show that an increase of one point in the Gini coefficient increases the probability of adopting a majoritarian system by 3 percent. The results are similar when we consider the whole sample. The obtained estimates are large numbers, suggesting that the impact of income inequality on the choice of constitution has not only the sign predicted by our theory but it is also quantitatively important.

Summary and open questions

In sum the conclusion of our theoretical and empirical work is that income inequality is a determinant of the constitution of a country. This has important implications for any empirical analysis that aims at estimating the effect of constitutional features on economic outcomes. In fact, most works that attempt to do this (based on cross-country analysis because, as we said before, constitutional reforms are rare) do not take into consideration that the selection of a certain constitution is not random (as our theory shows). Countries with a different constitution also differ in many other characteristics (e.g. income inequality) that affect fiscal policy outcomes. Therefore, an empirical work that does not tackle this issue obtains estimates that cannot be interpreted as the causal effect of the constitution on fiscal policy.

Persson and Tabellini (2003, 2004) is, to best of our knowledge, the only work that attempts to cope with the endogeneity issue in order to estimate causal effects of constitutional provisions, such as the electoral rules and the form of government, on fiscal policy outcomes.[4] They perform an IV estimate, using as instruments for the constitution selection, three constitutional dating variables, two language indicators and latitude, while controlling for other cultural and geographic variables as ethno-linguistic fractionalization.[5] They obtain that the effect of the electoral rules and the form of government is important and in line with the findings of the empirical and theoretical literature. Acemoglu (2005) argues, however, that there are various reasons why Persson and Tabellini's identification strategy is unconvincing and concludes that their estimates can only represent robust correlations between the form of government and electoral system with various measures of economic and fiscal policy outcomes. Therefore, the effect of constitutions on economic outcomes is still an open issue.

Future research in this field will therefore have to find a way to measure the causal effects of constitutional features on economic outcomes. Our theory of constitutional choice is a contribution to this strand of literature suggesting the existence of economic fundamentals (such as income inequality) that affect fiscal policy outcomes directly, as well as indirectly through the effect on the type of constitution adopted and that, at the same time, are affected by the fiscal policies implemented. This kind of endogeneity makes the empirical analysis particularly challenging, especially because we can rely only on few cases where the constitution has been changed, but this is an effort that, we think is worth pursuing.

[3] The Gini coefficient is measured on a scale from 0 to 100.
[4] The literature that takes into consideration the endogeneity of political institutions in the empirical analysis about the effect of institutions on fiscal and economic outcomes is instead abundant.
[5] See Aghion, Alesina and Trebbi (2004) for the effects of ethnic fractionalization on political institutions.

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