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# An Overview Across the New Political Economy Literature

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This work presents a review of the literature on political process formation and the role of institutions on economic development. Models of citizen candidacy and candidate choice and equilibria under plurality rule elections are illustrated. Studies of the relation between institutional structure and paths of economic development are also reviewed.

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## **An overview across the new political economy literature**

### **Abstract**

*This work presents a review of the literature on political process formation and the role of institutions on economic development. Models of citizen candidacy and candidate choice and equilibria under plurality rule elections are illustrated. Studies of the relation between institutional structure and paths of economic development are also reviewed.*

#### *1. – Introduction*

Several new studies focus on the important role played by the politico-institutional structure of a country on the processes of economic development. Institutional structure becomes the investigational subject through which to explain the way certain countries develop or fail to develop, seeking causal relationships between politico-institutional features, types of implemented policy and outcomes in terms of growth and economic development.

The main purpose of these studies is to develop a better understanding of key factors of the politico-institutional process (e.g., institutional origins, rules, interactions between institutions) in order to analyze how specific institutional *infrastructures* modelled over the time interacting with the economy promoted the adoption of different policies and consequently have influenced growth and economic development.

These institutional differences have contributed to create widely divergent processes among countries in the world.

We need to study the institutional variables, which are in nature complex and complex are the effects exerted by institutions on economic dynamics.

I place studies of institutions and economic dynamics and effects in two main categories.

The first category contains works concentrated on the mechanisms at the basis of the formation political process. They analyze scenarios in which citizens decide whether or not to participate as candidates in electoral competition and if elected they implement policies. They evaluate whether to stand or not for election considering the benefits of being in office and the cost of candidacy. This benefit can be represented by the opportunity to get a rent or simply to apply their preferred policy. They may also commit to a specific policy or behave strategically announcing a policy during the election but once elected implement their own preferred policy. On the other hand voters decide whether to cast their vote for their preferred candidate.

In most studies in this category it is assumed that voting is costly. The introduction of a cost determines important strategic implications about the candidate and voter behaviour.

The second category of study seeks causal relationships between specific features of the political-institutional process and outcomes in terms of economic performance. The latter are generally empirical studies making use of cross-sectional data and economic indicators (e.g., GDP, Public Expenditure, etc.) for large groups of countries to test largely empirical hypotheses.

## 2. – *Evolution and insight behind the literature*

The earliest works in the first category are represented by the seminal studies of Hotelling [1929] and Downs [1957]. Both, develop interpretative models of the candidate and voter behaviour on a dimensional space formed by preferences for specific policies.

The basic structure of the Hotelling model is represented by a dimensional space in which candidates express preferences for policies and voters choose among candidates on the basis of the policies they represent. The main idea is that in a two-candidate competition, in which the voters preferences are single-peaked and symmetric and they do not behave strategically (but vote sincerely), each candidate may easily win by deviating from its own initial position by moving toward the other candidate, such that there is stability in the process and then equilibrium only if the positions of the two candidates are exactly the same.

Downs [1957] defines a political equilibrium as a state in which no new parties can successfully be formed and when no existing party is motivated to move away from its present position.

Downs [1957] builds on Hotelling's idea, showing that the conclusion for which in a two-party competition the parties for sure converge on the center is not necessarily respected. Indeed it depends on how the voters are distributed along the spatial scale. In fact, when the electorate is polarized, the two parties diverge toward the extreme rather than converging on the middle, since in this case the votes each party gains by moving toward an extreme position are more than it loses by moving away from the center.

The strongest theoretical assumption in Downs model is the prediction that candidates care only about winning and, for this reason, since they are only interested in maximizing the number of votes, they implement in the most of cases policies different from their ideal policies.

On this framework Osborne [1995] developed a model in which considers some variants of the competition political process in the presence of plurality rule elections. Osborne introduces an extension of the Hotelling model considering what happens when there is *strategic* voting. When voting is costly each voter votes only if the expected benefit from doing so is bigger than the cost,

and the expected benefit depends on the closeness of the position of the candidate to the ideal policy of the voter.

A further development of the Hotelling ideas is in Osborne and Slivinski [1996]. The model is known as endogenous candidacy model, since each citizen decides (in the presence of a cost) whether or not to enter the electoral race. Differently from the Downsian idea, the candidates care about the policy to be enacted. The main consequence of that and jointly the main result of the analysis is that candidates do not necessarily end up to the middle. They can commit to policies and so there can exist equilibria different from the one corresponding to the median.

