Pandering to the Market? Revisiting Bureaucrats and Politicians with Career Concerns

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Abstract

This paper studies appointment vs election of agents who are motivated by career concerns in an environment where, realistically, agents, whether appointed or elected, face the same career options. We find in the baseline case where skills are not task-specific, and voters and the market have the same information about task performances that election always dominates appointment. If, however, information or relative preferences over task-specific skills/tasks differ between voters and the market, then "pandering to the market" by the bureaucrat can have unintended benefits for the voter, thus giving conditions under which appointment is preferred to election. This is the case even if politicians do not pander voters.

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1. Introduction

In some countries, notably the US, holders of high-level administrative office can be either appointed or elected, or some hybrid of the two. Well-known examples include US State Supreme Court judges and US state utility regulators.[1] This kind of administrative office also has other distinguishing features; the positions are usually term-limited, and, due to the complexity of the tasks carried out by the incumbent or political constraints, there is no performance-related pay; incumbents are paid fixed salaries. A natural question then is what are the determinants of whether such officials are appointed or elected. Related, there is an ongoing debate in the European Union for whether certain national policies, such as agricultural, judicial and economic policies, should be delegated to unelected officials.

In this paper, we contribute to the debate of elected versus appointed officials by using a "career concerns" model that captures these salient facts in a stylised way to compare the expected welfare implications of these two appointment systems. Specifically, our model has a two-period setting (capturing term limits) with officials receiving fixed salaries. Moreover, after the first period/term, the elected official must face re-election, whereas the appointed official (the bureaucrat) faces no such constraint, to stay in office. Furthermore, (potential) officials do not differ in their preferences, but they differ instead in their (unknown by everyone) ability/productivity. Finally, regarding career prospects: (a) incumbents face the same "playing field", i.e. job particulars, promotion opportunities and possible career paths, with the sole exception that the elected official must face re-election to hold the second-term office, and (b) moving to a different job/sector at the end of the first term (either voluntarily or due to no re-election) secures a wage which is equal to the information-contingent expected productivity (capturing a perfectly-competitive private labour market).

[1] State Supreme Court judges, depending on the state, are either elected, or selected by the state governor, or a modified version of the latter such as the Missouri Plan. The Missouri Plan (originally the Missouri Nonpartisan Court Plan, also known as the merit plan, or some variation) is a method for the selection of judges. It originated in Missouri in 1940, and has been adopted by several states of the United States. Similar methods are used in some other countries. Under the Plan, a non-partisan commission reviews candidates for a judicial vacancy. The commission then sends to the governor a list of candidates considered best qualified. The governor then has sixty days to select a candidate from the list. If the governor does not make a selection within sixty days, the commission makes the selection.

Two well-known recent papers, Maskin and Tirole (2004) and Alesina and Tabellini (2007), identify conditions under which appointment or election is best for the voters, using also models that capture the above salient facts. Namely, both models have a two-period setting with officials receiving fixed salaries. Moreover, after the first period, the elected official must face re-election, whereas the appointed official (the bureaucrat) faces no such constraint, to stay in office.

Maskin and Tirole (2004), henceforth MT, assume a "playing field", no differences in ability and a fixed outside-option which is inferior to staying in office for all officials.[2] They rely on differences in intrinsic motivation (i.e. policy preferences) to develop a *normative* theory of bureaucrats vs. politicians. In particular, "good" politicians share the policy preferences of the electorate, and "bad" ones do not. But, good politicians may take bad (but "popular") decisions in equilibrium in order to pander the electorate and be re-elected. In this set-up there is always an equilibrium where politicians do not always pander (including the case where there is never pandering). In such equilibrium (which, depending on the relative value of future office and the extend to which the incumbent's performance is monitored prior to elections, can be the unique equilibrium) elections will be better.

Alesina and Tabellini (2007), henceforth AT, develop a theory where officials have no intrinsic motivation to act in the interest of the voters and their ability is unknown to everyone, but differ in external motivation. Their premise is that bureaucrats are motivated by "career concerns", i.e. signalling a high level of ability, either to their current employer or the market, whereas politicians are mainly motivated by re-election. Thus, in their model, bureaucrats receive a performance-related pay after the first term (capturing either an internal promotion or a move to the private sector), whereas politicians move to the private sector only when they are not re-elected. Because politicians are re-elected only when their perceived level of ability is sufficiently high, the difference in external motivation boils down to a reward that is assumed linear in expected ability for the bureaucrat (as in the career concerns literature, Holmstrom, 1999, Dewatripont Jewitt and Tirole, 1999), but which is highly non-linear for the politician. In this framework, AT derive a number of results on the effects of imperfect monitoring and the dispersion of talent on the performance of the politician and bureaucrat. In the presence of imperfect monitoring, greater dispersion of talent leads to the bureaucrat unambiguously raising effort, but the politician decreasing it. Reducing the quality of monitoring reduces effort

[2]The bureaucrat thus stays automatically in office for the second (and last) term, while the politician runs automatically for re-election.

for both, eventually making elections the preferred choice *in terms of the officials' exerted effort.*[3] Alesina and Tabellini (2008) extend the analysis to multiple tasks, but impose the assumption of perfect monitoring.

In our view, MT, while an important first step in understanding the topic, it under-estimates the importance of "career concerns" for officials' incentives. AT, on the other hand, while an important step towards this direction, under-estimates the importance of "career concerns" for *elected* officials by not postulating a *level playing field* for all officials. Specifically, the bureaucrat is assumed to have access to (and prefer) an outside option where he will be paid according to his perceived ability, whereas the politician's outside-option is fixed and inferior to staying in office.[4] This is at variance with reality, where holders of high-level administrative office, *whether appointed or elected*, can leave to go to the private sector.[5] For example, Lim (2011) reports that of 150 district court judges in Kansas 87 are appointed, and 73 elected. The posts are otherwise identical; all judges serve 4-year terms, all can quit at the end of the term (or before), to return to the private sector, and all have the same promotion possibilities. Moreover, AT only focus on the effect of institutional form on effort and hence *selection benefits* of elections are ignored.

