

Benchmarking Politicians*

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Abstract

We study a political system in which voters can optimally pick between political platforms, but cannot screen the quality of individual politicians associated with these platforms. A bad individual achievement can correspond to either incompetence (adverse selection) or corruption (moral hazard). Information could improve, if independent experts assess achievements as compared to commitments, allowing independent judges to investigate possible corruption. We find that while good experts are always beneficial as they increase transparency, the impact of the quality of judges is ambiguous. Above a threshold, with risk-averse social planners, good judges increase the incentive-compatible punishment of politicians, at the cost of possible judiciary mistakes.

1 Introduction

Well intended politicians making the right policy choices and voters well informed on the platform and the quality of these politicians are obviously a desirable feature of democracies. While increasing the transparency of the policy decisions made by representatives is a growing concerns among Western democracies,¹ very few countries generate reliable and transparent information on the cost-effectiveness and the honesty of their politicians. This limits democracy since policy-making is, in general, so complex and so subject to random shocks, that it is hard for voters to distinguish

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¹Recent contributions (see for instance Adsera, Boix and Payne (2003)) have focused on the idea that better informing voters could improve democracy. This idea of increasing access to information has lead in the US to projects such as votesmart.org or congress.org tracking the votes of MPs. For the European Union, Hix, Simon and Roland (2004) have tracked the voting behavior of MEPs over more than 20 year suggesting that the voting cohesion of transnational parties is a positive development for the future of democratic accountability in the European Union.

between corrupt and incompetent politicians by simply looking at outcomes as they are reported in the media. Indeed, in a number of high profile incidents in various countries, politicians have used this similarity to claim to be incompetent rather than corrupt.²

To complete the role of voters, most, if not all, countries rely on a national public institution with an ability to assess the performance of governments and public administrations (e.g. Government Accountability Office for the US federal government, National Audit Office in the UK, Court des Comptes in France or Belgium, Tribunal de Cuentas in Spain, ...). These are generally roughly courts of auditors sharing the goal of ensuring fair performance assessments of government activities. They vary significantly in terms of breadth of coverage and mandate: for instance, the Spanish institution tends to focus only on the compliance with the legal commitments of decisions while the French institution conducts diagnostics that go well beyond the legal dimensions and include robust assessments of the fiscal, financial, economic and social impacts of many decisions. All rely on experts, even if to very different degrees and very different types of expertise. What they do have in common however is that they have mostly advisory or informative functions. They cannot act independently on their findings even if these demonstrate violations of commitments or clear signs of capture of public actors by private actors.

This paper is about the role of experts in representative democracy. We study the impact of explicitly linking the assessment of experts to the judicial system, by allowing judges to investigate corruption based on the cost efficiency as assessed by experts. Experts assess the cost efficiency of politicians, while judges assess their honesty. While we fully acknowledge a role for voters in making politicians accountable, this is not the point of our contribution. In representative democracy, processing information on cost efficiency is costly to voters (Maskin and Tirole (2004)), and there is room for other institutions to enforce the political contract derived from the vote. Our focus is about these institutions, and we therefore study a political system in which voters need politicians to manage the country, and elect these politicians based on a socially optimal platform.³

²When accused of corruption, political leaders often argue they were unaware of the illegality of what they did. In France, former president Jacques Chirac was convicted in 2012 for having used public servants under his authority to work for his political campaign. His line of defense was that he did not get private enrichment, and was thus doing nothing illegal. In Valencia, Spain, the Governor Francisco Camps had to step down after having received a €12.000 present (expensive suits) from a local businessman. He said he may have received presents but claimed this was not corruption (and was found not guilty in 2012). In the US, Kwame Kilpatrick, the former mayor of Detroit, managed to be reelected for a second term in 2005 in spite of public evidence of spending above \$200.000 of public money in private dining and wine. He then had to resign after being convicted of corruption and perjury, and sent to jail. In 2012, a Belgian local conservative politician, Alain Courtois, mismanaged a public procurement contract which was awarded to a company he is affiliated with. When journalists started to cover this fact, he organized a press conference to argue that it was involuntary that the bid had only been open to his own company. We provide further examples about infrastructure management in Spain in (Bell, Estache and Foucart (Forthcoming 2014)).

³We make this assumption to be able to assess the inefficiencies generated by bad assessment of politicians, even if

However, voters are unable to assess the quality of politicians. A politician is elected on a platform corresponding to certain commitments. We assume the platform can either be implemented at high or low cost. We show that a direct and explicit link between the assessment of the experts and the judiciary is necessary for a representative democracy to select competent politicians and deter them from stealing. Without this link, good judges may be either useless, or even worsen the problem.

There are two sources of inefficiencies in our setting. The first is adverse selection: some politicians are more competent than others to implement the platform (and those have lower opportunity cost of being in office). The second is moral hazard: competent politicians can extract rents by pretending to be incompetent. We model a dishonest politician as being competent but implementing the platform at high cost, while extracting a share of the difference. Adverse selection worsens the moral hazard problem. The more incompetent politicians are elected, the easier it is for a competent one to be dishonest.⁴

We then model a system of checks and balances where the assessment of politicians is imperfectly made by experts and judges. The experts are expected to reduce the information asymmetries and the social planner delegates the punishment for incompetence or corruption to judges. Experts have imperfect information about the costs of delivering a political platform while judges have imperfect information on whether a politician is honest. Judges only investigate cases where politicians are reported as inefficient (high cost). The experts' role is also thus to minimize the cost of judiciary mistakes. To be credible, the punishment level and type is set by the social planner ex-ante. This is because in equilibrium, if all politicians are competent and honest, all punishments are judiciary mistakes.

