The patronage effect: a theoretical perspective of patronage and political selection

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February 14, 2017

Abstract

This article investigates the *patronage* phenomenon under a theoretical point of view. Legislative dissent could have damaging effects for both party and legislator, i.e., legislators depend on their party for re-election, which in turn partially depends on its reputation of cohesiveness. Nevetheless dissent allows the legislator to build a good reputation with local constituents for re-election sake. Then parties may sometimes benefit from tolerating some level of dissent. As a result the party has a double goal: it should require the maximum loyalty from legislators, not ignoring the legislators' reputation with the voters. In this paper we consider patronage as an additional tool for the party to calibrate parlamentarians' loyalty towards the party itself and towards constituencies.

keywords: patronage, political selection, exit strategy, bureaucracy

JEL: D72 D73

1 Introduction

In recent years, governments around the world have transformed the well-known model of state capitalism, under which they owned and managed state-owned enterprises (SOEs) (Ahroni, 1986; Ramamurti and Vernon, 1991), into a new model in which the government works hand in hand with private investors and own either majority or minority equity positions in newly privatized firms (NPFs) and private-public enterprises (PPEs) in general. Many analysts consider this fact as a comeback of state capitalism due to the recent global financial crisis (Bremmer, 2010) but we consider this transformation as a result of the liberalization and privatization reforms that began after the 1980s. Given that privatizations were often partial or incomplete, governments ended up as minority or majority shareholders in a variety of firms across multiple industries, often retaining a controlling stake of the firm.

In this line, Jones et al. (1999) document that during 1977–1999 governments maintained a controlling stake in a majority of the share-issue privatizations (SIPs) in a sample of 630 cases from 59 countries. They found that only 11.5% of the SIPs involved the sale of the entire SOE. Similarly, Bortolotti and Faccio (2009) find that the state remained the largest ultimate owner of about one-third of 141 privatized firms in developed economies during 1996–2000. Furthermore, partially privatized SOEs might still be subject to the political costs of government interference because governments often control privatized firms by means of special arrangements, such as golden shares, that leverage their voting powers in NPFs (Bortolotti and Faccio, 2009). Boubakri et al. (2009) examine a sample of major strategic industries located in 39 countries and report that governments not only continued to remain as shareholders, but also appointed politicians to key positions in the firms. In addition, also anecdotal evidence suggests that, whether the firms are fully or partially privatized, the government often resorts to indirect means to maintain the control on these firms, particularly through political connection i.e., appointing politicians or loyal bureaucrats in key positions within the firms, especially in countries without a strong regulation regarding conflict of interest and career incompatibility.

Predicting a negative effect of state ownership on firm-level performance, the political economy view posits that politicians running SOEs and PPEs (and their coalitions) will use these firms for direct political gain (Chong and Lpez-de-Silanes, 2005; Cui and Jiang, 2012; La Porta and Lpez-de-Silanes, 1999; Shleifer, 1998). Given that party leaders have plentiful access to state resources and that factionalism is thought to weaken parties at the polls, it would be odd if party leaders were unable to strengthen party discipline and reduce internal splits through patronage appointments.

Resource patronage, a key feature of southern Europe political systems, is less extensive in the ministerial domain than in the "parallel administration". The latter consists of a "complex and probably unique melange of (parastate) bodies, public agencies and public corporations marked by an increasing ex-

tension and plurality of organizational models" (Golden, 2003). Especially in Italy, parties have pursued a strategy of colonization by penetrating all spheres of society with party–nominated appointees. Public organizations thus came under the full control of, or became largely dependent on, the parties organizational networks entrenched within an overgrown public sector. This deep state colonization created the conditions for the establishment and the reproduction of *partitocracy*, a regime at first characterized by a substantial monopoly of parties over political activity and, later, by the progressive expansion of their power into the social and economic spheres (Sartori, 2005). The weakness of public bureaucracies, the interventionist tradition of the state in the economic sector, and the necessity of maintaining a precarious consensus for a regime affected by exclusive legitimation, thus gave relevance to patronage as a crucial resource in the Italian pattern of democratic consolidation (Di Mascio, 2012). It was in 1994 that a new process of the party system consolidation began. The introduction of a new electoral law, providing majoritarian institutional arrangements, precipitated the collapse of the old parties and stimulated the consolidation of a new set of competitive interactions. The party system had undergone a radical transformation: most of the parties participating in the 1994 election were either brand new or had been affected by a profound change, with the party system assuming the features of "fragmented bipolarism" (DAlimonte, 2005). Moreover, up to the late 1980s, Italy had had one of the largest state-owned sectors among western economies: twelve of the twenty largest non-financial companies were state-owned, and 90 per cent of financial investment was provided by state controlled banks. The turning point came in 1992, with the advent of a public finance (and currency) crisis. Privatization in Italy produced the second highest revenues in Europe, after the UK. Real progress has been made since the mid-1990s in reducing the debt-to-GDP ratio, which amounted to 124.8% in 1994. Privatization was a main component of the restrictive budget policy pursued to meet the criteria for joining EMU, and between 1995 and 2000 government spending, as a percentage of GDP, fell from 52.5% to 46.2%. Nonetheless, Italy still has one of the highest debt-to-GDP ratios and the state continues to own large stakes of partially privatized firms.

