Long Live the King?
Death as a Term Limit on Executives[*]

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Abstract

Can informal term limits place binding constraints on executives? And, are there conditions under which an electorate would forego formal term limits in favor of informal term limits? Formal term limits face three primary problems: they can be dispensed by powerful executives, they limit electorate discretion on term length, and they artificially shorten an executive's time horizon. This paper extends the literature on term limits by building a model of informal term limits which overcomes these deficiencies. Our model demonstrates that an electorate could use the death of a lifetime-appointed executive, based on their projected life expectancy, to enforce binding, informal term limits. Informal term limits would enable the electorate to exercise discretion in adjusting tenure lengths when considering the tradeoff between the expected benefits of regime stability, such as experience, and the expected costs of long tenures, including the possibility of tyranny. In addition, this informal term limit would be congruent with an executive's natural time horizon. Informal term limits would be most advantageous to an electorate fearful of both internal (tyranny) and external (military conquest) threats. A historical case study of ducal elections in late Middle Age and Renaissance Venice provides evidence of an electorate in this circumstance, the patricians of Venice, imposing informal term limits on their executives utilizing the projected life expectancy of ducal candidates at election.

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1. Introduction

Formal terms and term limits are commonly considered necessary to place binding length-of-tenure constraints on executives to help inhibit political entrenchment and, in the extreme, tyranny. However, these constraints impose mandated fixed term intervals that limit the tenure length of all leaders, including those whose rule benefits society. Is it possible for informal term limits to allow for both flexibility of tenure length while also placing binding length-of-tenure constraints? And, are there feasible conditions under which an electorate would forego formal term limits in favor of informal term limits?

The use of formal terms and term limits to constrain executives is a practice dating back to the earliest forms of democracy. While formal term limits can theoretically prevent political entrenchment by ensuring rotation in office and promoting electoral competition, the literature on the benefits of formal term limits is contested. Formal term limits are characterized by three primary weaknesses. First, formal term limits can simply be disbanded by politically powerful or ambitious executives. Second, formal term limits restrict the exercise of electorate discretion with regard to tenure length when weighing the expected benefits of regime stability, such as wisdom or political experience, against the expected costs of long tenure, particularly the threat of tyranny. This is especially true at the strict upper-bounds of formal term limits. Finally, formal term limits remove the electoral accountability mechanism through the imposition of a "lame duck" period, artificially shortening an executive's time horizon.[1]

Despite the mixed evidence on the effectiveness of formal term limits, few alternatives for constraining the length-of-tenure of executives have been advanced theoretically or detailed

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[1] There is some dispute about the welfare effects for voters of the loss of electoral accountability. Specifically, while a lame duck period may allow an incumbent to engage in selfish policies which harm voters, it is also possible that when prevented from running for reelection, an executive may ignore the short-sighted concerns of voters and pursue policies that are, instead, favorable over the long run. Besley and Case (1995a) provides an example of the former argument, and Smart and Sturm (2013) the latter.

in historical case studies. There are, however, a few notable exceptions. These include both self-imposed informal term limits and parliamentary votes of no-confidence. The evidence on the effectiveness of these alternatives, however, is also mixed.

We argue that, under certain conditions, a system of *informal* term limits on the executive can overcome some of the limitations and weaknesses of formal term limits while preserving their documented advantages. An electorate can impose informal term limits on life-time executives based upon the life expectancy of an executive candidate at the time of election. Electing an elderly candidate as executive offers the electorate a strictly-binding term limit: death. Informal term limits, through the choice of a candidate with the appropriate remaining life expectancy, can enable an electorate to exercise their discretion, ex-ante, in determining each incumbent's tenure length based on the beginning rather than ending date. This enables the electorate to weigh the projected benefits of regime stability against the costs of long tenure. Executives under such system will have a time horizon congruent with the electorate's perception of optimal length, proxied by the executive's natural lifetime.[2]