The number of candidates in equilibrium is negatively related to the cost of participation in the electoral competition and is positively related to the benefit of being in office. In particular, Osborne and Slivinski show different scenarios of equilibrium under plurality rule elections.

In order to understand the different sets of equilibria that can emerge, we summarize the model as a polity consisting of  $N$  citizens, who have single-peaked preferences over a set of policy positions ( $R$ ) assumed by candidates. We consider  $F$  to be the distribution function of the citizen's ideal policies positions on  $R$ , which is supposed to be continuous and to have a unique median  $m$ .

Each citizen decides whether to stand or not for public office. If the citizen decides to enter the race, then he proposes his ideal position and cannot commit to a different position. All citizens simultaneously announce their decision and then voting takes place. Each citizen votes sincerely, according his ideal preference.

The preferences of voters are represented by the following utility function:

$$- |x - a|$$

where  $a$  is the ideal policy of the voter, while  $x$  is the policy implemented by the winner candidate. If a citizen enters the competition incurs a cost  $c > 0$ , and, if he wins, gets a benefit  $b > 0$ . If none stands for elections, then everybody gets a payoff of  $-\infty$ .

The most extreme case is that of one candidate equilibrium, in which the presence of a large cost works as deterrence for the entry of a higher number of candidates. Further, if  $b$  is small enough relative to  $c$ , the position of the candidate need not necessarily to be the median  $m$  of  $F$ , since the poor payoff guarantees that the candidate will run unopposed, unless the candidate has particularly extreme preferences<sup>1</sup>.

Obviously, the set of ideal points for which one-candidate equilibrium is possible shrinks as the cost of standing for election goes down.

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<sup>1</sup> Under this case, a relatively moderate candidate can have a stronger incentive to enter the competition, despite of the small payoff.

More formally, to have one-candidate equilibrium requires that  $b \leq 2c$ . In fact, if the position of the candidate coincides with the median, then another candidate with the same ideal point can enter the race with  $1/2$  probability to win, and with an expected payoff of  $1/2b - c$ . Therefore, the condition  $b \leq 2c$  is required in order to guarantee the presence of an equilibrium.

We can also represent other characterizations of one-candidate equilibrium. If  $c \leq b \leq 2c$ , the ideal position of the candidate corresponds to the median, whereas if the position of the candidate is different from  $m$ , then a citizen whose ideal policy corresponds to the median may enter and beat the other candidate, getting a payoff of  $b - c$ . For this reason in order to guarantee one-candidate equilibrium we need  $b < c$ . If this condition is respected, then the candidate's ideal position may be any position within the distance  $(c - b)/2$  of  $m$ .

The existence of two-candidate equilibria is the most interesting feature of the model since in reality many competitions are run by two candidates (this is typical of political systems opposing two big parties or coalitions), and the model allow us to catch some fascinating dynamics of the political race.

To state the equilibrium result we need to make some assumptions. Suppose there are two candidates, with ideal points  $m - \delta$  and  $m + \delta$  for some  $\delta > 0$ , so that each candidate receives half of the votes. Let  $s(\delta, F)$  be the point between  $m - \delta$  and  $m + \delta$  with the property that, if a citizen with this ideal point enters the competition, the number of votes received by the two original candidates remain equal. Formally,

$$F[1/2(m - \delta + s(\delta, F))] = 1 - F[1/2(m + \delta + s(\delta, F))].$$

If  $\delta$  is small, none with ideal point in  $(m - \delta, m + \delta)$  can enter and win, by contrast, if  $\delta$  is large enough, such citizen exists.

Now, let  $\alpha(F)$  be the critical value of  $\delta$ . Below the critical value all entrants lose the race, above the critical value all entrants win.

Then, two-candidate equilibria exist if and only if  $b \geq 2(c - \alpha(F))$ . Also, in any two-candidate equilibrium the candidate's ideal points are  $m - \delta$  and  $m + \delta$  for some  $\delta \in (0, \alpha(F)]$  and for such ideal positions the equilibrium exists if and only if  $\delta > 0$ ,  $\delta \geq c - b/2$ ,  $c \geq |m - s(\delta, F)|$ , and either  $\delta < \alpha(F)$  or  $\delta = \alpha(F) \leq 3c - b$ .

From this result it is possible to infer that, in a two-candidate equilibrium, the candidates' ideal points are neither similar nor too dispersed. In fact, if they are identical, a third candidate may enter the competition and easily win, while, if they are too dispersed, a third candidate, with ideal point strictly in between those of the two original candidates, again may enter the race and win the election.