Moreover, another strand of reforms enriched the political class patronage opportunities, the reform of local governments. Legislative powers and administrative functions were decentralized; local executives were reinforced; executives acquired wide regulatory powers over local administrative structures; a new organizational flexibility led to a sharp growth in the number of local disaggregated institutions. After these reforms, local governments represent a larger share of total expenditure (31.3%) than they do of revenue (19.1%), and finance 54.3% of this expenditure through grants and transfers (OECD, 2009). Moreover corporatization by local governments has created a wide semi-public sphere composed of local enterprises, which amounted to 4,874 units in 2005 (Citroni, 2009). Patronage is still pervasive in the italian public sector. A quantitative analysis of opportunities for patronage has been provided in Quaresima and Fiorillo (2016) and it worths noting that political appointments are actually allowed by the legal framework for most types of institution in all policy sectors.

The logic of patronage is mainly guided by a desire to allow party governors to control the processes of policy design. Parties nominate loyal individuals to top strategic positions (senior executives, board members, public corporation managers) in order to render administrative structures more responsive to changes in policy priorities. Another rationale for patronage is represented by rewarding loyal party members: in that case there is a provision of support after getting a patronage job or, most likely, the provision of political support in expectation of getting a patronage job, as we will assume in the theoretical model we present in this paper.

2   Related literature

One topic our model is close to consists in the political economy analysis of politicians' career and party selection. In Mattozzi and Merlo (2008) two career paths are viable among politicians: 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 their paper, they propose a dynamic equilibrium model of the careers of politicians in an environment with a private sector and a political sector, where individuals are heterogeneous with respect to their market ability and political skills. Our analysis provides a different explanation for the existence of career politicians and individuals with political careers specifically in (semi) public firms, and their motivations, such as the proved loyalty to their party during the term.

The question of loyalty and its convenience for parliamentarians is shown very clearly in Indridason (2008). Several papers on party governance have considered the effects of dissent or intra-party disagreements. Caillaud and Tirole (2002) argue that the possibility of intra-party disagreement enhances parties electoral prospects but that actual expressions of disagreement hurt the party. In an extension of Caillaud and Tiroles model, Castanheira et al. (2005) find that the possibility of disagreement is beneficial when voters are relatively uninformed about the candidates performance and when the perks of office are low. Beniers (2005) examines a model in which party leaders ability to fire legislators influences dissent, but that such ability leads to worse policies if the party leader is incompetent. A result of our model is that the party does not require full agreement to its policies by the parliamentarians to appoint them in a patronage board of directors, also because a complete loyalty by the parliamentarian could signify losing a seat in parliament after next elections.

Focusing on biased contest, in Athey et al. (2000), Fryer Jr and Loury (2005) and Morgan et al. (2012) the principal biases the contests for promotion to reach some further objectives, such as promoting more competent agents in the first case, diversity in the second case and attracting talent to the organization in the last case. In other words, the planner affects the composition of the organization in the direction he prefers, as in this paper when the party (leader) cares about

the composition of appointed members, caring of their proved loyalty. When the planner biases the contest to give incentives for the agents to be more loyal he is solving the *double principal problem* of the parliamentarian. In those papers it is still the planner who administers the biased contest, as in our model the party uses a biased selection for a patronage position to encourage an optimal level of parliamentarians' loyalty.

The agents in our model are pure egoists, in the sense that they only care about their utility function and not how it is maximized. In models where agents have public sector motivation, such as Besley and Ghatak (2005), Delfgaauw and Dur (2008) and Delfgaauw and Dur (2010) agents value their contribution to the welfare irrespectively of what happens if they do not contribute; in this work we do not consider this possibility.

Lastly, Prendergast and Topel (1993) consider an agency model where a supervisor intrinsically cares about his junior being promoted and biases his evaluation report to the principal. In their work, while favouritism creates distortions, completely eliminating it might not be optimal since the agents value exercising it. The agents then agree to a lower wage and, similarly, in our model the parliamentarian agree to be more loyal, partially losing his/her reputation towards his/her district, to gain utility through the patronage position.

Actually, the application to patronage of the selling of positions seems quite scarce from corruption literature. Also, very few papers consider organizational design with corrupt or favored agents.

3 The model

3.1 Introduction

Based on the above discussion we design a baseline model to depict the dynamics which could theoretically represent the incentives and the behaviors of parties, members of parliament (MPs) and districts. Representative behaviors are the results of such *players'* incentives and their utility functions. Naturally, along the model we will make some simplifying assumptions about these dynamics.

First of all we impose a term limit for a parliamentarian: a MP could be elected for two terms at most. This considerably simplify the analysis and, except for party elite parliamentarians, represents the mean incumbency duration for a MP, at least in Italy.[1] Secondly, we consider a context of selfish politicians who are solely motivated by their utility functions. Though they may pursue both policy and office goals, we assume the latter objective prevails on the former, so that MPs are foremost driven by career rationales. In the model MPs

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[1]See on this Fedeli et al. (2014).