We find that the quality of the judges has an ambiguous effect: better judges have a direct positive effect against moral hazard, but increase the adverse selection problem, therefore indirectly worsening the moral hazard problem. This emphasizes the necessity of extracting the best possible information from experts: better experts solve the selection problems and make it easier to solve the moral hazard. For a given quality of judges, better experts decrease the necessary punishment to deter incompetent politicians to be dishonest. A crucial assumption for our result is thus that

policies were to be perfectly assessed.

⁴In the real world there are of course other reasons why politicians may fail to deliver such as random local or global events, including natural disasters or major global economic downturns. In this paper, we largely ignore them until the discussion of our policy implications. Still, there is no reason to believe that independent experts able to assess politicians would be unable to take circumstances into account.

judges are credible in being ‘too angry’ in equilibrium. We argue that a society that cannot credibly sustain ‘angry judges’, is unable to avoid a bad equilibrium in which corrupt and incompetent politicians seek offices.

This is not only a theoretical argument. Our proposal tries to reconcile two apparently contradictory demands for change in the real world. On one hand, there is persistent evidence that voters are concerned with the commitment and honesty of politicians. A growing share of the population of voting age feels that many politicians are not as well intended as they claim to be. For instance, in 2011 in Europe, according to a Eurobarometer survey which included a wide range of options,⁵ national politicians were the only profession associated with widespread corruption by a majority of Europeans (57%). Although in Nordic countries, the Netherlands and Luxembourg, the shares of doubtful people were below 35%, in Slovenia, Spain and Greece, 4 out of 5 citizens doubted the ethic of their politicians. Regional and local politicians hardly did any better across the board with 48% and 46% respectively. At the other extreme, recent social movements as different in their demands as the tea party and ‘occupy Wall Street’ in the US as well as right wing populist or the ‘indignant’ movement in Europe have received increased support based on their claim that too much of politics is ruled by elites disconnected from the preferences of their voters. Those anti-elite movements call for an increased role of politics, and of the choice of the people, de facto diminishing the role of self appointed experts, such as credit rating agencies, in democracy. Appointed experts assessing politicians based on the political platform they have been elected for allows for a reconciliation of these two apparently incoherent views of the role of politicians in current democracies.

The idea that political contracts could improve democracies is frequently put forward (see for instance the recent proposal by Gersbach (2008)). But not everything is contractible and measurable. This is the reason why we model the signals received by experts as only imperfectly informative of the quality of the outcome. This search for a signal is very similar to what is done when relying on benchmarking competition to assess the performance of regulated firms in the UK, some Nordic and Latin American countries or when comparing countries to assess their business or foreign investment climate. This boils down to generating an indicator that allows the evaluator to shift the burden of proof onto the assessed party, the politician in our case, but in a structured way and around indicators for which increased transparency is needed to achieve fair and efficient outcomes (several real world applications can be found in Coelli and Lawrence (2006)).

⁵Special Eurobarometer #374 over corruption, wave eb76.1, 2011 - TNS opinion and social.

The role of independent experts is indeed different from (and complementary to) the role of opposition politics with transparent media. The role of opposition politics is to emphasize what does not work in the incumbent policies, but also to impose its own platform. Thus, the signal obtained from well-functioning opposition politics helps the voter to choose the optimal platform, but does not necessarily identify inefficient politicians. From a strategic point of view, it may be beneficial for an opposition party not to communicate about inefficient politicians from the competing platform to decrease the quality of the outcome of this platform (and to communicate about the failure of the politics, not of the politicians).

The paper is organized as follows. We relate our work to the relevant literature in Section 2. Section 3 presents the model and the balance of power between elected politicians, experts and judges. It then presents the main tradeoffs between judiciary mistakes, deterring corruption and fostering the selection of good politicians. Section 4 discusses increased discretionary power for judges, allowing politicians to moonlight, and some of the implementation challenges of our system. We conclude in section 5.

2 Related literature

Our contribution looks into institutional failures that allow bad politicians to improve their career prospects, and therefore deteriorate the quality of the pool of politicians. We relate it to two broad groups of explanations for the election of *bad politicians*: (i) the existence of biases in the pool/supply of politicians (e.g. Caselli and Morelli (2004) or Kotakorpi and Poutvaara (2011)) and (ii) biases (or failures) in institutions (e.g. McCubbins, Noll and Weingast (1987), Myerson (1993), or more recently, Smart and Sturm (2006)).⁶

While the literature has identified many reasons for which the voting systems can interfere ex-ante with the election of politicians, our main interest here is to know how institutions could and should be designed to generate the right incentives. Underpayment is the most common problem cited: wrong salary scales or the introduction of penalties for bad politicians may reduce the pool of good politicians to pick from. This is what Gagliarducci and Nannicini (2013) recently showed for Italian municipalities. Similarly, Ferraz and Finan (2009) show that increases in salaries not only attracted more candidates, but also more educated ones in Brazil. Moreover, these better

⁶Alternative explanations include biases in voting behavior due to education, bounded rationality or corruption (Besley and Coates (1997), Besley and Coates (1998) or Caplan (2008)), and luck with economic conditions (Fair (1978), Leigh (2009) or Healy and Malhotra (2010)).

paid candidates stayed in office longer and delivered higher legislative productivity as measured by the number of bills submitted and approved. This is simply because the rewards or the penalties associated with the risks of being in politics compared well to those available in private jobs. It is however not a universal explanation for the lack of quality in the pool of potential politicians. Poutvaara and Takalo (2007) and Kotakorpi and Poutvaara (2011) for instance show with Finnish data that higher earnings did not necessarily lead to more qualified politicians, confirming the intuition provided by Mattozzi and Merlo (2008) who argue that an increase in the salary of a politician while in office may actually be a rent, and not the reflect of a higher outside option. Peichl, Pestel and Siegloch (2012) show that the claim that politicians earn significantly more in the private sector is not confirmed by data on German politicians.