In this paper, we study instead a political agency model with "career concerns" and multiple tasks for the public sector incumbent, and where the outcomes of these tasks may be imperfectly monitored. Crucially, as we have already mentioned, we level the playing field for all officials. Thus, we assume (a) *both* the bureaucrat and the politician can quit at the end of the first period to go to the private sector and receive performance-related pay; and (b) *both* the bureaucrat and the politician are paid the same fixed salary when in office (as in MT, AT and Lim, 2011).[6]

[3] Kojima (2008) refines the results of AT on imperfect monitoring by showing that there is a threshold level of quality of monitoring below which politicians exert more effort than bureaucrats and above which bureaucrats exert more effort than politicians. He shows this result by demonstrating that a reduction in quality of monitoring leads to a higher reduction in effort for bureaucrats.

[4] In an Appendix, AT argue that their main conclusions carry over if, *conditional* on not being re-elected, politicians go to the private sector *and* get paid according to their perceived ability, as long as their valuation of office is sufficiently high.

[5] Diermier, Keane and Merlo (2005): "congressional experience significantly increases wages in post-congressional occupations".

[6] The judicial salaries (regardless of the appointment system) can be found in
http://www.ncsc.org/newsroom/~/media/files/pdf/
information%20and%20resou
rces

The paper first establishes a benchmark result; using ex ante voter welfare as an evaluation criterion, *election always dominates appointment*. This benchmark result holds for a general cost of effort function under a single-task, and under certain but commonly-deployed cost functions in the presence of multi-tasking. It also holds for Normally-distributed abilities and monitoring shocks under imperfect monitoring, while it holds very generally under perfect monitoring (not just under Normally-distributed abilities used in AT). This result is in striking contrast to that in AT. It is also not surprising given that the politician faces, on top of electoral accountability, the same incentives as the bureaucrat, implying that the politician has a greater incentive to supply higher effort and (not discussed in AT) that voters can replace low-ability (in expectation) incumbents.

The question then arises as to what can give a non-trivial theory of appointment vs election in this career concerns setting. First, following Heski, Jewitt and Leaver (2007), we suppose, realistically, that the market and the voters can observe task performance with different levels of accuracy. In this case, a form of "pandering to the market" can make the bureaucrat more attractive than the politician. This does involve the assumption that the voter values a task highly that he only observes more imperfectly than the market. This is not necessarily implausible; one could in fact argue that voters value, say, economic policy competence relatively highly, but do not know how to evaluate performance in this dimension, while the markets can. This reasoning could provide an argument in favour of bureaucrats when technical tasks such as regulation, law and agricultural policy are salient issues, and could contribute to the debate in countries such as UK for whether certain national policies need to be delegated to unelected experts such as the European Commission.[7] Second, we examine an environment of multidimensional skills, where voters and the market have the same information, but different relative preferences over tasks/skills. In more detail, we study the case of two tasks/skills where one dimension is valued relatively more but is monitored relatively imprecisely by both the market and voters. We consider the case when the market values only the first skill, and we show that in this case also a form of "pandering to the market" arises and can make the bureaucrat more attractive than the politician. It is quite plausible to treat the first task as economic policy in a period if international economic crisis and high national unemployment, and the second task as quality of public services. If these two are the main salient issues,

[7] See, for instance, http://blogs.spectator.co.uk/coffeehouse/2013/03/spectator-debate-britains-future-lies-outside-the-eu/

and http://www.bbc.co.uk/news/uk-politics-20448450

and http://debatewise.org/debates/784-the-uk-should-leave-the-european-union/

then this result could provide an argument in favour of unelected officials in periods of high economic turmoil, and could contribute to the debate in Eurozone countries, notably Greece and Italy, for whether national economic policies need to be delegated to unelected technocrats.[8] Interestingly, in both these scenarios of heterogenous information or preferences between voters and markets, imperfect monitoring of incumbent's performance takes place and voters are not pandered, and yet, in contrast to MT, unelected officials are preferred to politicians.

The organisation of the paper is as follows. Section 2 outlines the model, with the benchmark result derived in Section 3. The cases of asymmetric information or of task-specific abilities with asymmetric relative preferences between voters and the market are discussed in Section 4, and Section 5 concludes.

2. A Theoretical Framework

Our framework is a political agency model, where following Holmstrom (1999) and Dewatripont et al. (1999), the "agent", i.e. bureaucrat or politician, does not initially know his/her ability.

2.1. The Environment

In periods $t = 1, 2$, an incumbent in public office (politician or bureaucrat) produces a number of outputs at quality or quantity level x_{it}, $i = 1, ..., n$, which are observable but non-verifiable (and hence non-contractible) Output of good i depends on the effort input i of the incumbent, a_{it}, and also his ability parameter η_t and a random shock ε_{it} :

$$x_{it} = a_{it} + \eta_t + \varepsilon_{it} \tag{2.1}$$

The shocks ε_{it} are assumed mean zero, independent of each other and uncorrelated over time. If $\varepsilon_{it} \equiv 0$, there is perfect monitoring of an input; otherwise, there is imperfect monitoring. Following AT, we assume that period$-t$ ability η_t follows a moving average process i.e. $\eta_t = \theta_t + \theta_{t-1}$, where θ_t is a random draw from a symmetric distribution with zero mean, distribution H and density h, and support $(-\overline{\theta}, \overline{\theta})$ (where we allow for $\overline{\theta} \equiv \infty$). Symmetry and zero mean are assumed for convenience only. Assume that it is common knowledge that $\theta_0 = 0$.The case of task-specific abilities is studied in Section 4.2.