could gain utility by being (re)elected in parliament and being appointed in a *patronage* board of director (in a PPE). Then, the legislator will choose his/her level of party loyalty in order to maximize his/her expected utility given his/her beliefs about the "returns" of that particular degree of loyalty. Specifically, in order to be reelected a MP has to overcome two separated steps: the selection as a candidate and, later, the actual election.[2] In the model party loyalty affects these two steps in opposite ways: if for the former it increases the likelihood of being reapplied by the party, for the latter we suppose it can be detrimental for reelection, in line with the political science literature about the issue.[3] Indeed, voters tend to punish those legislators who systematically stand on party lines not questioning partisan policies which can be damaging to the local development of the constituency. We are aware that this contrast between party and district is more appropriate in majoritarian systems[4] where in each (uninominal) district one representative is elected by simple plurality according to a pure first-past-the-post election, and we have built the model keeping in mind such electoral system. Nevertheless, the model could apply also in proportional systems even if the MP-district link is less close than in majoritarian contexts. A legislator must definitely always face these two principals. Moreover, existing interpretations for legislator party dissent include the desire to cultivate a personal vote[5] or to develop name recognition.[6] The personal vote hypothesis refers to the idea that legislators seek a personalized rather than party-based relationship with their constituents, beyond the actual electoral rule. In the base model we make the strong assumption that parties always reapply its incumbents, following the incumbency advantage rationale present in literature: using quasi-experimental regression discontinuity (RD) research designs, recent studies confirms an incumbency advantage for the political party holding the legislative seat in the U.S., as in Butler (2009), as well as in Canada, as in Kendall and Rekkas (2012), in the United Kingdom, as in Eggers and Spirling (2015) and in Australia, as in Horiuchi and Leigh (2009). In the extension we relax this assumption letting the party to be able not reapplying its incumbent.

We also assume that the party is interested in gaining its MPs' loyalty in order to be able to implement effective policies (for government parties) or to adopt a united front against the government (for opposition parties). Moreover, the party will implicitly consider a major concern also its MPs reelection, which depends on MP's district loyalty. In order to optimize its utility function the party will have to wisely balance these two contrasting incentives which are related to the MP's district (and, equivalently, party) loyalty. Having imposed the term limit equal to two legislatures, the party will offer a patronage position at the end of the MP's second term (if reelected) relating the patronage position stand to his/her second term party loyalty (shown in parliament). If the MP is not be reelected after his/her first term, the patronage position stand will be

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[2]The MP finds him/herself in a *double principal* dynamic.
[3]See on this, among others, Carson et al. (2010) and Golden (2003).
[4]See on this, among others, Gagliarducci et al. (2011).
[5]Cain et al. (1987).
[6]See on this Benedetto and Hix (2007) and Kam (2009).

related to his/her intrinsic party loyalty, $1 - l$, rewarding only the *real* MP's party loyalty (not influenced by a mimicking strategy).[7]

Then, in the model we assume that candidate selection takes place inside political parties (no primaries) and the actual election depends on the district voters. In so doing we do not define a real utility function for the voters, we only apply a probabilistic decision rule for the reelection. Therefore, in the model, parties search for candidates who pull votes in order to be reelected and, simultaneously, who share, as much as possible, the party policy preference.

3.2 The algebra of the model

As said, in the model we firstly assume that the incumbent will always get the candidacy to run again for the seat. We will relax this assumption later. The time of events are reported in Figure 3.1. At time t_0 MPs are elected thanks to their constituency votes. The party may be in government or may be in opposition. At nearly the beginning of the term the party promises to its incumbents a patronage position, characterized by a prestige R. The MP's utility deriving from R will depend on his/her next term *shown* party loyalty if he/she will be reelected or upon his/her first term *intrinsic* party loyalty if he/she is will not be reelected.[8] After considering his/her utility function the legislator decides about how much following party dictates in parliamentary votes and how much aligning him/herself to the district demands. In modeling this, we indicate the ratio of the number of votes in line with the latter to the total votes to be casted with λ and, naturally, $1 - \lambda$ will denote the MP loyalty towards the party in his voting behavior (Λ will denote the same characteristic in the subsequent legislature). Obviously $0 < \lambda < 1$ and $0 < \Lambda < 1$.
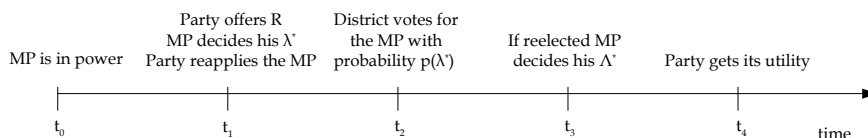
MP is in power	Party offers R MP decides his λ^* Party reapplies the MP	District votes for the MP with probability p(λ^*)	If reelected MP decides his Λ^*	Party gets its utility	
t_0	t_1	t_2	t_3	t_4	time

Figure 1: Timeline.

The tendency of the MP in responding to his/her two principals is crucially

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[7] The assumption about l is that at the end of a legislature the party may know it. See later.

[8] The MP always obtains a patronage position. Nevertheless, its standing will depend upon different variables, according to his/her next election result.

influenced by the number of policies that government enacts in favor of the MP's district. We represent the ratio of the MP's district favorable policies with ϕ. Quite intuitively, greater values of ϕ will facilitate majority MPs and will trouble opposition ones.[9] Then, MPs are reapplied for the subsequent legislature and, with probability $p(\lambda)$, reelected. At the end of the two terms party gets its utility, $\mathcal{L}$. Formalizing the MP's utility function we have:

$$
W = Y - \frac{K}{2}(\lambda - l)^2 + \delta\lambda Y - \delta\lambda\frac{K}{2}(\Lambda - l)^2 + \delta^2\lambda(1-\Lambda)hR + \delta^2(1-\lambda)(1-l)hR \ (1)
$$

where, beyond the already defined variables, Y represents the ego rent deriving from being elected in parliament and it is known by the party,[10] K is a parameter which translates into a cost the act of lying,[11] δ is the discount factor and h renders the personal ego rent the MP would obtain from the patronage position. Lastly, l: this variable essentially tell us the true, intrinsic, MP's loyalty towards his/her district. The idea behind this parameter is that each legislator has an his/her own inclination about siding with his/her constituency. It could depend on whether he/she always lived in his/her election district (*district commitment*), upon his/her personal belief about the importance of citizen direct support compared to the party aid in campaigning for reelection (*district convenience*) or simply upon his/her leaning towards national or local sake.[12] The value of l is inferred by the party at the end of the MP's first term, knowing his/her utility function, his/her optimal λ^* and the offered R.