One institutional option suggested in the literature to reduce the risk of having good potential candidates opting out of politics would be to allow them to moonlight as discussed in the recent survey by Geys and Mause (2011). If high-ability citizens can keep earning money outside of their job as politicians, they will be more likely to run for election. Of course, there are the risks of conflict of interest and the risks of shirking in politics when the outside job is very demanding. Looking at data on the members of the Italian parliament from 1996 to 2006, Gagliarducci, Nannicini and Naticchioni (2010) find that the outcome is a mixed bag allowing bad but committed politicians to mix with good but not fully committed politicians. Becker, Peichl and Rincke (2009) find an equivalent result for Germany. This suggests that allowing hybrid jobs may not be the solution.

Ensuring political accountability through a system of checks and balance across the three branches of government, transparency of information on politicians, their income, their behavior and their effectiveness and a matching system of penalties for unethical or incompetent behavior seems to be a much needed complement to the discussion of wage differences. Although political scientists have made significant contributions in ensuring our collective understanding of these dimensions of democracy, in practice, the evidence suggests that some of the key requirements are not always met (Maskin and Tirole (2004)). Djankov, La Porta and Lopez-de-Silanes (2010) find that only two countries in a sample of 175 countries have rules and practices of financial and conflict disclosure by politicians. Less than a third of the sample make disclosures available to the public. In this context, it is hard to see if penalties are assessed adequately. It is also hard to see how the basic tenants of democracy which allow bad politicians to be voted away can work.

As in the case of regulation, risks of capture, of incompetence and other perverse behaviors

in the delivery of a public service have been a common concern. Although they are usually not elected, regulators are in many ways similar to parliamentarians. They act on behalf of the public, managing budgets to make laws or regulations; compelling public and governmental compliance with their demands and punishing and fining when needed. A few lessons from the research on this topic are relevant here (Laffont and Martimort (1999), Stern (2010) or Estache and Wren-Lewis (2012)). The first and toughest one is that the performance of regulators is hard to measure and involves a strong degree of expertise. A second is that, however difficult and debatable performance indicators are, their transparency is needed to ensure the freedom of information that makes accountability more feasible. The third one is that the court system is essential to ensure accountability. Across countries, administrative or civil law as well as criminal law and its penalization tools are an essential dimension of the effectiveness of accountability systems.

3 The Model

Our main assumption is that voters elect politicians for the political platform they promise to deliver. The only restriction we impose on this ‘political contract’ is that experts can reveal and share at least ‘some’ information on how effective politicians are at meeting their platform. We model effectiveness as the cost to implement a platform, either high or low. In our specification, the risk of a suboptimal outcome comes from the fact that the quality and honesty of a politician are private information. Politicians are elected to implement a socially optimal platform, based on a parameter of popularity independent of their type (and that we do not model). Voters thus make a perfectly informed choice on policies, but cannot distinguish the type of a politician.

3.1 Players

Our formalization involves four categories of players: (i) the politicians decide to enter or not, and to be honest or not, (ii) the experts transmit an informative message on the ex post quality of politicians, (iii) the judges decide to punish politicians that are declared inefficient by experts, and for which evidence of corruption exist and (iv) the social planner defines the level of punishment to be given by judges to corrupt politicians.

a. Politicians

We categorize politicians in two types: Competent (C) or Incompetent (I). The politician's degree of competence is defined by their operating costs.⁷ Politicians decide whether or not to enter the election game and, conditional on entry, all politicians are elected with equal probability. Elected politicians all get the same wage (which also includes all the non-monetary rewards of being in office), but the opportunity cost of being in office (the outside option) is higher for competent politicians. The difference between this wage and the opportunity cost is identified as $w_C < w_I$.

A competent politician can implement the platform at low cost (θ_L), while the incompetent implements it at high cost (θ_H). A competent politician can also be dishonest and decide to implement the platform at high cost, while stealing a share s of the difference between the two, $S = s(\theta_H - \theta_L)$, with $s \in (0, 1)$. In this presentation, an incompetent politician stealing would be immediately identified, as his operating costs would be strictly higher than θ_H . Our results would be quantitatively unchanged if we relax this hypothesis, as long as it is easier to identify an incompetent politician stealing than a competent one (as long as incompetent politicians are also the less competent in stealing).

b. Experts

Whether the cost of implementing the promised platform is high or low can only be imperfectly measured. This comes from a combination of at least three elements. First, the benchmarking of policies is an imperfect process (it is often hard to compare political outcomes). Second, noise can affect the result (there are circumstances in which a good decision can lead to a bad outcome). Third, experts can be biased in favor of or against certain policies, and report more easily a politician as inefficient if the platform she has been elected on does not correspond to its own preferences.

We reflect this by assuming that a binary signal of the cost (θ_H, θ_L) of a given politician, accurate with probability $p > 0.5$, is transmitted by a first group of individuals called 'experts' to a second group called 'judges'. One can consider experts receive a perfect signal of the *probability* of the outcome to be bad, between 0 and 1, but have to report what they observe on a larger partition space, either 0 or 1. This method can be used to get an informative message from an expert even when her preferences are not identical those of voters (as in a Crawford and Sobel

⁷These can be driven by financial costs but also by costs resulting from the failure to deliver on promises or those resulting from picking the wrong policy or project, as observed ex-post.