We present a simple theoretical model that suggests a short tenure is optimal when the expected costs of potential tyranny are relatively high. This holds except under circumstances where the expected benefits of regime stability are particularly large. While changing tenure lengths can be particularly costly under a system of formal term limits, this need not be the case when limits are imposed informally. With high risks of tyranny, it is in the electorate's best interest to elect executives that will serve for relatively short tenures, leading the electorate to favor elderly candidates with shorter life expectancies. Although this is also possible in systems

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[2] Leguizamon and Crowley (2016) explore the relationship between the effects of the loss of electoral accountability due to formal term limits and incumbent age, and provide evidence that formal term limits imposed on older incumbents have less of an effect on policy choice due to their facing an already-shortened time horizon.

with formal term limits, an informal system allows for longer terms during periods in which prolonged stability is preferred. In such cases, (e.g. long wars) informal term limits allow for the election of a relatively youthful executive with a longer expected tenure. Not only does electing an elderly candidate reduce the expected costs of tyranny by setting a binding term limit, it also reduces the probability of tyranny by decreasing the future stream of payoffs for an elected executive. While electing an elderly candidate does reduce the payoff to the electorate from regime certainty if the executive turns out to be good, informal term limits may also provide the electorate with additional benefits by removing the intermittent electoral incentive of the executive to cater to the short-run concerns of the electorate.

Informal term lengths based upon the life expectancy of an executive are useful for electorates mindful of both the internal threat of tyranny and the external threat of military conflicts, especially when the primacy of these relative threats is subject to frequent change. Informal term limits would help such an electorate check the internal threat of tyranny by shackling executives with the binding term limit of death. Yet, an informal term limit also enables such an electorate to exercise ex-ante discretion to adjust term length when deemed beneficial, such as when the external threat of military conflict is deemed to be paramount. As mentioned, an informal term limit would also provide the additional benefit of matching length-of-tenure with an executive's natural time horizon.

We provide a historical case study of informal term limits operating in elite-governed Middle Age and Renaissance Venice. Inveterately fearful of tyranny, Venetian patricians adopted and maintained governance institutions with strict formal terms and term limits on nearly every government position. The executive position, the doge, however, conspicuously lacked formal term limits. Venetian patricians adopted the practice of utilizing a ducal

candidate's life expectancy to impose binding, informal term limits on doges. Fearful of the

emergence of tyranny, Venetian patricians strongly favored relatively short ducal tenures,

electing elderly candidates perceived to be closer to their death, except during periods of

expected major military conflict, especially in the Venetian theater.[3] Anecdotal evidence and

historical data on the ages of elected Venetian doges and their tenure lengths support the

predictions of our model.

Thus, our paper contributes to the literature examining the governance institutions that

led to relative peace and prosperity in Middle Age and Renaissance Venice (De Lara, Greif, and

Jha 2008; Puga and Trefler 2014). We posit informal term limits–through their flexibility on

term lengths–as an additional contributor to Venetian prosperity. More generally, our case study

also contributes to the growing literature on the role of elites in historic and modern economic

development (Acemoglu 2008; Acemoglu and Robinson 2005, 2008, & 2012; Congleton 2007;

De Mesquita and Smith 2011; Leeson and Suarez 2016; North, Wallis, and Weingast 2009;

Salter 2015a & 2015b; Salter and Young 2017; Stasavage 2016).

More fundamentally, our model and historical case study contribute to the economic and

political science literature on executive term limits. We do not argue here, however, that

informal term limits based on the life expectancy of an executive is a panacea which can solve

the complex principal-agent problems embedded in contemporary democracy. Yet, we do

believe the evidence offered here provides an alternative that merits additional study, especially

as an alternative to the formal term limits in weak or failing democracies where the threat of

tyranny looms large.

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[3] Although the length of wars varied, there were periods of continuous fighting. For example, the *Italian Wars* is commonly known as a period of recurrent conflict for the control of Italy during most of the sixteenth century, and part of the seventeenth.

The remainder of the paper proceeds as follows. Section 2 reviews the mixed literature on executive term limits. Section 3 presents a theoretical model of optimal term lengths based on the relative costs and benefits of the possibility of tyranny and prolonged stability, respectively. Section 4 provides a historic case study of informal term limits operating in ducal elections in Middle Age and Renaissance Venice that allowed for the adjustment of term lengths as needed. Section 5 examines an alternative explanation, offered by historians, that the Venetian electorate were primarily electing elderly doges due to an appreciation for age and experience. Section 6 provides an assessment of the operation of informal term limits in Venice. Section 7 concludes.