Naturally, the function is different for those legislators who already are at their second term in t_0. They can not be reelected because of the term limit and have only a term ahead of them. In this case the loyalty which counts is the one denoted by Λ, his/her second term loyalty. In formula:

$$
W_{2nd} = Y - \frac{K}{2}(\Lambda - l)^2 + \delta(1 - \Lambda)hR \tag{2}
$$

In this perspective we define p and P, respectively, the probability with which a legislator of the majority will vote in parliament in line with his party, in the current term and in the next one. The same holds for opposition MPs, whose likelihood of voting along their party lines is denoted by q and Q.

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[9]WE do not make strict assumptions on ϕ. We consider it not in control of government.

[10]E.g. the *indennit parlamentare*.

[11]Where for lying we intend the difference between λ and l, between the shown loyalty and the intrinsic one.

[12]We refer in this case to situations like, e.g., the NIMBY syndrome.

$$\begin{aligned}
p &= \phi + (1-\phi)*(1-\lambda) = 1 - \lambda(1-\phi) \\
P &= \phi + (1-\phi)*(1-\Lambda) = 1 - \Lambda(1-\phi) \\
q &= 1 - \phi + \phi(1-\lambda) = 1 - \phi\lambda \\
Q &= 1 - \phi + \phi(1-\Lambda) = 1 - \phi\Lambda
\end{aligned}$$

If ϕ is the proportion of national policies favorable to the MP's district, we can see how the above likelihoods are built. A ruling party legislator will undoubtedly (100% of the time) vote in favor of those national policies which are also beneficial to his election district (ϕ% of the time): in this case, his/her party has the same interest of his/her constituency.[13] On the contrary, in the case when the interest diverges ($1 - \phi$% of the time), the parliamentarian will vote along party lines according to his party loyalty. Following the same argument we describe, in a reciprocal way, the dynamics of the opposition party. In the $1 - \phi$ cases an opposition MP will easily vote against the government/majority bills, but, when the government proposes policies favorable to his/her election district he/she will vote with his/her party according to his/her party loyalty.

The above equations bring me to define the party utility function. If the party decides to always reapply its incumbents, as we assume for the moment, it will present the following utility function:

$$\mathcal{L} = pm + q(1-m) + \delta[\lambda[PM + Q(1-M)]] - \frac{1}{2}bR^2 \tag{3}$$

As we have noted above the values of p, P, q and Q depend on ϕ, and on λ and Λ (with every related value belonging to the unit interval). The m variable is an indicator variable that signals if the legislator belong to majority ($m = 1$) or to the opposition ($m = 0$). The parameter b translate into a cost the patronage position standing (R) the party proposes to the MP; it could represent the organizational costs of finding a position to the MP, and we assume that the party immediately bear this *cost*, right after the MP's first election. M measures the expected percentage of seats that the party predicts to obtain in the second term. Two clarifications are needed. Firstly, we assume that a parliamentarian will be reelected with probability λ: assuming the reelection dependent on district votes, we proxy this link in the most simple way. Obviously, with probability $1 - \lambda$ the MP loses next elections, in which case the party obtains nothing. Secondly, as regards M we can think that the expected number of seats the party foresees to obtain in the next election can be the result of consulted polls or, alternatively, be proxied by its current number of seats.

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[13]The incentives are aligned.

Maximizing equations (3.1) and (3.2) we develop the MP's optimal choice, according to the legislature he/she is actually attending, about his/her best levels of district loyalty (λ and Λ).

$$\operatorname*{argmax}_{\lambda}[Y-\frac{K}{2}(\lambda-l)^2+\delta\lambda Y-\delta\lambda\frac{K}{2}(\Lambda-l)^2+\delta^2\lambda(1-\Lambda)hR+\delta^2(1-\lambda)(1-l)hR]\equiv\lambda^* \tag{4}$$

$$\operatorname*{argmax}_{\Lambda}[Y-\frac{K}{2}(\Lambda-l)^2+\delta(1-\Lambda)hR]\equiv\Lambda^* \tag{5}$$

$$\lambda^*=l+\delta\frac{Y}{K}-\frac{1}{2}\delta(\Lambda-l)^2+\delta^2\frac{hR}{K}(l-\Lambda) \tag{6}$$

$$\Lambda^*=l-\delta\frac{hR}{K} \tag{7}$$

Substituting[14] (3.7) in (3.6) we obtain the optimal MP's shown district loyalty. Naturally, MPs engaged in the patronage exchange are those who have the current and the next legislatures to conclude.[15]

$$\lambda^*=l+\delta\frac{Y}{K}+\frac{1}{2}\delta^3\frac{h^2R^2}{K^2} \tag{8}$$

In words, equation (3.8) tell us how λ^* is modified by a legislator,[16] respect to his/her l, in order to maximize his/her utility. Given the threshold of his/her l, the parliamentarian will increase his/her district loyalty to rise the likelihood of being reelected at the second term. Indeed, if reelected he/she may take more advantage of the patronage position at the end of his/her second term[17] and,

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[14]Note that if $l-\delta\frac{hR}{K}<0$ then $\Lambda^*=0$. Without losing generality we can avoid considering this constraint.