In two-candidate equilibrium the positions are symmetric with respect to the median. If we consider two specific points on either side of the median ( $m - \delta$ ,  $m + \delta$ ), such that the votes are equally split by the two candidates, as long as strictly more than one third of the electorate supports each of the two favourite candidates, a third entrant candidate can never enter the competition and win.

The condition  $\delta \geq c - b/2$  (where  $\delta$  is the distance of the candidate's ideal point from the median) guarantees that the two candidates, with positions symmetric to the median, prefer not to exit the competition allowing the rival candidate to win outright.

If  $\delta > \varepsilon(F)$ , a citizen whose ideal point is in between the ideal points of the two original candidates, easily wins by entering the competition, and he is also better off as he obtains a positive payoff  $b - c$ . For this reason, in order to have an equilibrium, we require  $\delta < \varepsilon(F)$  since this inequality ensures that no other candidates prefer to enter the electoral race.

The condition  $c \geq |m - s(\delta, F)|$  ensures that the entry cost is high enough to deter a third citizen (sure loser), with ideal point in between the ideal points of the two original candidates, to enter the race with the sole aim to influence the identity of the winner.

The latter condition introduces the most interesting feature of the three candidate equilibrium. In fact, it is possible to have an equilibrium in which one of the three candidates (so called *spoiler*) is certain to lose but enters the competition solely because of his ability to affect the final outcome.

Specifically, in a three-candidate equilibrium we have that each candidate gets one-third of the votes and the necessary condition is  $b \geq 3c + 2|\delta_1 - \delta_2|$ . The candidates' ideal positions are all different. If we represent the candidates' ideal positions with  $a_1, a_2, a_3$ , we have that  $a_1 \leq a_2 \leq a_3$  and that  $a_1 = t_1 - \delta_1$ ,  $a_2 = t_1 + \delta_1 = t_2 - \delta_2$ , and  $a_3 = t_2 + \delta_2$  for some  $\delta_i \geq 0$ , where  $t_1 = F^{-1}(1/3)$  and  $t_2 = F^{-1}(2/3)$ .

The necessary condition guarantees that the two extreme candidates prefer to enter the competition than not standing and the same is true for the central candidate. If the two extreme candidates decide to remain out the race, in fact, the central candidate wins outright.

The conditions stated above include equilibria in which two of the candidates may share the same ideal position. In fact, if for example  $\delta_2 = 0$ , then candidates  $a_2$  and  $a_3$  share the same position<sup>2</sup>.

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<sup>2</sup> If the distribution of the ideal points is single-peaked, there is no equilibrium in which, having  $\delta_i = 0$  for some  $i$ , two candidates share the same position, as if the ideal point of one citizen is close to the ideal points of the two candidates sharing the same position, this citizen can enter the race and win outright.

Also in equilibrium, it can be that the two external candidates get the same proportion of votes, while the central candidate obtains a smaller fraction, causing him to lose for certain. In this case the necessary conditions are  $b \geq 4c$  and  $c < t_2 - t_1$ .

As already mentioned, the latter case represents the most interesting result of the three-candidate equilibrium. A third sure loser candidate enters the competition solely because doing so he guarantees an equal probability of winning between the two original candidates, as his withdrawal would make one of the two candidates (the one he least prefers) to win for certain. In this specific case, the decision undertaken by the third candidate is purely strategic.

The condition  $c < t_2 - t_1$ , ensures that the cost of entry is low enough to make the entry of a third (loser) candidate worthwhile<sup>3</sup>.

If we compare the necessary condition ( $b \geq 4c$ ) with the one requested for two-candidate equilibria ( $b \geq 2(c - g(F))$ ), we can also get the intuition that the presence of larger  $b$  respect to  $c$  encourages the existence of equilibria with larger numbers of candidates.

Besley and Coate [1997] formulate a similar version of the Osborne and Slivinski model in which they also state the existence of different candidate equilibria in a plurality vote election.

There are some specific differences in the assumptions between the two models. In particular, in the Besley and Coate framework the utility function of the voters depends not only upon the policy implemented but also upon the identity of the representative. These characterizations translate into a more general form of the expected utility payoffs of the voters.