[8] See, for instance, http://www.bbc.co.uk/news/magazine-15720438
and http://www.economist.com/node/21538698
and http://www.nytimes.com/2011/11/11/world/europe/greece-and-italy-ask-technocrats-to-find-solution.html?pagewanted=all&_r=0

Finally, the incumbent's payoff in period t is

$$w_t - c(a_{1t}, ..., a_{nt})$$

where the cost of effort, c, is strictly increasing in each argument, and strictly convex.

There is a "single" voter. Voter has per-period payoffs over x_{it} and payment w_t to the incumbent of the form

$$u_t = \sum_{i=1}^{n} b_i x_{it} - w_t, \ b_i \geq 0 \tag{2.2}$$

The efficient allocation of effort in each period obviously satisfies $b_i = c_i(\mathbf{a}^*)$, where $\mathbf{a} = (a_1, ..., a_n)$, and c_i denotes the i^{th} derivative of c. Neither the politician nor the incumbent discount the future, for simplicity of notation. Voters can appoint either a bureaucrat and politician at the beginning of period 1. Both are paid a fixed wage w in both periods (i.e. $w_1 = w_2 = w$).[9]

Either kind of appointee has access to an "outside option" $\alpha\eta_2^e$ at the end of period 1, by quitting and going to the private sector, where η_2^e is the market's expectation of η_2 having observed x_1. Therefore, $\eta_2^e = \theta_1^e$, where θ_1^e is the market's expectation of θ_1 having observed x_1. The *only* difference between the two institutional arrangements is that the politician can be "fired" by the voters in an election at the end of period 1. In this way, we "level the playing field" between politicians and bureaucrats, as discussed in the Introduction.

The order of events is thus as follows. First, at the "constitutional table" at $t = 0$, the voter chooses between a politician and a bureaucrat.[10] Then, in period $t = 1$, (i) the incumbent chooses a_{i1} knowing $\theta_0 = 0$ but not θ_1; (ii) the voters/private sector observe x_{i1}, but not θ_1; (iii) in either case, the incumbent is paid the fixed wage w. Finally, if the incumbent is a politician, voters vote for the incumbent or a challenger, having observed x_{i1}. In period 2, the incumbent chooses a_{i2} not knowing θ_1 and θ_2, receives the fixed wage w, and the game ends. The challenger's expected second-period ability is zero. Finally, for the most part, to avoid unnecessary technicalities, we will assume either:

A1. *θ_t and ε_{it} are Normally distributed i.e. $N(0, \sigma_\theta^2)$ and $N(0, \sigma_i^2)$ respectively*

or

A2. *Perfect monitoring: $\varepsilon_{it} \equiv 0$.*

[9] Results are unaffected if the fixed wages were time-dependent.

[10] In either case, the politician or bureaucrat must get at least an ex ante payoff of zero, which is the (normailsed) payoff available in the private sector at the beginning of period 1. The fixed wage is thus assumed to ensure participation in the first period by the agent.

2.2. Relationship to the literature

If there is only one task ($n = 1$), θ_t, ε_{it} are Normal, the politician cannot quit, and there is no outside option for the politician (so that when he is fired, he gets 0), we have the baseline version of AT. If the politician cannot quit, but he is paid $\alpha\eta_2^e$ if he is fired, then we have the extended version of AT's model described in their Appendix B.[11] If there are two outputs ($n = 2$), there is perfect monitoring, i.e. $\varepsilon_{it} = 0$, and either $c(a_1, a_2) = c_1(a_1) + c_2(a_2)$ or $c(a_1, a_2) = c_1(a_1 + a_2)$, we have a two-period version of the baseline model of Alesina and Tabellini (2008). If the agent in the public sector always leaves for the private sector at the end of the first period, whatever his first-period performance (so the agent is only motivated by career concerns, i.e. the payment $\alpha\eta_2^e$) and $c(\mathbf{a}) = c(a_1 + .. + a_n)$, we have a version of Dewatripont et al. (1999). In contrast to MT, preferences of voters and officials are misaligned: the former would prefer an as high effort as possible, while the latter would prefer zero effort, all other things equal. Yet, as in MT, voters still face a selection problem: they prefer a high-ability official in the second period.

3. The Benchmark Result

We analyse first the benchmark case where voters and market care about all tasks, and have the same information about the agent's performance.

3.1. The Second Period

The second-period incumbent has no incentive to supply effort, and hence $x_{i2} = \eta_2 + \varepsilon_{i2}$. From the point of view of (the end of) first period, the expected second-period output is θ_1^e. Thus, voters prefer for the second term an agent with an as high first-period expected skill as possible. From now on, as $t = 2$ plays no further role in the analysis, we can simplify the notation by dropping period 1 subscripts from all variables. That is, $x_i = x_{i1}, a_i = a_{i1}$, $\theta = \theta_1$, etc.

3.2. Voter/market Updating

When x_i has been observed in period 1, the voters and the market form an expectation of θ, conditional on their information, i.e. $\mathbf{x} = (x_i)_{i=1}^n$, and their subjective expectation of the vectors of effort levels $\mathbf{a}^e = (a_i^e)_{i=1}^n$.

[11] To be precise, AT assume also implicitly that the bureaucrat's term in office is only for one period.