[15]That is to say that the *game* starts as soon as a parliamentarian has been elected for his/her first time.

[16]Note that if $l+\delta\frac{Y}{K}+\frac{1}{2}\delta^3\frac{h^2R^2}{K^2}>1$ then $\lambda^*=1$. Without losing generality we can avoid considering this constraint.

[17]The advantage is that the patronage position could be influenced modifying his/her Λ and it will not depend upon his/her inherent l.

obviously, of the utility deriving from attending another legislature. With increasing ego rent deriving from attending another legislature and with increasing ego rent deriving from a possible patronage position at the end of his/her career, the parliamentarian will show more district loyalty, at least in his/her first term.[18] This complies with how we outline the rewarding dynamic. Moreover, the optimal level of district loyalty will depend on the individual parameters h and K, and on the discount factor δ. Indeed, the same patronage position could be more appreciated by legislators with a higher h and less enjoyed by MPs with higher K.

The party, reapplying the incumbent,[19] maximizes its utility function considering the legislator's behavior in its optimization process. Thus, from equation (3.3), we shape its objective function including the MP's optimal behavior. Posing K and h equal to one for sake of simplicity, and accordingly rescaling the others parameters, we have:

$$\mathcal{L} = [1 - \lambda(1 - \phi)]m + (1 - \lambda\phi)(1 - m) + \delta\lambda\{[1 - \Lambda(1 - \phi)]M + \\ + (1 - \Lambda\phi)(1 - M)\} - \frac{1}{2}bR^2 \tag{9}$$

In posing this expression as the party utility function we stress the importance of MPs' loyalty to the party and the relevance for the party to have its MP reelected. Indeed, lower values of party loyalty will be the price to be paid to increase his/her reelection likelihood. In this trade-off the party knows that increasing R it would discourage party loyalty in the first term (encouraging its MP district loyalty), increasing it in the second one, unless the MP will be reelected. By placing $m(1 - \phi) + \phi(1 - m) = \gamma$ and $M(1 - \phi) + \phi(1 - M) = \Gamma$:

$$\mathcal{L} = 1 - \lambda^*\gamma - \delta\Gamma\lambda^*\Lambda^* + \delta\lambda^* - \frac{1}{2}bR^2 \tag{10}$$

To γ and Γ could be given a specific interpretation. The former measures the combined effect, on party (dis)utility, of being in the majority or in the opposition and of receiving $\phi\%$ of favorable policies by the MP's district. Similarly, the latter shows the combined effect of party expectations about the future election and of the advantageous MP's district national policies on party objective function. More specifically, if the party in t_0 is the ruling one γ will equal to $1 - \phi$: in this case, then, the party would be favored with high values of ϕ,

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[18]This means that λ^* is positively influenced by increasing values of R.

[19]Considering the incumbency advantage theory, we assume that for the party it is optimal raising its MPs' first term district loyalty through R in so far as this choice does not lower MP's party loyalty to extreme low values; in assuming this we are implicitly stating that, the party cares about its MP reelection but also cares about his/her party loyalty.

namely if national policies in favor of its elected legislators' constituencies are the large part of the total enacted policies. Viceversa for the opposition party: in order to increase its utility it would be better if the government party would not favor its MPs' districts (of the opposition party), trying, for example, to win actual opponent constituencies confidence. The described incentives are quite intuitive. For a ruling party, increasing ϕ means aligning MPs' incentives toward both party and district, so that this would minimize the utility loss due to MP's district loyalty. On the other hand, for an opposition party, an increase of ϕ by the goverment would mean splitting the MPs' incentives between the party and the district: to curry favor with his/her two principals a legislator should vote in a opposing way at the same time. The interpretation of Γ is less straightforward. From simulations we can see how it varies with different M and ϕ values.

M	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8
ϕ	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Γ	0.32	0.44	0.56	0.68	0.44	0.48	0.52	0.56	0.56	0.52	0.48	0.44	0.68	0.56	0.44	0.32

Table 1: Values of Γ.

The (dis)utility of Γ component seems to increase with the increasing distance between its two constituting parts, M and ϕ; the larger their difference the larger the Γ value. We describe its dynamic reasoning two cases.[20] Firstly, we can consider the situation where the party has high expectations about (re)winning next election $\left(M > \frac{1}{2}\right)$ assuming a very low number of national policies favorable to its MPs' districts $\left(\phi < \frac{1}{2}\right)$. In this case a low level of ϕ in the next term would mean posing in sharp contrast MPs' loyalty toward the party and toward the constituency. Indeed, the party is almost sure of being in government and few convenient policies toward its MPs' district cause their legislators distress, having them different incentives about their voting behavior. Secondly, the case where party strongly believes in being at the opposition in the next legislature $\left(M < \frac{1}{2}\right)$ and expects much national policies convenient to its districts $\left(\phi > \frac{1}{2}\right)$. In such situation a high number of favorable policies addressed to MPs' districts in the next term will, exactly the same, trouble legislators who will be undecided about which principal complying with.