2.   Formal Executive Term Limits: Theory and History

Democratic institutions, where a pre-determined electorate directly or indirectly elected an executive, were adopted primarily as a binding mechanism to help citizens replace, and protect against, the extractive and exploitative tendencies of monarchy or tyranny (Acemoglu and Robinson 2006; Congleton 2007; Fukuyama 2011; North, Wallis, and Weingast 2009; Tilly 2004; Voigt 1999). Suffrage by itself, however, can still give way to some of the same problems encountered in monarchies and/or empires, or even to tyranny itself. Indeed, while electoral accountability is an important component of democratic institutions (Adams and Kenny 1986; Barro 1973; Downs 1957; Smart and Sturm 2013), the simple election of an executive does not necessarily reduce the amount of power embedded in that position. Further constraints, including constitutions and checks and balances, are often necessary to better protect an electorate from tyranny (Brennan and Buchanan 1977, 1978, 1980, 2000).

Electoral accountability is common across different structures of representative democracy and usually consists of a system in which periodic elections allow voters to discipline

incumbents with poor policy track records by voting them out of office. Dating back to Downs (1957), and followed by Barro (1973), Ferejohn (1986), Adams and Kenny (1986), Lott and Reed (1989), Persson and Tabellini (2000), and others, economists and political scientists have modelled the behavior of politicians in these systems, typically in a principal-agent framework. The main lesson from this literature is that frequent electoral accountability can benefit voters if the politician's future payoffs from holding office are large enough to discourage their pursuit of policies that are not in the interests of voters.[4] While this may seem desirable, it can potentially lead to problems. One particular problem with democratic institutions is the tendency for the emergence of political entrenchment, potentially leading to corruption, nepotism, and even tyranny (Bardhan 1997; Levinson and Sachs 2015; Olson 1982; Saint-Paul, Ticchi, and Vindigni 2016; Shleifer and Vishny 2002).

While not consistently applied across or within democratic societies, formal term limits have often been adopted to help an electorate restrict the ability of an incumbent, especially an executive, to retain power for extended periods of time. As an important component of democratic institutions, the use of terms and term limits as a formal institution dates back to the ancient republics of Athens and Rome (Grofman 1996).[5]

The existing literature on term limits suggests that they offer three primary benefits. First, there is evidence suggesting that formal term limits increase ideological rotation in office, balancing policy (Maltz 2007; Petracca 1996). Second, when a society pre-commits to regularly changing the executive, it implicitly improves the political market by discouraging potential

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[4] Smart and Sturm (2013) provide a review of this literature.

[5] One of the primary reasons for why formal term limits have not been implemented more frequently, is that while most electorates would like to implement them, voters choose not to and continue electing senior incumbents since longer incumbencies translate into greater political clout. Political clout is especially important in legislatures since it increases the ability of the legislator to redirect resources to his or her district. Proponents of legislative term limits argue that they would reduce the interdistrict inequalities in legislative power, thus balancing redistribution of resources (Elhauge 1998; Krehibiel, Shepsle, and Weingast 1987; Petracca 1992; Gowrisankaran et al. 2008).

tyrants, instead encouraging executives with more moderate ambition. Since potential

challengers know that they will have an opportunity to win in the future, formal term limits

reduce the probability of even an ambitious candidate resorting to unconstitutional action.

Instead, political parties tend to focus on grooming future candidates for office, which enhances

political competition by increasing candidate quality (Ginsburg et al. 2011). Third, formal term

limits can help mitigate conflict among contentious factions, especially if there are redistribution

rewards to being in office (Friedman and Wittman 1996; Tabarrok 1996).