An important difference is then represented by the lack of commitment in the Besley and Coate version that renders voting strategic. In the Osborne and Slivinski model when the candidates decide to enter the electoral competition, they announce their ideal policy and they cannot commit to a different policy since that would not be credible to voters. On the basis of announcement of policy by candidates, citizens cast their vote. In Besley and Coate model, by contrast there is no commitment *ex ante*. The candidate who wins the election implements his preferred policy and promising anything else would not be credible. Then citizens anticipate correctly the policy that would be chosen by each candidate if elected and so they vote strategically.

Despite of the differences in the assumptions, there is not substantial difference in the final result. Besley and Coate state strong conditions to guarantee one or multiple equilibria candidates in plurality rules elections on similar basis.

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<sup>3</sup> However, the necessary conditions are not sufficient. In fact, their effectiveness depends on the form of the distribution of  $F$ . For example, if the distribution of  $F$  is symmetric, if the third candidate stays out the competition, this does not entails the victory of the candidate he least prefers but the victory of the candidate he most prefers.

However, the models mentioned above have several limitations that reduce their correspondence to reality. First, they focus exclusively on the interest of the single agent and posit that actions are undertaken by each individual solely in order to maximize his own individual utility. Although this mechanism may be correct for the voter (excluding the hypothesis the voter might express his preference according to what he believes about how the decision may affect future generations), the same may be wrong from the perspective of the candidate who should represent the collective interest and act in order to optimise it.

Also absent in the models are important actors of the political environment, namely parties, interest groups and *lobbies*. All of them play an important role in the political process.

Moreover, the assumption that citizens have complete information about the preferences of candidate may, if modified, change the results drastically.

Alesina [1998] points out that parties represent different constituencies and they may want to win elections not only for the interest of getting “income, power and prestige of being in office” (the Downsian idea) but also because they can serve the interest of the constituencies they represent by implementing appropriate policies.

Another criticism is about the mechanism of endogenous candidacy. In fact, in many political environments candidacies do not simply depend upon an autonomous single agent to decide whether or not stand for election on the basis of a sort of individual cost-benefit analysis, but candidacies are chosen by parties and need a notable financial support by a wide coalition of interest (i.e. *lobbies*) in order to carry on the electoral campaign.

Bandyopadhyay and Oak [2004] shift the attention from the stark autonomous single candidate to the party coalition process. They show alternative scenarios in which the nature of the coalitions that emerge in equilibrium rely on the importance assigned by the party to their ideology relative to the value assigned to the rents perceived from being in office.

So far there have been few attempts of systematization of the recent development in political economics. However, Persson and Tabellini [2002] represents an excellent effort in this direction. They not only revise the literature on electoral competition, on the role of constitutions and on political regimes, but also do introduce macroeconomic issues, by using formalized approaches.

They formalize a model in which a comparison between the presidential-congressional regime (that can be viewed as an expression of the U.S. political system) and the parliamentary regime (typical of most European countries) is made, and show how the two political systems are associated with different policy choices and different policy outcomes.

To the second category of studies belongs the empirical work of Persson and Tabellini [2004], who estimate the effect on the amount and redistribution of public government spending of (a)



different electoral systems, i.e. majoritarian against proportional elections, and (b) the constitutional form of government, i.e. presidential against parliamentary regimes.

Their study is based on a recent line of theoretical research, according to which parliamentary governments combined with proportional electoral system are more oriented toward a higher government spending and broader welfare programs.

These predictions rely on two specific features of the proportional electoral system, namely the district magnitude<sup>4</sup> and the electoral formula.

The research is based on a cross-section of 80 democracies in the 1990s and on an unbalanced panel of 60 democracies for the years 1960-98.

Their objective is to compare policy outcomes in democracies ruled by different constitutions.

In order to overcome the definitional problem of democracy, the two economists for the 1990s cross-section rely on the so-called Gastil indexes<sup>5</sup> of political rights and civil liberties.

They also distinguish between good and bad democracies. In this perspective, the Gastil indexes can be evaluate as measurements of the quality of democracies.

Finally, they consider the age of each democracy, in order to know how long a country has effectively been a democracy.

Differently, for the 1960-98 panel of countries, the two authors rely on the Polity IV data set<sup>6</sup> and they use the so-called *polity* index<sup>7</sup>.

Further classifications concern electoral rules and form of government. About the electoral rules, Persson and Tabellini associate a majoritarian electoral system to countries that used a plurality vote election in the most recent electoral competitions; mixed and full proportional electoral systems are considered jointly as proportional. With respect the form of government, they classify as presidential, countries where the executive cannot be brought down by a legislative vote of no confidence (for example as in Argentina and Chile), as parliamentary, countries where it might be done (for example as in Italy and France).