That is, under imperfect monitoring, voters conjecture a relationship between ability θ and output x_i of the form $x_i - a_i^e = \theta + \varepsilon_i$. The latter implies that, given a_i^e, observation of x_i is equivalent to observing "signal" $s_i \equiv \theta + \varepsilon_i$. Bayesian updating implies that

$$\theta^e = E[\theta \,|\mathbf{x} - \mathbf{a}^e\,]$$

If A1 holds, then the voter and market have n noisy signals about θ, $s_i = x_i - a_i^e = \theta + a_i - a_i^e + \varepsilon_i$ which are normally distributed with mean θ and variance σ_i^2, $i = 1, ..., n$, and so by a standard formula,

$$\theta^e = \frac{\sum_i \mu_i \left(\theta + a_i - a_i^e + \varepsilon_i\right)}{\mu_\theta + \sum_i \mu_i} = y + \sum_i \omega_i (a_i - a_i^e), \tag{3.1}$$
$$y \equiv \frac{\sum_i \mu_i \left(\theta + \varepsilon_i\right)}{\mu_\theta + \sum_i \mu_i},\ \omega_i \equiv \frac{\mu_i}{\mu_\theta + \sum_i \mu_i}$$

where $\mu_i = \frac{1}{\sigma_i^2}$ is the precision of the signal $x_i - a_i^e$, and $\mu_\theta = \frac{1}{\sigma_\theta^2}$ is the precision of the prior on θ. Note that from the point of view of the incumbent y is distributed Normally with mean zero and variance $\sum_i \omega_i^2 \left(\sigma_\theta^2 + \sigma_i^2\right)$.

Under perfect monitoring, i.e. A2 , voters conjecture a relationship between ability θ and output x_i of the form $x_i - a_i^e = \theta$. Note that in equilibrium, where $a_i^e = a_i$, information about θ is the same from each task. However, off-equilibrium, different tasks may provide different information about θ. To understand this, note that if the incumbent deviates from a prescribed equilibrium by exerting effort $a_i > a_i^e$ for task, for example, $i = 1$, then $\theta + a_1 - a_1^e > \theta + a_j - a_j^e$ for any $j \neq 1$. That is, task 1 indicates higher expected ability than all other tasks. Therefore, we will have to impose some assumption regarding the off-equilibrium beliefs about ability. We assume that the voter/market applies a convex combination on the information from the various tasks about ability. That is, if A2 holds, then

$$\theta^e = \theta + \sum_{i=1}^{n} \delta_i (a_i - a_i^e), \delta_i \geq 0, \sum_{i=1}^{n} \delta_i = 1$$

Note that this rule is consistent with equilibrium beliefs: $\theta^e = \theta$. It also includes as special cases, the scenarios when the voter/market disregards information of certain tasks. Furthermore, this rule is consistent with the beliefs about ability that emerge under imperfect monitoring with identical monitoring shocks across tasks, (i.e. $\varepsilon_i = \varepsilon$ for any i) in the limiting case of $\sigma_i \to 0$ (and hence the Normal distribution centered at zero approximating the Dirac distribution that places all probability measure on zero) for any i : simply set $\delta_i = 1/n$ for any i.

3.3. Choice of Effort

We focus on equilibrium choice of effort under A1, as the formulae under A2 are special cases of those under A1 (the case of perfect monitoring obviously has $y = \theta$ and $\omega_i = \delta_i$). If the incumbent is a bureaucrat, he anticipates that in period 2, he will get paid $\max\{w, \alpha\theta_1^e\}$ and so expects two-period utility of

$$V^B(\mathbf{a}; w) = E_{\theta,\varepsilon_1,\varepsilon_n}\{w + \max\{w, \alpha\theta^e\} - c(\mathbf{a})\}$$

Then, the bureaucrat will quit iff, under A1,

$$w \leq \alpha\left(y + \sum_i \omega_i(a_i - a_i^e)\right) \Longleftrightarrow y \geq \frac{w}{\alpha} + \sum_i \omega_i(a_i^e - a_i)$$

So, if we define F, f to be the c.d.f. and density of y, the expected payoff to the bureaucrat is

$$V^B(a_1, ..., a_n; w, a_i^e) = w + F(\frac{w}{\alpha} + \sum_i \omega_i(a_i^e - a_i))w + \alpha\int_{\frac{w}{\alpha}+\sum_i \omega_i(a_i^e - a_i)}^{\infty}\left(y + \sum_i \omega_i(a_i - a_i^e)\right)f(y)dy - c(a_1, ..., a_n)$$

So, in equilibrium, where $a_i^e = a_i$, the first-order conditions (FOCs) defining the optimal vector of effort levels for the bureaucrat, $\mathbf{a}^B$, in an interior solution, are:

$$\omega_i\alpha\int_{\frac{w}{\alpha}}^{\infty} f(y)dy = c_i(\mathbf{a}^B),\ i = 1, ..., n \tag{3.2}$$

As expected, the incumbent will, other things equal, exert higher effort on a task that is more closely monitored (i.e. with higher ω_i). Note also that raising the wage w de-incentivises agent, as it becomes more likely that the bureaucrat will not quit, and thus have no need to signal high ability.

Now consider the case of the politician. He is only re-elected if $\theta_1^e \geq 0$. So, he expects $\max\{w, \alpha\theta_1^e\}$ if $\theta_1^e \geq 0$ and $\alpha\theta_1^e$ otherwise. In terms of y, re-election occurs if

$$\theta^e = y + \sum_i \omega_i(a_i - a_i^e) \geq 0 \Longrightarrow y \geq \sum_i \omega_i(a_i^e - a_i)$$

So, the expected value of lifetime utility is

$$V^P(a_1;w) = w + [F(\frac{w}{\alpha} + \sum_i \omega_i(a_i^e - a_i)) - F(\sum_i \omega_i(a_i^e - a_i))]w$$
$$+ \alpha \int_{\frac{w}{\alpha}+\sum_i \omega_i(a_i^e-a_i)}^{\infty} \left(y + \sum_i \omega_i(a_i - a_i^e) \right) f(y)dy$$
$$+ \alpha \int_{-\infty}^{\sum_i \omega_i(a_i^e-a_i)} \left(y + \sum_i \omega_i(a_i - a_i^e) \right) f(y)dy - c(a_1, ..., a_n)$$