By substituting λ and Λ with their MP's optimal values, maximizing equation (3.10), and setting, without loss of generality, $\delta = 1$, we have:

$$\frac{\partial \mathcal{L}}{\partial R} = \frac{3}{2}\Gamma R^2 + (1 - b - \gamma - l\Gamma)\,R + \Gamma(Y + l) \tag{11}$$

If we assume that a party outsider's expected loyalty equals to 0.5 ($\mathbf{E}(l) = 1/2$) we obtain the following R^*:

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[20]In what follows we assume that parties consider ϕ costant.

$$R^* = \frac{1}{3}\left(\frac{1}{2} + \frac{b+\gamma-1}{\Gamma}\right) - \frac{1}{3}\left[\left(\frac{1}{2} + \frac{b+\gamma-1}{\Gamma}\right)^2 - 6Y - 3\right]^{\frac{1}{2}} =$$

$$= \frac{1}{3}\left[\left(\frac{1}{2} + \frac{b+\gamma-1}{\Gamma}\right) - \sqrt{\Delta}\right] \qquad (12)$$

Now we could shape some comparative statics about R^* and verify how its value may be modified by other variables variations.[21] First of all we verify that a positive relationship exists between R^* and Y.

$$\frac{\partial R^*}{\partial Y} = \frac{1}{\sqrt{\Delta}} > 0 \qquad (13)$$

This result tells us that the more a legislator enjoys being (re)elected to the parliament, the more prestigious should be the patronage reward to stimulate him/her party loyalty in the second term. In other terms, patronage positions standing should tend to be greater for those parliamentarians who are ensured with high salaries respect to ones ensured with lower wages. We can interpret the result in the following manner: those legislators, characterized by high levels of Y, to be loyal to their party need additional prestige because, earning more from being a parliamentarian, they will not accept seats in *boards* of secondary firms or of low-visibility ones, in exchange of their party loyalty. On the contrary, MPs who earn less, in comparison, will positively value also less prestigious patronage positions, easily aligning their voting behavior to the party desires (in the second term).

A quite predictable result concerns the parameter b. As we have seen, this parameter measures how much a patronage position characterized by prestige standing R costs to the party, essentially in terms of organizational costs.

$$\frac{\partial R^*}{\partial b} = \frac{1}{3}\frac{1}{\Gamma} - \frac{1}{3}\frac{1}{\sqrt{\Delta}}\left(\frac{b+\gamma-1}{\Gamma} + \frac{1}{2}\right) < 0 \qquad (14)$$

This is to say that, the more an equal patronage position costs to the party, the less the party will be likely to assure its legislators that position. In a similar way we prove an inverse relationship between R and γ:

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[21] we assume that $R > 0$ is true if $b > 1$ and $\Delta = (\frac{b+\gamma-1}{\Gamma} + \frac{1}{2})^2 - 3 - 6Y > 0$. Note that if $\Delta \leq 0$, $\frac{\partial \mathcal{L}}{\partial R} \geq 0$ $\forall R$, which leads to a trivial solution.

$$\frac{\partial R^*}{\partial \gamma} = \frac{1}{3}\frac{1}{\Gamma} - \frac{1}{3}\frac{1}{\sqrt{\Delta}}\left(\frac{b + \gamma - 1}{\Gamma} + \frac{1}{2}\right) < 0 \tag{15}$$

Recalling that: $\gamma = m(1 - \phi) + \phi(1 - m)$, in this case we can identify γ as the combined effect of being in the majority/opposition and of ϕ towards R^*.[22] Two possible scenarios are possible:

1. $\phi > \frac{1}{2}$; $\gamma_{opp} > \gamma_{maj}$

2. $\phi < \frac{1}{2}$; $\gamma_{opp} < \gamma_{maj}$

In the first scenario government has been implementing many policies in favor of a given MP's district: then, if opposition legislators will tend to be loyal, in the first term, to their districts and not to their party, given that R exerts a positive influence on λ^*, the opposition party will propose smaller values of R^*, in order to enhance their party loyalty and avoiding that it would assume extremely low values. By contrast majority legislators will tend, ceteris paribus, to be loyal to both their districts and their party contemporaneously, so that the party could "afford" granting more prestigious patronage positions to its parliamentarians, possibly gaining a greater future party loyalty, and not losing anything in terms of current party loyalty (*aligned incentives*).

Vice versa in the second scenario. If government has been adopting few policies in favor of a MP's district, opposition legislators will be naturally predisposed to be loyal both to his/her district and to his/her party, while this is not the case for the majority ones. In this case the opposition party will guarantee more prestigious patronage positions to its legislators (gaining in terms of future party loyalty) while less prestigious patronage positions will be assigned by the government party to its members, avoiding the case in which they would stand too much on district line, not providing a sufficient level of party loyalty in the current legislature.

In line with such reasoning we can describe the Γ variable recalling that Γ is a continuous variable which ranges from 0 to 1 and is equal to $M(1-\phi)+\phi(1-M)$.

$$\frac{\partial R^*}{\partial \Gamma} = \frac{1}{3}\frac{b + \gamma - 1}{\Gamma}\left[\left(\frac{b + \gamma - 1}{\Gamma} + \frac{1}{2}\right)\frac{1}{\sqrt{\Delta}} - 1\right] > 0 \tag{16}$$

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[22]If the party in t_0 is the ruling one, γ will equal to $1 - \phi$, while if in t_0 the party is the opposition one, γ will be equal to ϕ.