(1982) framework).⁸ Still, the capacity of institutions to extract information from experts depends on whether they can be chosen to avoid political pressure, whether they have different biases, and whether those biases are not too high.

c. Judges

For each of the individuals reported as high costs by the experts, judges get an informative signal (corrupt, non-corrupt). This signal is accurate with probability $q > 0.5$. The court of judges finally punishes the politicians reported with a signal of high cost and guilt, by reducing their utility by an amount F .⁹ We assume this amount is decided by a social planner before the entry decision of politicians.¹⁰

d. Social Planner

The social planner defines F given the (common knowledge) values of q and p . The objective of the social planner is to deter the entry of incompetent politicians and to give the right incentives for competent politicians to be honest, while minimizing the expected cost of judiciary mistakes in equilibrium. This expected individual cost is given by $(1 - p)(1 - q)F$. Indeed, conditional to the fact that all politicians are honest and competent, judiciary mistakes are the cases where both signals are wrong. Proposition 4 shows how the potential aversion of social planner to risk matters. We define it as a social planner who prefers several small judiciary mistakes (low variance) over a large one (high variance) for a given expected value.

⁸Consider the following example. A court wants to take a decision $D(p)$, where p is the probability that the outcome of a given politician is a high cost. This probability is perfectly observed by an expert. However, she is known to be biased against the politician and wants to influence the decision taken by the judge to change it to $D(p')$, with $p' = p + 0.1$. If the court asks the expert to report the exact probability she has observed, the message sent will not convey any information (as the court expects a bias, the expert always wants to increase the signal, and there is no way to extract any information from it). However, if the court asks the expert whether or not the observed signal is in the interval $(0.5, 1)$, the expert will report $p' > 0.5$ when $p > 0.4$ and $p' \leq 0.5$ in the other cases. Therefore, as long as $E(p|p' > 0.5) > 0.5$, the signal conveys some information about the probability of a high cost. Note that, in this example, the probabilities are not necessarily symmetric, as there is no particular reason to have $E(p|p' > 0.5) = 1 - E(p|p' \leq 0.5)$.

⁹In section 4, we let the social planner delegate some discretionary power to the judges, by allowing F to vary depending on the aggregate signal observed by judges (the share of politicians reported with a signal of high costs). We show that it does not affect the conditions on p and q to solve both the moral hazard and the selection problem.

¹⁰Note that the structure of this independent prosecution courts matters. Van Aaken, Feld and Voigt (2008) show that if prosecutors are subject to the directives of government members, then these government members could misuse this power to prevent the prosecution of crimes committed by people like themselves. This therefore makes corruption more attractive.

3.2 Resolution

We solve the game by backward induction, and look for Subgame Perfect Nash Equilibria. The full timing of the game is described in table 1. The relevant stages of the game (where decisions have to be taken) are the following. In $T=0$, the social planner defines F (in this section, we assume F is a constant), in $T=1$ politicians make their entry decision, and in $T=2$ elected politicians decide whether to steal or not.

Table 1: Timing of the game

T=0	T=1		T=2		
<i>The constitution.</i>	<i>Parties offer political platforms.</i>	<i>Voters pick the socially optimal platform.</i>	<i>Elected politicians act.</i>	<i>The experts enter in action.</i>	<i>The judges enter in action.</i>
The two independent courts are constituted. Punishment F is set, to be paid by politicians found guilty in the last stage.	Politicians decide to seek office on a given platform or to take their outside option.	Voters get to assess the various platform and get to identify the one they prefer.	Elected politicians implement the preferred choice of their voters. They also get to decide to steal or not to steal.	The first court (experts) issues a signal on the cost effectiveness of each politician.	The second court (judges) punish the cost ineffective politicians they find guilty.

a. $T=2$: Moral hazard

A competent politician decides to be dishonest if and only if his expected utility is higher by stealing. The respective expected utilities of being honest or not are given by:

$$U_C(NS) = w_C - F(1-p)(1-q) \quad (1)$$

$$U_C(S) = w_C + S - Fpq \quad (2)$$

Therefore, the best response of a competent politician is not to steal if:

$$F \geq \frac{S}{pq - (1-p)(1-q)} \quad (3)$$

$$F \geq \frac{S}{q+p-1} \quad (4)$$

b. T=1: Adverse selection

A politician wants to enter if his expected utility is higher than his outside option. Hence, regardless of his decision to steal or not, a competent politician enters if:

$$F \leq \max\left\{\frac{S + w_C}{pq}, \frac{w_C}{(1-p)(1-q)}\right\} \quad (5)$$

The expected utility of an incompetent politician entering the game is:

$$U_I = w_I - Fp(1-q) \quad (6)$$

Thus, it is a best response for this incompetent politician not to enter when:

$$F \geq \frac{w_I}{(1-q)p} \quad (7)$$

c. T=0: The social planner

The objective of the social planner is to solve both the problem of adverse selection and the problem of moral hazard. This implies to define a value of F such that: (i) only competent politicians want to enter (ii) competent politicians do not want to steal.