They notice that, during the period 1960-98, the electoral system does not change at all in any country, while the form of government changes only in Cyprus, Fiji, France, Japan, New Zealand, the Philippines and Ukraine and these changes happen mainly during the nineties.

For the 1990s cross-section, with respect the electoral formula, if there has been a reform during the observed period, the two authors, record in their analysis the electoral system acting

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<sup>4</sup> The district magnitude tells us the share of a legislature elected in a specific district.

<sup>5</sup> These indexes, provided by Freedom House data set, vary on a discrete scale from 1 to 7, and assign lower values to better democratic institutions.

<sup>6</sup> In contrast with the data provided by Freedom House, the Polity IV data set allows comparisons on data over the time, as it goes farther back in the years.

<sup>7</sup> The *polity* index, assigns to each country and year an integer score ranging between -10 and +10, with higher values assigned to better democracies.

immediately before the reform, according to the idea that, the effects of the reform on variables such as welfare spending is not immediate.

Based on the latter idea, they use history to explain cross-country variation in constitutional rules, using three indicators that date the origins<sup>8</sup> of the current constitution to the period before 1920, 1921-1950, and 1951-1980, using the period after 1981 as the default period.

In the model are also included cultural and geographical variables, as the distance from the equator, the percentage of the population speaking English as first language or a European language, ethno-linguistic fractionalization and population size.

The main aim of the paper is to find some correlations between specific constitutional features and economic outcomes. The latter are measured through the effect over several economic indicators, as the size of government (measured by the ratio of central government spending, including social security, expressed as percentage of GDP), the central government revenue and the government deficit (both expressed as percentage of GDP). Moreover, relative to the composition of central government spending, they measure social security and welfare spending as percentage of GDP.

Other variables included in the model and expressing the level of economic development of countries are, the log of real per capita income, openness, export plus import over GDP, population size and demographic composition (specifically, the percentage of population between 15 and 65 years of age, and above 65 years of age).

Again, other variables take into account the geographic location (specifically, OECD countries and continental location of non-OECD countries, Africa, eastern and southern Asia, and southern and central America including the Caribbean), and measurements of the influence of colonial history, placing all former colonies in three groups: British, Spanish-Portuguese, and other colonial origins.

The main result of the study is that, in the countries of the sample, the switch from proportional to majoritarian electoral system reduces the government spending, in respect to the GDP, by about 5%, while the welfare spending, in respect to the GDP, reduces by about 2%.

These empirical results represent a significant evidence of the theoretical predictions previously mentioned.

Persson [2005] built further on the previous work introducing into the sample democracies as well as non-democracies and estimating the effects of constitutional changes on the dynamics of growth.

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<sup>8</sup> The origin of the current constitution is defined as the year when the current electoral rule or the current form of government was first established, given that the country was a democracy and independent nation. In case of absence of reforms since becoming a democracy, the birth dates of the constitution and democracy coincide.

He focuses on the institutional arrangements analysing the effects of the *form* of democracy on economic performance.

Lizzeri and Persico [2001], Milesi-Ferretti, Perotti and Rostagno [2002], and Persson, Tabellini [1999; 2000], all elaborated models that predict the particular role of the electoral system in fostering governments more oriented toward the promotion of a higher public spending which benefit larger groups of the population.

Helpman [2004] points out the importance of institutions in the economic development. The presence of good institutions implies the introduction of more effective property rights and this in turn encourages the development and accumulation of new knowledge and technologies, their reproduction over the time, and so increasing the levels of TFP (Total Factor Productivity)<sup>9</sup>.

Helpman also considers the importance of the influence of the colonial history on the current institutions and the different paths of economic development they have generated.

The most original work analysing the influence of colonial history on institutions and economic development is that done by Acemoglu, Johnson and Robinson [2001]. Looking at the mortality rates of the settlers in the colonies, their conclusion is that the settlers built better institutions where disease environment was favourable and *extractive* institutions where not. Particularly, the former settlers introduced property rights and protection against expropriation by government, with persisting effects on the present day institutions, while the latter only exploited resources and transferred them to their home country.

The study shows the existence of a strong relationship between settlers mortality rates and current institutions.

This relationship also works through the impact on economic performances. A notable feature of the study is the strong negative relationship between settlers mortality rates and GDP per capita today.

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<sup>9</sup> The *Total Factor Productivity* (TFP) measures the joint effectiveness of all inputs combined in producing output.

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