The literature has identified at least three possible weaknesses to formal term limits

which may limit their effectiveness. First, formal term limits can be readily disbanded by

politically powerful or ambitious government executives (Maltz 2007; Gingsburg et al. 2011;

Acemoglu et al. 2013; Corrales and Penfold 2014). This has inevitable political and economic

consequences, including increased populist bias in policy choices (Acemoglu et al. 2013).[6]

Second, a fixed formal tenure length does not necessarily correspond to the optimal tenure length

(Maltz 2007; Ginsburg et al. 2011). While imposing both terms and term limits on executives

can mitigate this problem by giving the electorate some intermittent electoral discretion, such as

in the United States, formal term limits still face fixed mandated terms and run up against strict

upper-bound limits on executive tenure length (Ginsburg et al. 2011). Third, is that formal term

limits necessarily decrease the potential for electoral accountability in that they remove the

possibility for reelection in an incumbent's final term. Since frequent elections play an important

role in helping an electorate hold incumbents accountable, eliminating that accountability in the

final term can have political and economic consequences. By eliminating electoral accountability

incumbents may be able to use their last term to pursue policies that are not in their voters'

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[6] See Müller (2007) for a discussion on inefficiencies in a model with politicians that are either populist or policy success-seekers.

interests but instead focus on personal gains (Cohen and Spitzer 1992 & 1996). On the other hand, some have argued that term limits can induce incumbents in their final term to focus on the long-run's public interest since they will not face reelection (Maskin and Tirole 2004; Gingsburg et al. 2011; Smart and Sturm 2013; Sieg and Yoon 2017).

This effect of term limits on the loss of electoral accountability has received the most scrutiny in the literature. Bender and Lott (1996) provide a survey of the literature on legislators, where results are mixed. For example, Lott (1987 & 1990) and Lott and Bronars (1993) show that how a legislator votes is unaffected by the possibility of reelection, though DeBaker (2012) finds some evidence of final-period shirking. Lopez (2003) argues that although legislative term limits will reduce tenure, they cannot be expected to affect expenditure policy. In terms of the executive, the empirical literature has used variation in gubernatorial term limits in the United States to study differences in fiscal policy outcomes during the executives' final term.[7] For example, Besley and Case (1995a, 1995b, & 2003) find that state tax and expenditure policy differs during periods where the governors faces a binding term limit, supporting the hypothesis that governors respond to a loss of electoral accountability by modifying their policy choice. Sieg and Yoon (2017) find term limits have a moderating effect on policy.

More directly related to the present paper, the literature shows that while term limits alter the incentives of office holders, the distortion is not uniform and depends on the incumbents' future prospects (Lott and Reed 1998; Besley and Case 1995a). For example, Laband and Lentz (1985) and Crowley and Reece (2013) consider how having a political "heir" can offset final-period effects. Leguizamon and Crowley (2016) find that the difference between first-and-final-term governors disappears among older politicians, as they already face an informal term limit

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[7]Besley (2006) and Alt et al. (2011) provide comprehensive reviews of this literature.

due to their advanced age. On the other hand, politicians with longer-term prospects choose the policies that will increase their reelection prospects before shirking in the final term.

Given these potential limitations, adjustments and supplements to formal term limits have been considered in the literature. These include adjusting the formal term length, weakening the power of the executive as tenure increases, and incentivizing executive retirement (Ginsburg et. al 2011).

More drastic alternatives to formal term limits have also been considered and implemented. Informal term limits, for instance, are one possible alternative to formal term limits. One example of informal term limits is an executive following self-imposed informal term limits as a norm. Until the passage of the 22nd amendment, executive term limits were self-imposed in the United States (Glaeser, 1997). As the United States case demonstrates with Franklin D. Roosevelt being elected to four terms, informal term limits offer the electorate the opportunity to suspend a previous precedent (in this case, a two-term maximum observed by every previous U.S. President) during periods where the benefits of regime stability are considered especially important (in this case, the successive crises of the Great Depression and World War II). A second alternative to formal term limits is a parliamentary vote of no-confidence system which enables a legislative body to remove an executive at-will from power (Popping and Wittek 2015; Williams 2015).[8] The evidence suggests, however, that votes of confidence motions, even in advanced countries, tend to have little success in removing executives from office (Williams 2011).