Proposition 1 *There is not always a value of F such that both moral hazard and adverse selection can be solved. The conditions for such a F to exist are given by:*

$$w_C \geq \frac{S(1-p)(1-q)}{q+p-1} \quad (8)$$

$$w_C \geq \frac{1-p}{p}w_I \quad (9)$$

Proof. Condition (8) is the moral hazard problem. It implies that it must be possible to find a value of F such that competent politicians (i) want to enter and (ii) do not choose to steal. It is thus the combination of equations (4) and (5). Condition (9) is the adverse selection problem. It implies that it must be possible to find a value of F such that (iii) competent politicians that will not steal want to enter while (iv) incompetent politicians do not want to enter. It is thus a combination of equations (5) and (7). ■

The necessary levels of quality of judges and politicians are represented in figure 1. It is intuitive that good judges and experts are needed for the two conditions to hold. Condition (8) is

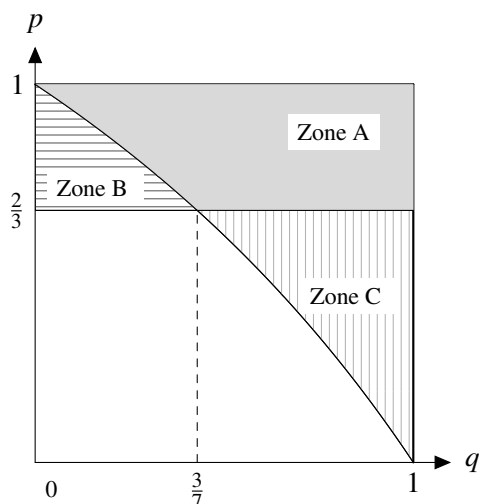


Figure 1: Conditions of existence of a F that selects good and honest politicians, with $\theta_L = w_C = 1$, $\theta_H = w_I = 2$, $s = \frac{1}{2}$.

fulfilled in zones A and C. If the condition is not fulfilled it is impossible to keep the competent politicians without giving them an incentive to steal. Indeed, the level of punishment that deters stealing is so high that the expected utility of a competent and honest politician - which has still some probability of being punished by mistake - would be lower than his outside option. Thus, condition (8) is necessary to deter stealing while not deterring the entry of competent politicians.

Condition (9) is fulfilled in zones A and B. If this condition is not fulfilled, it is impossible to keep the competent politicians, assuming they are honest, without also keeping the incompetent ones. This condition relates to the difference in the opportunity costs of competent and incompetent politicians. What determines the level of experts' quality necessary for this condition to be fulfilled is thus not that politicians are well paid, but that the outside option of a competent politician in the private sector is not too high in relative terms. In practice, high marginal taxation for very high levels of income in the private sector is likely to be considered one of the drivers of the incentives of honest and competent citizens to seek for political office. While the argument is that relative rewards matter, there is a limit to the instruments available to make the public sector attractive to the best. Excessively high taxes, for instance, will influence the pool of candidates in other ways, such as tax exile, which may also reduce the average quality of the pool of candidates. In section 4.2, we discuss an alternative policy: to allow elected politicians to work in the private sector (moonlighting).

The intersection of the two conditions is given by zone B. In this zone only, there exist levels of punishment such that only competent politicians are selected, and such that they do not steal.

This graph already gives an intuition of why judges and experts are not only substitutes, but also complements. Without good experts, even the best judges are useless (this is represented by zone C). The same reasoning does not hold with bad judges. With perfect experts ($p=1$), good judges are not necessary for the existence of an F deterring bad politicians.

Proposition 2 *If there exist values of F such that only competent politicians enter and do not steal, the equilibrium value F^* is decreasing in the quality of the signal sent by experts p .*

Proof. As the social planner wants to minimize judiciary mistakes, the equilibrium value of F is the smallest one such that only competent politicians enter (and do not steal). If such a value F^* exists, it is given by:

$$F^* = \max\left\{\frac{S}{q+p-1}, \frac{w_I}{(1-q)p}\right\}, \quad (10)$$

and both arguments of the function are decreasing in p . ■

The first argument of the function corresponds to the moral hazard. Better experts allow to deter more easily corruption by uncovering bad outcomes. The second argument of the function correspond to the adverse selection. Better experts make it more risky for incompetent politicians to enter, as they are more likely to be deferred to courts.

Proposition 3 *If there exist values of F such that only competent politicians enter and do not steal, the equilibrium value F^* is not always monotonic in the quality of judges q . In particular, increasing the quality of judges q increases the equilibrium level of punishment F when:*

$$q \geq \frac{pS + (1-p)w_I}{w_I + pS} = \hat{q}, \quad (11)$$

and decreases it for all other values of q .

Proof. The conditions determining the equilibrium value F^* when there exists a F that allows solving both moral hazard and adverse selection are identical to the ones described in equation (10). The first argument is decreasing in q while the second argument is increasing in q . Thus, the intersection of the two arguments is the inflexion point where increasing the quality of the judges increases the necessary level of punishment. This intersection is given by equation (11). If there is no value of q such that the second argument of equation (10) is lower than the first one, the impact of q is always to increase the equilibrium level of punishment. ■

The impact of the quality of judges and experts on the quality of elected politicians differs in many ways. Good judges (high value of q) are beneficial when the binding condition is to deter

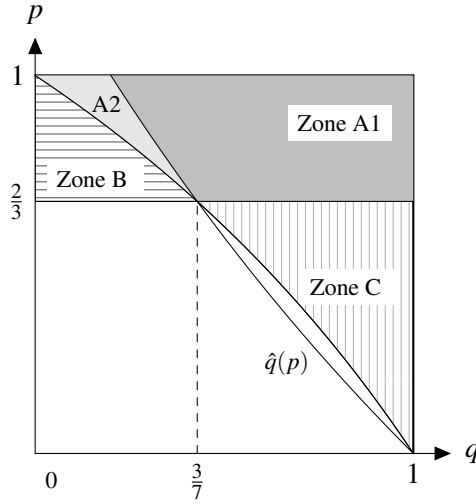


Figure 2: When good judges are bad, with $\theta_L = w_C = 1$, $\theta_H = w_I = 2$, $s = \frac{1}{2}$.

competent politicians from stealing. But it also increases the willingness of incompetent politicians to enter. Those, knowing they are likely to be found non-guilty (which they are) bear a lower risk of being in charge. The quality of experts is beneficial in all cases. It allows deferring both thieves and incompetent politicians to the judges. Increasing the quality of experts unambiguously allows decreasing the incentive-compatible level of punishment of those found guilty (and therefore the cost of a mistake by the judges). Increasing the quality of judges may imply increasing the level of punishment, to deter the incompetent politicians. The paradox is the following: better judges need to punish more to be efficient in solving the selection problem.