So, the FOCs, evaluated in equilibrium, where $a_i^e = a_i$, and using that $F(0) = 1/2$, are

$$\omega_i \alpha \int_{\frac{w}{\alpha}}^{\infty} f(y)dy + \frac{\omega_i \alpha}{2} + \omega_i w f(0) = c_i(\mathbf{a}^P),\ i = 1, ..n \tag{3.3}$$

Intuitively, as $\frac{\omega_i \alpha}{2} > 0$ and $wf(0) > 0$, the politician always puts in higher effort than the bureaucrat. The term $\frac{\omega_i \alpha}{2}$ measures the additional incentive to put in effort to enhance his external reputation in the event that he loses the election, and $wf(0)$ measures the additional electoral incentive for effort.

As in Alesina and Tabellini (2007, 2008) and Dewatripont et al. (1999), we assume in what follows that the second order conditions of the above problems are satisfied in equilibrium, i.e. when $a_i^e = a_i$ for any i, where $a_i's$ satisfy (3.2) for bureaucrats and (3.3) for politicians. For completeness, we state these conditions in the Appendix.

Now consider the following assumption, which will be used in the next Proposition. Consider an agent maximising $\sum_{i=1}^n p_i a_i - \lambda c(\mathbf{a})$, $p_i \geq 0$, and let the solution be $a_i(\lambda),\ i = 1, ..n$, where we suppress - for notational simplicity - the dependence of a_i on p_i.

A3. *If* $\lambda < 1$, *then, for all* $p_i \geq 0,\ a_i(\lambda) \geq a_i(1), i = 1, ..., n$, *and* $a_i(\lambda) > a_i(1)$, *for some* i.

This is quite a weak assumption that essentially assumes that (reductions in) all efforts are normal goods. It is satisfied for example, when the cost function is either additively separable, or a function of the sum of efforts, as in the previous literature. It also holds if the cost function has ray parallel gradients[12] or if there is only one task. We can now

[12] When the level curves of the cost function are radial expansions along any ray from the origin, it is easy to show that *relative efforts* do not change when the cost function changes to $\lambda c(\mathbf{a})$. This implies that, clearly, not all efforts can be lower, and so they must all be higher, when $\lambda < 1$.

Functions with ray parallel gradients are (a) homothetic functions that are nowhere ray constant (i.e. homogenous of degree 0), (b) homogenous of degree 0 functions, and (c) functions whose domain can be subdivided into disjoint cones such that on each cone either of the previous two cases applies. For more details see Lindberg et al. (2002).

prove the following:

Proposition 1. *If A1 (or A2) and A3 hold, then the politician always puts at least as much effort into all tasks, i.e.* $a_i^P \geq a_i^B, i = 1, ..., n$ *and some effort is strictly higher, i.e.* $a_i^P > a_i^B$*, for some* i*.*

Proof. In equilibrium, the FOCs can be written

$$\omega_i A^B = c_i(\mathbf{a}^B),\ i = 1, ..., n \tag{3.4}$$

$$\omega_i A^P = c_i(\mathbf{a}^P),\ i = 1, ..., n \tag{3.5}$$

where

$$A^B = \alpha \int_{\frac{w}{\alpha}}^{\infty} f(y)dy$$

$$A^P = \alpha \int_{\frac{w}{\alpha}}^{\infty} f(y)dy + \frac{\alpha}{2} + wf(0)$$

are positive constants independent of i. So, (3.5) can be rewritten as

$$\omega_i A^B = \frac{A^B}{A^P} c_i(\mathbf{a}^P),\ i = 1, ..., n$$

Thus, a switch from B to P is equivalent to a cost-function change from $c(\mathbf{a})$ to $\lambda c(\mathbf{a})$, $\lambda = \frac{A^B}{A^P} < 1$, and the result then follows from A3, taking $p_i = \omega_i A^B$. QED.

We emphasize that A3 is very weak, and so Proposition 1 is very general: any case that is not covered by Proposition 1 will necessarily feature level-cost curves that are not radial expansions along rays from the origin.

3.4. Appointment vs. Election

Recall that effort in the second period is zero, regardless of who is in office in the second period. So, with a bureaucrat, the voter gets an ex ante payoff

$$W^B = E_0[\sum_{i=1}^{n} b_i(x_{i1}+x_{i2})-2w] = \sum_{i=1}^{n} b_i a_{i1}^B + \Pr(w \geq \alpha\theta_1^e) E_0[\eta_2 \,|w \geq \alpha\theta_1^e] \sum_{i=1}^{n} b_i - 2w \tag{3.6}$$

where $E_0[.]$ denotes the expectation conditional on information at $t = 0$. Thus, $E_0[\eta_2 \,|w \geq \alpha\theta_1^e]$ is the expected second-period productivity of the agent on the assumption that he does not quit. This is because, in the event that the incumbent quits, he is replaced by an agent whose unconditional ability is zero.