It worths note that, differently from the γ argumentation, now R exerts a negative influence on second term MP's district loyalty, as stated by equation (3.7). The comparative statics tell us that increasing values of Γ make increase the optimal value of R. More prestigious patronage positions will be proposed by the party in response to increasing values of Γ, in order to minimize the related negative utility component. Conversely, lessening values of Γ causes the party to ensure less prestigious positions in equilibrium. In this case when a MP is likely to seat in the majority party $M > \frac{1}{2}$, if he/she is likely to seat in the opposition party $M < \frac{1}{2}$. Thus it is possible to replicate the comments we have done for γ:

1. $\phi > \frac{1}{2}$; $\Gamma_{opp} > \Gamma_{maj}$

2. $\phi < \frac{1}{2}$; $\Gamma_{opp} < \Gamma_{maj}$

where in this case we consider the MP's expectations of being in the majority party or in the opposition one. Obviously in the second term, given the opposite sign of the derivative, the likelihood to be in the majority exerts the opposite effect respect to the one exerted in the first term (respect to currently being in the majority party).

3.3   Relaxing the incumbency advantage hypothesis

Now, relaxing the incumbency advantage hypothesis we analyze what may happen if the party decides not to reapply an incumbent of its to the following term (among those MPs who actually are attending their first legislature and for which the term limit is not binding). In doing this we assume that an incumbent may show two different levels of party loyalty: one if he/she believes to be reapplied in the next term, and another one if he/she is certain not to be reapplied by the party, after considering the party patronage offer. In the latter case the optimal value of λ for him/her will be l.[23] If the party reapply its incumbent nothing changes respect to the preceding section. Considering only the party incentives:

$$\mathcal{L_R} = 1 - \gamma\lambda + \delta\lambda(1 - \Lambda\Gamma) - \frac{1}{2}bR^2 + \delta^2\mathbf{E}(V) \tag{17}$$

where we define $\mathbf{E}(V)$ as the intertemporal party utility at time 0 when both

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[23]We can see this from the MP's utility function. See equation (3.1).

parties nominate an outsider to the next term. Such situation happens when party in charge, in one district, has to change its MP (because of the term limit) or when it prefers changing it. $\mathbf{E}(V)$, implicitly, includes all the information about the party utility when it nominates an outsider (in an infinite time horizon), such as the likelihood of the outsider's election, the utility the party will derive from him/her loyalty once (if) elected, whether he will be substituted in the following term or after two terms, and so on. At time 0, if the party decides not to reapply its incumbent to the next term its utility function become:

$$\mathcal{L}_{\mathcal{N}} = 1 - \gamma\lambda - \frac{1}{2}bR^2 + \delta\mathbf{E}(V). \tag{18}$$

Thus, with the information available to the party to estimate $\mathbf{E}(V)$, from the viewpoint of the party it would be optimal not to reapply an incumbent if $\mathcal{L}_{\mathcal{R}} - \mathcal{L}_{\mathcal{N}} > 0$, that is to say:

$$\delta\lambda(1 - \Lambda\Gamma) + \delta^2\mathbf{E}(V) - \delta\mathbf{E}(V) > 0. \tag{19}$$

Simplifying and rearranging

$$\lambda(1 - \Lambda\Gamma) > \mathbf{E}(V)(1 - \delta) \tag{20}$$

The interpretation of Equation (3.19) is quite straightforward: for a party is always optimal to reapply its incumbent if the outsider option expected utility shows a sufficiently low level, at least lower than the party utility component of the second term in case it reapplies the incumbent (not discounted). Vice versa, if the party estimates for itself a high utility from applying an outsider, the decision about reapplying its current incumbent will depend on the latter's behavior.

The incumbent behavior can be described by two utility functions: a first one in the case he/she believes he/she will be reapplied by the party, and a second one if he/she believes he/she will not be reapplied. In the first case we have (posing h and K equal to one, as in the previous section):

$$W_R = Y - \frac{1}{2}(\lambda - l)^2 + \delta\lambda Y - \frac{1}{2}\delta\lambda(\Lambda - l)^2 + \delta^2\lambda(1 - \Lambda)R + \delta^2(1 - \lambda)(1 - l)R. \tag{21}$$

In the second case:

$$W_N = Y - \frac{1}{2}(\lambda - l)^2 + \delta^2(1 - l)R. \tag{22}$$

In this case it is optimal for the MP to set $\lambda = l$: if he/she believes he/she is not running again for election, then the optimum would have been simply showing his/her intrinsic loyalty, l. As in the base model the party patronage offer is binding, and the MP will always obtain a patronage job; nevertheless, the actual patronage standing obtained by the MP will be based upon his/her second term shown party loyalty if reelected, and upon his/her first term intrinsic party loyalty if not reelected or not reapplied. As for the party, we can see which would be the incumbent's optimal choice comparing the above utility functions, specifically when for him/her is optimal to behave hoping for the reapply. In formula, we thus check when $W_R - W_N > 0$, where

$$W_R - W_N = \delta\lambda Y - \frac{1}{2}\delta\lambda(\Lambda - l)^2 + \delta^2\lambda(1 - \Lambda)R + \delta^2(1 - \lambda)(1 - l)R - \delta^2(1 - l)R \tag{23}$$