This proposition is illustrated in figure (2), where I split the zone where the selection of good politicians is possible (zone A) into two sub zones, A1 and A2, divided by the threshold value defined in equation (11), represented by the line $\hat{q}(p)$. In zone A2, increasing the quality of judges decreases the necessary level of punishment. This area corresponds to points where the quality of experts is high, and the quality of judges low. In the other zone, A2, increasing the quality of the judges decreases the necessary level of punishment.

The respective sizes of the different areas are specific to the choice of parameters in our example. However, we show in the appendix that the intuitions hold generally: the two constraints and the line $\hat{q}(p)$ intersect in the same point. To the left of this point, $\hat{q}(p)$ is above the two constraints, and to the right of this point, it is below the two constraints. The adverse selection constraint (the horizontal line) is below (resp. above) the moral hazard constraint to the left (resp. right) of the intersection point.

Whether good judges are desirable above the threshold \hat{q} is a matter of social preferences towards risk. We argue that a risk-averse social planner is one that prefers, all other things being equal, several small judiciary mistakes over a large one.

Proposition 4 *Increasing the quality of experts always decreases the social costs of judiciary mistakes. However, for a risk averse social planner, increasing the quality of judges above \hat{q} increases the social cost of judiciary mistakes.*

Proof. From proposition (2), we know that increasing the quality of experts decreases the optimal level of punishment. As it also decreases the expected probability of judiciary mistakes $(1-p)(1-q)$, it unambiguously decreases the social cost of those mistakes. The same reasoning holds for values of $q < \hat{q}$. However, when $q \geq \hat{q}$, the probability of a judiciary mistake decreases with q , while the punishment increases. The equilibrium expected judiciary mistake for a given competent and honest politician is given by:

$$E(M) = (1-p)(1-q)F. \quad (12)$$

Therefore, when $q > \hat{q}$, (12) becomes:

$$E(M|q > \hat{q}) = (1-p)(1-q) \frac{w_l}{(1-q)p}. \quad (13)$$

This rewrites:

$$E(M|q > \hat{q}) = \frac{(1-p)w_l}{p}, \quad (14)$$

and is independent of q . Therefore, increasing q above \hat{q} does not affect the expected judiciary mistake, but it increases the punishment and decreases the probability of receiving it. As the mean is preserved and the variance increases, a risk averse social planner should prefer $q = \hat{q}$ to any higher values of q . ■

Going back to figure (2), this proposition shows that a risk-averse social planner would prefer to limit the quality of judges, as long as the society remains in the zone A2. Increasing the quality of judges can benefit the society for values of q such that condition (8), the moral hazard, is more difficult to meet than condition (9), the adverse selection problem. Moreover, the socially optimal quality of judges is never above the intersection of the two constraints and $q = \hat{q}(p)$.

Considering the impact of good judges on the equilibrium level of judiciary mistakes in the presence of only honest and competent politicians may seem quite contradictory. Indeed, in equi-

librium, all punishments are judiciary mistakes. Conditional on being in the good equilibrium, the punishment is useless. The fact that a government can commit *ex-ante* to a level of punishment F in a sequential game it thus a key assumption for a good equilibrium to hold. For the US for instance, Cordis (2009) finds that, in general, states with higher levels of judicial independence (and more rigid constitutions) have lower levels of corruption per capita than states with the opposite characteristics.

Propositions 2 and 3 show that judges and experts are complements. This means that a social planner cannot ignore the role of experts if he wants the judges to be efficient. Proposition 4 adds another layer to this result. Even if good judges are available, the failure to provide a fair and transparent assessment of politicians' cost efficiency do not make them desirable. It is therefore rational for a social planner that do not benefit from a good mechanism to assess the cost efficiency of politicians not to appoint the most competent judges.

An intuitive way of avoiding judiciary mistakes could be to make the punishment level F decided by the judges conditional on the aggregate signals observed. If judges observe that there are incompetent and/or dishonest politicians, they could punish more. And therefore high punishment would be an out-of-equilibrium strategy. We show in the next section why this intuition does not hold.

4 Discussion: enabling the judges, moonlighting and some implementation challenges

In the first subsection, we discuss the possibility of increasing the discretionary power of judges. The second subsection presents three concerns on the practical implementation of the system presented here.

4.1 Enabling the judges

One of the paradoxes in the equilibrium where only competent and honest politicians enter, is that all punishments are judiciary mistakes. An intuitive way of avoiding that is to delegate the level of punishment to judges in $T=0$, given a precise rule. Denote by γ the number of bad outcomes as reported by experts. One could make F conditional on γ , with $F(\gamma < \gamma^*) = 0$ and $F(\gamma \geq \gamma^*) = F^+$. Then, if a social planner can define F^+ at a level that deters bad politicians, the equilibrium punishment is 0 when $\gamma < \gamma^*$ and there are no judiciary mistakes. But still, if too many experts

send the wrong signal, it can be that $\gamma \geq \gamma^*$, even without bad politicians. It is intuitive that such a mechanism would not hold with a large number of politicians as, given the uncertainty of the signal, the probability of each politician to be pivotal in crossing the threshold value γ^* is very small. However, we can even show that the condition would remain the same as in Proposition 1 with very few politicians. The following example, with two politicians, can easily be extended to any finite number.