Thus, there could be substantial benefits to advancing additional informal term limit alternatives to formal term limits. In the following section, we provide a theoretical framework

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[8] Captain elections among pirates offer a surprising example of this type of system operating historically (Leeson 2007, 1067).

that motivates the importance of flexible term lengths, which we argue can be instituted through informal term limits based on the life expectancy of an executive candidate.

3. Theoretical Framework

We start with a system in which an electorate selects an executive to serve in a lifetime position with no formal term length or term limit. Given the lack of a formally defined term, the exercise becomes one of selecting an optimal term length defined in terms of the expected remaining lifetime of the prospective executive. Formally, suppose an electorate has a time horizon of T. The electorate selects an executive of a specific age to a lifetime appointment such that the executive is expected to serve for $t \leq T$. An elected executive has the potential to use his position to expropriate resources for his own benefits with probability π, but whether a specific executive holds such tyrannical ambitions or not is unknown at the time of selection. When selecting the executive, the electorate considers an expected utility function U which depends in part on benefits related to regime stability, $S(a)$ (which represents a stream of payoffs associated with regime stability, a function of the duration of an executive's tenure, a) with $S'(a) > 0$, that can be defined as

$$U(a) = S(a) - \pi E(a) \tag{1}$$

where $E(a)$ represents costs of expropriation associated with the rule of a tyrannical executive. Like stability, the cost of expropriation is increasing in executive tenure (due to increasing entrenchment) such that $E'(a) > 0$.[9] In other words, the longer is the duration of an executive's tenure, the larger will be both the benefits of stability but also the costs of expropriation (discounted by the probability π).

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[9] The psychological effects of positions of power, as well as the decline in mental capacity associated with age, may provide additional costs that increase with tenure (Fisher et al. 2014; Keltner, et al. 2003; van Kleef 2008).

The electorate then chooses t which determines the expected executive tenure, a, over the length of which they will receive payoffs from $S(a)$ and $E(a)$. In the event an executive is selected with an expected term of $t < T$ periods, then a new executive will be selected for the remaining $T - t$ periods. As such, the complete expected utility function to be considered when choosing the expected term of the initial executive is

$$V(t) = \int_0^t U(a) \, da + \beta(t) \int_0^{T-t} U(a) \, da \qquad (2)$$

where $\beta(t)$ represents a discount function. In other words, when considering a potential executive, the electorate chooses a candidate with an expected term length t with the expectation that another executive will be chosen to serve for the remaining periods of the electorate's time horizon, at the cost of "starting over" with respect to regime stability. Stated differently, the first integral in equation 2 represents the total expected utility associated with the tenure of an executive serving t periods. The second integral represents the utility associated with the subsequent executive who serves the remaining $T - t$ periods. Importantly, the executive's tenure (and thus the limits of integration) "resets" to zero once a new executive is elected for the remaining time horizon. This means that the electorate's optimization problem is in part one of balancing the tradeoff of benefits of regime stability, which increase in duration, against the potential for increasing expropriation. In other words, the electorate cannot "reset" the expropriation function without also returning the stability function to zero. The model can be extended beyond this two-executive case without significantly affecting the implications discussed below.

Taking the derivative of equation 2 with respect to t yields

$$\frac{dV}{dt} = U(t) - \beta(t)U(T - t) + \beta'(t) \int_0^{T-t} U(a) da. \qquad (3)$$

Equation 3 represents how total expected electorate utility changes as initial executive term

length changes, and can be interpreted in two parts. The first part of the equation represents the

difference in utility associated with selecting an executive expected to serve t periods and the

discounted utility associated with an executive serving the remaining periods, due to the fact that

the larger is t, the shorter will be the remaining time horizon (T-t). The remainder of equation 3

represents an additional cost of a larger t, specifically that it impacts the degree to which the

utility associated with the subsequent executive's rule is discounted. Utility maximization

implies the first order condition in terms of optimal term length, t^*,

$$U(t^*) = \beta(t^*)U(T - t^*) - \beta'(t^*) \int_0^{T-t^*} U(a)da \qquad (4)$$

and describes how the electorate arrives at its preferred informal term limit. Specifically, it

chooses a term length such that the expected discounted utility is equal across executives.