With a politician, the voter gets an ex ante payoff

$$W^P = E_0[\sum_{i=1}^{n} b_i(x_{i1}+x_{i2})-2w] = \sum_{i=1}^{n} b_i a_{i1}^P + \Pr(w \geq \alpha\theta_1^e \geq 0) E_0[\eta_2 \,|w \geq \alpha\theta_1^e \geq 0] \sum_{i=1}^{n} b_i - 2w \tag{3.7}$$

where now $E_0[\eta_2 \,|w \geq \alpha\theta_1^e \geq 0]$ is the expected second-period productivity of the agent on the assumption that he does not quit *and* that he wins the election. Therefore,

$$W^P - W^B = \tag{3.8}$$

$$\sum_{i=1}^{n} b_i(a_{i1}^P - a_{i1}^B) + \{\Pr(w \geq \alpha\theta_1^e \geq 0) E_0[\eta_2 \,|w \geq \alpha\theta_1^e \geq 0] - \Pr(w \geq \alpha\theta_1^e) E_0[\eta_2 \,|w \geq \alpha\theta_1^e]\} \sum_{i=1}^{n} b_i$$

From Proposition 1, the *differential incentive effect*, $\sum_{i=1}^{n} b_i(a_{i1}^P - a_{i1}^B)$, is positive. It is also intuitive that the *differential selection effect*, the last term above, is positive, as an election allows the replacement of a relatively low-ability incumbent. This is easily proved. Specifically, as the expectation of η_2 conditional on any period 1 event is proportional (by a factor 1 here) to the conditional expectation of $\theta_1 \equiv \theta$, and using (3.1), we see that the differential selection effect is equal to,

$$[F(w/\alpha) - F(0)]\, E_0\left[\theta \,|w/\alpha \geq y \geq 0\right] - F(w/\alpha) E_0\left[\theta \,|w/\alpha \geq y\right] =$$

$$\int_0^{\frac{w}{\alpha}} \theta dF(y) - \int_{-\infty}^{\frac{w}{\alpha}} \theta dF(y) = -\int_{-\infty}^{0} \theta dF(y) =$$
$$-\int_{-\infty}^{\infty}\int_{-\infty}^{-\varepsilon} \theta dF_\theta(\theta) dF_\varepsilon(\varepsilon) > 0$$

where $\varepsilon \equiv \frac{\sum_i \omega_i \varepsilon_i}{\sum_i \omega_i}$, F_q is the Normal c.d.f of random variable $q \in \{\theta, \varepsilon\}$, the last equality follows from independence of ε and θ, and the inequality follows directly from the fact that θ being a zero mean random variable implies that $\int_{-\infty}^{-\varepsilon} \theta dF_\theta(\theta) < 0$ for any $\varepsilon \in \mathbb{R}$.

So, we have proved:

Proposition 2. *Assume A1 (or A2) and that A3 holds. Then, for any given public-office wage w, the voters always prefer the politician to the bureaucrat.*

Corollary. *If there is only one task, then, for any given public-office wage w, the voters always prefer the politician to the bureaucrat when A1 (or A2) holds.*

Clearly, this anticipated result is in striking contrast to that in AT. It follows directly from the "level playing field" and the beneficial selection effect of elections.

4. Pandering to the Market?

In this section we show that if the agent's cost function depends on the sum of efforts, we can get a form of pandering to the private sector. However, note that unlike MT, this kind of pandering (a) does not require asymmetric intrinsic motivation between officials, (b) is beneficial for the voters, and (c) is from the bureaucrat. Interestingly, note also that in the cases we will study below, the politician does not pander voters and the incumbent's performance is (imperfectly) monitored, and yet, in contrast to the prediction in MT, the bureaucrat is more attractive than the politician.

4.1. Heterogenous Information

Now, in the first period, the public sector continues to observe actual output, $x_i = \theta + a_i + \varepsilon_i$, but now the typical private sector employer observes $z_i = \theta + a_i + \phi_i$, where ϕ_i is a Normally distributed random error with variance $\tilde{\sigma}_i^2$. Note that we allow the market to be either better or worse informed about performance than voters. Now, the voters form their expectations as before, but the private sector's expectation about θ is (following analogous steps)

$$\tilde{\theta}^e = E[\theta \,|z - \mathbf{a}^e] = \tilde{y} + \sum_i \tilde{\omega}_i (a_i - a_i^e), \tag{4.1}$$

$$\tilde{y} = \frac{\sum_i \tilde{\mu}_i (\theta + \phi_i)}{\mu_\theta + \sum_i \tilde{\mu}_i},\ \tilde{\omega}_i = \frac{\tilde{\mu}_i}{\mu_\theta + \sum_i \tilde{\mu}_i},\ \tilde{\mu}_i = \frac{1}{\tilde{\sigma}_i^2}$$

Note that from the point of view of the incumbent $\widetilde{y}$ is distributed Normally with mean zero and variance $\sum_i \widetilde{\omega}_i^2 (\sigma_\theta^2 + \widetilde{\sigma}_i^2)$. The FOCs for effort in the two appointment cases are now given by

$$\tilde{\omega}_i \alpha \int_{\frac{w}{\alpha}}^{\infty} \tilde{f}(\tilde{y}) d\tilde{y} = c_i(\mathbf{a}^B),\ i = 1, ..n \tag{4.2}$$

$$\tilde{\omega}_i \alpha \int_{\frac{w}{\alpha}}^{\infty} \tilde{f}(\tilde{y}) d\tilde{y} + \frac{\tilde{\omega}_i \alpha}{2} + \omega_i w f(0) = c_i(\mathbf{a}^P),\ i = 1, ..n \tag{4.3}$$

where $\tilde{f}$ is the density of $\tilde{y}$. Then we have:

Proposition 3. *Assume A1 (or A2) and that marginal costs of effort are independent, i.e. $c_{ij} = 0$. Then, at a fixed public-office wage w, the voters always prefer the politician to the bureaucrat.*

Proof. The LHS of (4.3) is larger than the LHS of (4.2), independently of $\mathbf{a}$. So, by strict concavity of $c(.)$, the result follows. QED

But, as we highlight next, if the agent's cost function depends on the sum of efforts, we can get a form of pandering to the private sector. In the following example we adopt the assumption that the official faces an upper bound on the total effort she can exert. This assumption is used only to simplify exposition and make the argument cleaner; we could still derive a similar conclusion without this assumption, albeit in a somewhat more involved manner.