We are looking for an equilibrium where the two politicians are honest and competent. We want to define a decision rule such that, given that one politician is honest and competent, it is only a best response for another competent and honest politician to enter. Consider a social planner wanting to avoid judiciary mistakes, and looking for a rule such that: $\gamma^* = 2$, $F(\gamma < 2) = 0$ and $F(\gamma = 2) = F^+$. So, the social planner only punishes if the experts signal a high cost for both politicians. The two participation constraints and the incentive compatibility now take into account both the probability to be found guilty and the probability to have $\gamma = 2$. It is a best response for a competent politician to steal if:

$$w_C + S - pq(1-p)F^+ > w_C - (1-p)^2(1-q)F^+. \quad (15)$$

It is a best response for an incompetent politician not to enter if:

$$w_I - p(1-q)(1-p)F^+ < 0. \quad (16)$$

And it is a best response for a competent politician to enter, conditional on being honest, if:

$$w_C - (1-p)^2(1-q)F^+ > 0. \quad (17)$$

Putting equations (15), (16) and (17) as functions of F^+ yields:

$$F^+ > \frac{S}{(p+q-1)(1-p)} \quad (18)$$

$$F^+ < \frac{w_C}{(1-p)^2(1-q)} \quad (19)$$

$$F^+ > \frac{w_I}{p(1-p)(1-q)} \quad (20)$$

One can immediately see that those three conditions are identical to condition (4), (5) and (7),

but divided by $(1 - p)$. Putting them together yields exactly the same conditions as with the fixed punishment, (8) and (9). Thus, the conditions for the existence of a punishment F^+ are identical to the conditions for the existence of F^* . The only difference is that the punishment is higher, but arises with smaller probability.¹¹

4.2 Moonlighting

A frequent proposal to address the selection problem of politicians is to allow moonlighting (politicians working in the private sector while elected). As shown by Gagliarducci, Nannicini and Naticchioni (2010), the impact of moonlighting can be disentangled in two parts: (i) it attracts politicians who used to be well-paid in the private sector, and those benefits more from the moonlighting and (ii) moonlighting politicians are less committed to their political activity.

In our model, this first part could be interpreted as increasing the rewards of being in office of competent politicians more than the one of incompetent ones. This translates in a reduction of the difference between w_l and w_c . The second part can be interpreted as a decrease in the cost efficiency of a competent and honest politician, implying an increase in θ_L . Therefore, in this context, moonlighting makes it easier to select the right politicians, at the cost of decreasing the quality of those politicians. It could prove a useful policy if (and only if) there is no value of F satisfying both conditions (8) and (9). A last point however is to make sure that moonlighting, by aligning the incentives of the politicians to those of private companies, does not increase the ability of the politician to steal. If this is the case, moonlighting increases S , making the effect on the selection of politicians ambiguous, and increasing the necessary value of F to deter corruption.

4.3 Implementation challenges

To implement the intuition built in our model, at least three further concerns should be addressed: (i) the risks that political systems converge towards dictatorship, (ii) the risks coming from the appointment of experts and judges and (iii) the risk of politicians focusing on low hanging fruits.

a. The risks of dictatorship

The role of the citizen is the most important: people decide the optimal platform, politicians execute, experts assess, and judges punish. One important restriction of our model is that we do not

¹¹With a logic identical to the one of proposition 4, making politicians risk averse would change the picture. The necessary level of punishment to deter deviations would increase, while the threshold level below which competent politicians want to enter would decrease.

allow citizens to have a preference towards incompetent politicians. We thus assume that the optimal government is composed by competent and honest politicians. This implies that there exists a common definition of what incompetent means. To repeat, our definition of competence is value-free: to be cost-efficient in implementing the democratically elected platform. We however assume that experts are willing to assess the actual efficiency of politicians to meet the objectives on which they have been elected that may not be equivalent to the objectives of experts themselves.¹² We already show in section 3 that while some biases are expected from experts, it is unlikely that they will not be able to transmit at least some information from their observations that will help voters in their future choices. But this is not true if the bias is very large: a fundamental disagreement on what a good policy is. Consider for instance that all experts agree that a certain policy Ψ is bad for the economy, as it yields very small short term benefits for very high long term costs. Assume that the citizens (say, the median voter) choose Ψ as the optimal policy. Those experts may be willing to influence the implemented policy by the choice of their method of evaluation. However, the only democratic outcome is Ψ and, regardless of the opinions of experts, Ψ should be considered as the optimal outcome by those who believe the voter is right. Any other implementation of our system is dictatorship from the experts.

b. The risks from the appointment of experts and judges

One of the most subtle risks is due to the specific process adopted to pick and appoint experts and regulators. In many countries, for many regulatory positions, there is a clear political affiliation. This means that experts and specialized judges have to be characterized by a combination of their skills and of their affiliation. This opens the door to political deal making and other forms of distortions in the *de facto* independence in the key actors of our benchmarking process. Besley and Coates (2003) present a similar argument by contrasting direct elections of regulators with political appointment. They explain that when regulators are appointed, regulatory policy becomes bundled with other policy issues the appointing politicians are responsible for. Ultimately, regulatory decisions end up reflecting the preferences of political parties and possibly special interests connected to these parties. They show for the US that elected regulators are more pro-consumer in their policies than appointed regulators. A more general solution may be to outsource expertise through a transparent international procurement process. It is however unlikely that many countries will outsource the enforcement of their laws to foreigners. In addition, it should be possible