Simplifying, we obtain:

$$W_R - W_N = \lambda(\delta Y + \frac{1}{2}\delta^3 R^2). \tag{24}$$

Being $W_R - W_N$ always greater than zero, it is possible to state that for the incumbent is always optimal to behave hoping for the nomination, trying to push for standing as a candidate again next term. As a result, for the incumbent holds the following incentive scheme:

$$W_N(\lambda^*) < W_N(l) < W_R(l) < W_R(\lambda^*). \tag{25}$$

In words, for the incumbent is always optimal getting the candidacy (W_R), even if he/she behaves as he/she will not obtain it. In the case he/she does not get the candidacy (W_N), then his/her optimum behavior would have been simply showing his/her intrinsic loyalty, l. In figure 3.2 we report a tree diagram which represents the incumbent's strategic decision making. As said, if the MP gets the nomination by the party once again it would have been optimal having
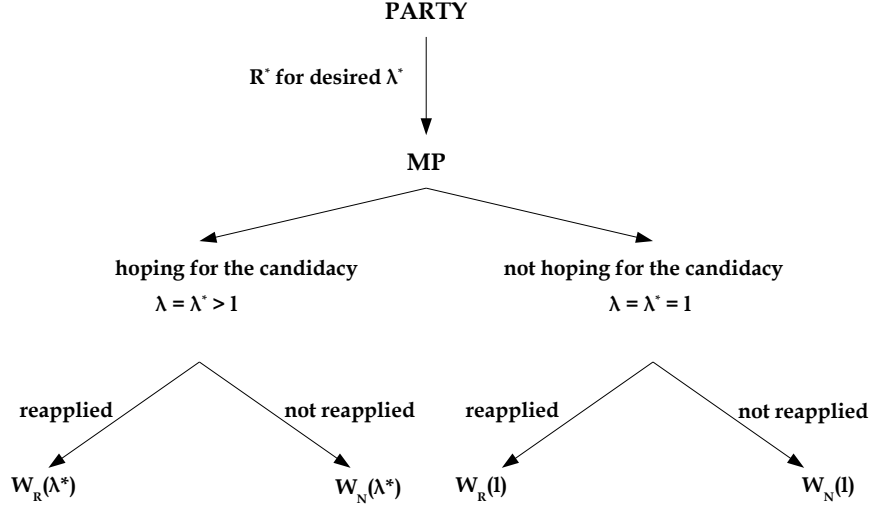
17

Figure 2: A tree diagram representation.

set $\lambda = \lambda^* > l$; vice versa, if he/she does not get the candidacy it would have been optimal having shown $\lambda = l$.[24]

The equilibrium of this dynamic naturally arises considering both MP and the party optimal strategies. The next proposition describes the two possible reachable equilibria (a formal proof of Proposition 1 is provided in the Appendix).

Proposition 1 *If party* $\mathbf{E}(V)$ *is sufficiently high, and incumbent's l is very high or very low, then the party does not reapply the incumbent and the equilibrium is represented by* $W_N(l)$ *and* $\mathcal{L}_{\mathcal{N}}$. *Otherwise, the party will always give his/her incumbent the nomination with payoffs equal to* $W_R(\lambda^*)$ *and* $\mathcal{L}_{\mathcal{R}}$.

The above proposition suggests that, when the party estimate a low utility gain from giving to an outsider the nomination, then it will always prefer to reapply the incumbent to the next term, beyond the loyalty shown by the incumbent in his/her first term. In other words, when an outsider does not represent a promising option in terms of utility, the party will always prefer not to *leave the old road for a new one*. The only case in which the party could consider the outsider option would be when the party expectations about the outsider are very high[25] and, at the same time, the incumbent's district loyalty assumes extreme values. The interpretation is quite clear: the incumbent will put at risk his/her nomination if, on the one hand, he/she does not provide

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[24]To see this, just compare $W_R(l)$ with $W_R(\lambda > l)$.
[25]E.g. the available outsider is a well-known politician.

sufficient loyalty to the party and, on the other hand, he/she provides too much party loyalty putting at risk his/her reelection if reapplied by the party. In these cases party may consider the opportunity to replace the incumbent if and only if the expected value of such substitution, $\mathbf{E}(V)$, is high enough.

4   Conclusions

In this paper, we have compared the incentives of a party (leader) and of a legislator in the political selection of candidates, also considering a possible patronage position for the latter. Throughout the paper we have assumed for MPs a two terms limit. We have also assumed a strong incumbency advantage which makes the party choose to always reapply an incumbent of its, and then, we have relaxed the said assumption.

The model suggests that for both of the players it is optimal having legislators, who may be reapplied, that in the first terms show high levels of district loyalty, in order to maximize their likelihood of being reelected (at least until a given level), and that, in the second term, show high levels of party loyalty, in order to maximize their patronage reward and the effectiveness of the party national policy (in the second term). The result show us how a party having many legislators at their first term could be less effective, about its national policies, in the current term and more in the subsequent legislature. Instead, if the party does not sufficiently encourage its MPs through patronage, allowing them to be too strongly aligned with their party demands in the first term, it could face a high risk of loosing that seat at next elections, having made the incumbent unconvincing in the voters' eyes. In other words, a party that has many first-term MPs may risk, in general, to loose next elections trying to pull its MPs' voting behavior towards its lines and not ensuring them a patronage position. Relaxing the incumbency advantage hypothesis we have proposed two equilibria which could be optimal for the party and the MP and which depend upon the outsider's standing and upon the incumbent behavior in term of party/district loyalty.

The political selection of candidates and the patronage phenomenon have been analyzed in a very stylized set-up ignoring several elements. Some extensions could be analyzed in further research. First of all we have explicitly defined the utility function of both the party and the MP. Naturally, even if we made relatively few assumptions about their behavior this does not mean that the utility functions structure are not highly questionable. In further research those could be much refined, e.g. a MP could be truly concerned about society interests caring less about his/her career concerns. Secondly, the role of the district is not formally made clear, but only implicitly included in the model and assuming how voters' behavior is, very simply, joined to the MP's district loyalty.

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