Example 1. $n = 2,\ \sigma_1^{-2} \to 0,\ \sigma_2^{-2} > 0,\ \tilde{\sigma}_1^{-2} > 0, \tilde{\sigma}_2^{-2} \to 0,\quad a_1 + a_2 \leq \overline{a},\ c(\mathbf{a}) = c(a_1 + a_2)$ with $c'(0) = 0$ and

$$c'(\overline{a}) \leq\ \alpha \int_{\frac{w}{\alpha}}^{\infty} \tilde{f}(\tilde{y}) d\tilde{y}$$

Then, from (3.1) and (4.1),

$$\omega_1 \to 1,\ \omega_2 \to 0,\ \tilde{\omega}_1 \to 0, \tilde{\omega}_2 \to 1$$

So, clearly, by inspection, the bureaucrat will only exert effort on the second task (i.e. "pander" the market). Given the assumption that the cost function is not very convex, i.e. $c'(\overline{a}) \leq\ \alpha \int_{\frac{w}{\alpha}}^{\infty} \tilde{f}(\tilde{y}) d\tilde{y}$ for any given w and $\alpha > 0$, we have that at optimum $a_2^B = \overline{a}$. Assuming that, for any given $\alpha > 0$, the wage is sufficiently high so that the politician's marginal return at optimum from focusing on the first task is greater than that from focusing on the second task, i.e.

$$wf(0) > \alpha \left(\int_{\frac{w}{\alpha}}^{\infty} \tilde{f}(y) d\tilde{y} + \frac{1}{2} \right)$$

the politician will exert effort only at the first task. The latter assumption and the one on the convexity of cost function implies that $wf(0) > c'(\overline{a})$, and hence the politician will exert maximum effort at the first task, i.e. $a_2^P = \overline{a}$. Now, recalling the net expected utility of the typical voter, (3.8), we clearly have that if b_2 is sufficiently larger than b_1 (and hence the politician does not pander the voters), then the voters strictly prefer the bureaucrat. In fact, this requires

$$b_2 - b_1 > \frac{\Delta}{\overline{a}} (> 0)$$

where Δ is the differential selection effect of elections. \\\

Note for this example to work, we need that (i) the voters value highly the task they observe relatively imprecisely; and (ii) the market observes this same task more precisely than the other task. This is quite a plausible scenario in some cases. An obvious example is when the task valued more by voters requires certain technical expertise, which the market is better in evaluating, such as economic policy. In this case, then, "pandering" to the market can benefit the voters.

4.2. Heterogenous Preferences

As in Dewatripont et al. (1999), Section 6, we consider here *multi-dimensional* skills. That is, first-period outputs are

$$x_i = \theta_i + a_i + \varepsilon_i,\ i = 1, ..., n$$

where $\theta_i \sim N(0, \widetilde{\sigma}_i)$Both voter and market observe $\mathbf{x} = (x_1, ..., x_n)$, so, unlike the previous case, voter and market have homogeneous information. But, now, voter and market have different relative *preferences* over task/skill dimensions.

In more detail, the market is assumed to pay

$$\tilde{w} = \sum_{i=1}^{n} \alpha_i \theta_i^e$$

where

$$\theta_i^e = E[\theta \,|\mathbf{x} - \mathbf{a}^e\,] = \omega_i \left(\theta_i + \varepsilon_i\right) + \omega_i(a_i - a_i^e)$$

and (with some abuse of notation) $\omega_i = \frac{1/\sigma_i^2}{1/\widetilde{\sigma}_i^2 + 1/\sigma_i^2}$. So, the official will quit if

$$\tilde{y} \equiv \sum_{i=1}^{n} \alpha_i \omega_i \left(\theta_i + \varepsilon_i\right) \geq w - \sum_{i=1}^{n} \alpha_i \omega_i (a_i - a_i^e)$$

A standard computation, as in the case of task-independent skill, implies that in equilibrium

$$\alpha_i \omega_i \int_w^{\infty} \tilde{f}(\tilde{y}) d\tilde{y} = c_i(\mathbf{a}^B), i = 1, ..., n \tag{4.4}$$

where $\tilde{f}$ is the density of $\tilde{y}$ (which is zero-mean normally distributes). Moreover, the voter still places weights $b_1, ..., b_n$ on tasks $i = 1, ..., n$. So, the voter will retain the incumbent if

$$\sum_{i=1}^{n} b_i \theta_i^e = y + \sum_{i=1}^{n} b_i \omega_i (a_i - a_i^e) \geq 0$$

where (with some abuse of notation) $y = \sum_{i=1}^{n} b_i \omega_i \left(\theta_i + \varepsilon_i\right)$. The FOCs for effort are now

$$\alpha_i \omega_i \int_w^{\infty} \widetilde{f}(\widetilde{y}) d\widetilde{y} + \frac{\alpha_i \omega_i}{2} + b_i \omega_i w f(0) = c_i(\mathbf{a}^P),\ i = 1, ..., n \tag{4.5}$$

where f is the density of y (which is zero-mean normally distributes). Then, resembling Proposition 3, we have:

Proposition 4. *Assume A1 (or A2) and that marginal costs of effort are independent i.e.* $c_{ij} = 0$. *Then, at a fixed public-office wage* w, *the voters always prefer the politician to the bureaucrat.*

Proof. The LHS of (4.5) is larger than the LHS of (4.4), independently of **a**. So, the result follows from the strict concavity of $c(.)$. QED.

But, as we demonstrate next, if the agent's cost function depends on the sum of efforts, we can again get a form of pandering to the private sector. As in Example 1, and for the same reasons, we assume next that the official faces an upper bound on the total effort she can exert.