¹²And that they are also willing to correct their assessment for wedges between promises and delivered outcomes for random events uncontrollable by the politicians

to assign expertise randomly to individuals cleared to belong to a pool of eligible experts identified as part of a transparent procurement process. Still, to repeat, known biases have their own advantages. When the bias is common knowledge, it is easier to make sure than one can extract *some* information from experts and judges. Political virginity does not necessarily mean no political bias, but sometimes simply means that the bias is unknown, which makes it even more complicated to extract information.

c. The risks of getting politicians to focus on low hanging fruits

A more unpredictable risk stems from the possibility that politicians will avoid to commit for anything which could negatively impact their performance. Unless voters put pressure on the potential candidates to take a transparent position of tough choices to make, it is very likely that the political agenda will be manipulated by the politicians. This brings us back to our assumption of voters perfectly informed of political platforms: benchmarking politicians can only go by pair with increased transparency of politics. This means, for instance, a more explicit identification of the potential tradeoffs in the presentation of the political platforms.

5 Concluding comments

This paper focuses on the need to strengthen modern democracies. Today, voters enjoy a formal right to pick their politicians usually based on broad political platforms. But the real right to pick specific policies is largely assigned to their supporting cast of younger politicians, experts and other advisers. Voters have very little control on the quality of these individuals and most importantly on the ability of specific politicians to surround themselves with the right people. As long as the outcomes are fine, we should not care. But in a context in which: (i) political platforms are increasingly complex and are often characterized by strong overlapping across political parties and (ii) evidence on political corruption or incompetence is growing and repetitive, it seems reasonable to look for solutions that reinforce the ability of voters to pick their political leaders with respect to their quality.

For the benchmarking to be effective, it is necessary to put in place a penalty system for politicians who seem not to be cost effective (with regard to their own political platform), and for which judges find evidence of corruption. This is where the input of experts matter. This input is however not likely to be perfect in practice since there are many dimensions of political platforms for which it is often difficult to separate incompetent politicians from cheaters. It is also often difficult to be

able to document the importance of unexpected shocks or complex interactions between workers and employer associations for instance to explain an under performance. This is why we argue that the role of the assessment of politicians is essential, not only as a source of information, but as part of a system of checks and balances. Experts are necessary to allow judges to reduce the uncertainties when assessing if a penalty is needed and how much of a penalty to impose. If judges do their job well, they will manage to punish corrupt politicians and deter incompetent ones. The main risk is that if their deterrence power becomes excessive, they may also deter the good individuals to enter politics. This is where the quality of experts matter. Good experts should be able to get rid of the incompetent ones by increasing the transparency of performances while the judges will then be allowed to focus on the corrupt politicians.

The proposal will be viewed by some readers as being aggressive towards the current political classes. But it seems to us it is not more aggressive than the growing share of the population that feels victimized by the consequences of corrupt and incompetent policy decisions. Moreover, for the clean and competent politicians, this may be good news since the expert assessments should reduce the blur managed by corrupt and/or incompetent politicians. It would seem rational for the good politicians to support any suggestion that increases transparency and reduce information asymmetries.

Ultimately, what the paper shows is that societies need to compare the risk associated with the inclusion of bad (corrupt or incompetent) politicians with those associated with a filtering system that leads to the exclusion of potential politicians that do not deserve to be excluded. In both cases however, it would make sense to at least rely on expert benchmarking to increase the transparency of the information available on politicians.

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Appendix

1 The different zones without specific assumptions on the parameter

Define for each value of q the three following functions: (i) $p_{mh}(q)$ is the value of p such that condition (8), the moral hazard, is fulfilled, (ii) $p_{as}(q)$ is the value of p such that condition (9), the

adverse selection is fulfilled, and (iii) $\hat{p}(q)$ is the threshold value such that increasing the quality of judges above q increases the necessary level of punishment to select competent and honest politicians.

The objective of this appendix is to show that the three functions intersect for a unique value of $q = q'$. Then, for all $q < q'$, $\hat{p} > p_{mh} > p_{as}$, and for all $q > q'$, $\hat{p} < p_{mh} < p_{as}$.

The point of intersection is computed by defining equations (8), (9) and (11) in terms of p .

$$p_{mh} = \frac{(w_C + S)(1 - q)}{w_C + S(1 - q)} \quad (21)$$

$$p_{as} = \frac{w_L}{w_C + w_L} \quad (22)$$

$$\hat{p} = \frac{w_L(1 - q)}{S(q - 1) + w_L}. \quad (23)$$

These three functions intersect for a unique value of q ,

$$q' = \frac{w_C + S}{w_C + S + w_L}. \quad (24)$$

As p_{as} does not depend on q , and as p_{mh} is strictly decreasing in q , it is straightforward that for all $q < q'$, $p_{mh} > p_{as}$ and for all $q > q'$, $p_{mh} < p_{as}$.

To finish the proof, it is thus enough to show that, for all values of q such that, $p_{mh} > p_{as}$, $\hat{p} > p_{mh}$, and conversely, for all values of q such that, $p_{mh} < p_{as}$, $\hat{p} < p_{mh}$. This can be done by plugging the value of \hat{q} found in equation (11) into condition (8),

$$w_C \geq \frac{S(1 - p)(1 - \frac{pS + (1-p)w_I}{w_I + pS})}{\frac{pS + (1-p)w_I}{w_I + pS} + p - 1}. \quad (25)$$

This expression gives all the values where p_{as} is below \hat{p} ,

$$p \geq \frac{w_L}{w_C + w_L}. \quad (26)$$

This condition is exactly the one that defines p_{mh} . This means that, for all values of p to the left (resp. right) of p' , \hat{p} is above (resp. below) p_{mh} .