Example 2. $n = 2,\ a_1 + a_2 \leq \overline{a},\ \ c(\mathbf{a}) = c(a_1 + a_2)$ with $c'(0) = 0$ and

$$c'(\overline{a}) \leq\ \alpha_1\omega_1 \int_w^{\infty} \tilde{y}\tilde{f}(\tilde{y})d\tilde{y}$$

Suppose also that the private sector only values ability 1, i.e. $\alpha_2 = 0$. So, clearly, by inspection, the bureaucrat will only exert effort on the first task (i.e. "pander" the market), and given that the cost function is not very convex (by the above assumption on $c'(\overline{a})$ for any given $\alpha_1 > 0$, $\omega_1 > 0$ and w) it will be at maximum level, i.e. $a_1^B = \overline{a}$. Assuming also, for any given ω_1, that ω_2 is high enough so that the politician's marginal return at optimum from focusing on the second task is greater than that from focusing on the first task, i.e.

$$b_2\omega_2 w f(0) > \alpha_1\omega_1 \left(\int_w^{\infty} \tilde{f}(\tilde{y})d\tilde{y} + \frac{1}{2} \right) + b_1\omega_1 w f(0)$$

the politician will exert effort only at the second task. The latter assumption and the one on the convexity of cost function implies that $b_2\omega_2 w f(0) > c'(\overline{a})$, and hence the politician will exert maximum effort at the second task, i.e. $a_2^P = \overline{a}$. Now, recalling the net expected utility of the typical voter, (3.8), we clearly have that if b_1 is sufficiently larger than b_2 (and hence the politician does not pander the voters), then the voters strictly prefer the bureaucrat. In fact, the required condition is analogous to the last one in Example 1 (the value of Δ differs only).\\\

Note for this example to work, we need as before that (i) the voters value highly the task which is observed (this time by everyone) relatively imprecisely; and (ii) the market does not value the task which is observed relatively precisely. A possible stylised example of such a scenario could be the case of economic policy in a period of international economic crisis and high national unemployment ("task 1") and quality of public services ("task 2"). Imagining a situation where these are the two main salient issues, it seems quite plausible to treat the former as a more important issue, with markets putting a higher relative weight on it than voters, and the latter issue/task being observed relatively more precisely. Then, "pandering" to the market can again benefit the voters and unelected

officials be superior to politicians.[13]

5. Conclusions

We contribute to the debate of elected versus appointed officials by using a "career concerns" to compare the expected welfare implications of these two appointment systems. Specifically, our model has a two-period setting (capturing term limits) with officials receiving fixed salaries (capturing non-contractability of performance in high-end public sector offices). Moreover, after the first period/term, the elected official must face re-election, whereas the appointed official (the bureaucrat) faces no such constraint, to hold office. Furthermore, (potential) officials do not differ in their preferences, which are noncongruent to those of voters, but they differ instead in their (unknown by everyone) ability/productivity. Finally, regarding career prospects: (a) incumbents face the same "playing field", i.e. job particulars, promotion opportunities and possible career paths, with the sole exception that the elected official must face re-election to hold the second-term office, and (b) moving to a different job/sector at the end of the first term (either voluntarily or due to no re-election) secures, regardless of the appointment mode, a wage which is equal to the information-contingent expected productivity (capturing a perfectly-competitive private labour market).

We find in the baseline case where voters and the market have the same information about task performances, and ability is not task-specific that, as intuition would suggest, election always dominates appointment, in contrast to AT. If, however, information or relative-preferences over task-specific skills differ between voters and the market, then "pandering to the market" can have unintended benefits for the voter, thus giving conditions under which appointment is preferred to election. This can be the case even if the incumbent's performance is (imperfectly) monitored and elected officials do not pander voters, in contrast to the predictions in MT. Interestingly, the cases we highlight when unelected officials are superior are consistent with economic policy being one of the main salient issues whenever markets can monitor economic policy performance better than voters, or in times of international economic turmoil and high national unemployment when economic policy performance is not relatively well-monitored by both markets and

[13]Note also that Propositions 3 and 4 do not extend to the case when level-cost curves are radial expansions along rays from the origin because relative marginal benefits are not the same for bureaucrats and politicians due to the market and voter information/valuations being different across tasks.

voters.

6. Appendix

6.1. SOCs

To state the SOCs, recall that $f(y)$ is the Normal density with zero mean and variance $\sigma_y^2 \equiv \sum_i \omega_i^2 \left(\sigma_\theta^2 + \sigma_i^2\right)$. Moreover, recall that $\mathbf{a}^j$ denotes the vector of efforts that satisfy the FOCs for $j = B, P$. The (sufficient) SOCs are then that

$$(-1)^k D_k^j > 0, k = 1, ..., n, j = B, P$$

where D_k^j is the following determinant

$$\begin{vmatrix} d_{11}^j & d_{21}^j & \dots & d_{k1}^j \\ d_{21}^j & d_{22}^j & \cdots & d_{k2}^j \\ \vdots & \vdots & \ddots & \vdots \\ d_{k1}^j & d_{k2}^j & \cdots & d_{kk}^j \end{vmatrix}$$

where

$$\begin{aligned} d_{ii}^j &= \frac{1}{\sqrt{2\pi}} \frac{\omega_i^2}{\sigma_y} Q^j \alpha - c_{ii}(\mathbf{a}^j), i = 1, ..., n \\ d_{iv}^j &= d_{vi}^j = \frac{1}{\sqrt{2\pi}} \frac{\omega_i \omega_v}{\sigma_y} Q^j \alpha - c_{iv}(\mathbf{a}^j), i \neq v, i, v = 1, ..., n \\ Q^B &= \exp[-\frac{(w/\alpha)^2}{2\sigma_y^2}] \\ Q^p &= \exp[-\frac{(w/\alpha)^2}{2\sigma_y^2}] - 1 \end{aligned}$$

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