Equation 3 can be further interpreted to determine under which conditions choosing a

larger t will be utility-improving. For utility to be increasing in the chosen length of t (that is

$\frac{dV}{dt} > 0$),

$$U(t) > \beta(t)U(T - t) - \beta'(t) \int_0^{T-t} U(a)da , \qquad (5)$$

which is the straightforward result that the electorate increases its utility by selecting an

executive who is expected to serve longer so long as the utility associated with the initial

executive's tenure exceeds the expected utility from the rule of the subsequent executive. It is

important to note here that the larger is t, the smaller will be T-t, and so $\frac{dU(t)}{dt} > 0$ implies

$\frac{dU(T-t)}{dt} < 0$ and vice versa. As such, when considering the conditions under which selection of a

larger t will be utility-improving for the electorate (i.e. when to elect a younger politician with

longer life expectancy),it is sufficient to consider only the circumstances whereby $\frac{dU(t)}{dt} > 0$,

since they would imply the left side of inequality (5) was increasing while the right side of the inequality was decreasing.

From equation 1 above, we can relate how changes in the components of the electorate's utility function will affect this relationship between changes in utility and changes in term length. It is trivial to show that, ceteris paribus, utility is increasing in the benefit associated with stability. Similarly, holding constant the benefit of stability, utility is clearly decreasing in the costs of expropriation, which increase with tenure. Utility is also unambiguously decreasing in the probability of tyranny (π). However, this static description is incomplete since the benefits from stability and costs of expropriation are both increasing functions of regime length. In other words, because $S'(a) > 0$ and $E'(a) > 0$, increases in term length will necessarily increase both the stability and the potential costs of expropriation. As such, the relative rate of increase is crucial. Differentiating equation 1 with respect to t yields

$$\frac{dU}{dt} = \frac{dS}{dt} - \pi \frac{dE}{dt} \tag{6}$$

which shows that the marginal utility associated with an additional year of term length depends on the difference in the rates at which the benefit of stability and the cost of possible expropriation increase. Rearranging equation (6) shows the relationship between how electorate utility changes with respect to changes in the stability benefit function

$$\frac{dU}{dS} = 1 - \pi \frac{\frac{dE}{dt}}{\frac{dS}{dt}} = 1 - \pi \frac{dE}{dS}, \tag{7}$$

or the expected expropriation cost function

$$\frac{dU}{dE} = \frac{\frac{dS}{dt}}{\frac{dE}{dt}} - \pi = \frac{dS}{dE} - \pi. \tag{8}$$

Equations 7-8 show that the relative changes in costs of expropriation and benefits of stability matter. First, should the expected costs associated with expropriation increase at a faster rate

with term length than the benefit of stability, decreases in term length will increase utility. In other words, when the expected marginal costs of political entrenchment or tyranny outweigh the marginal benefits of regime stability, an electorate will prefer shorter executive tenures.

Put simply, should the expected marginal cost of expropriation be sufficiently high relative to the benefits of stability, electorate utility is decreasing in regime length and as such the electorate is more inclined to select executives with a shorter remaining life expectancy to effectively realize shorter executive tenures. In such a case where the risk from tyranny outweighs the benefits of stability, shorter executive tenures are lexicographically preferred. Counterintuitively, rather than searching for an energetic and healthy executive candidate, an electorate would favor lethargic and unhealthy executive candidates with relatively shorter life expectancies. Regardless of the relative benefits of stability or costs of expropriation, the higher the probability of tyranny, such as in a society comprised of discordant factions, the shorter the optimal term length. In an extreme scenario where all leaders are expected to be tyrants, the optimal electoral choice becomes the consistent selection of leaders near death, so that none may become entrenched and impose their tyrannical will for very long.

Conversely, should the benefits of stability increase with term length at a faster rate than the expected costs of expropriation, increases in term length will be utility-increasing, and the electorate will prefer an executive with a longer expected tenure. For instance, during a period of crisis where a society benefits more from steady leadership, the electorate is more inclined to select an executive with a longer-term expected tenure. Intuitively, this can be summarized by the proverb that one should not change horses in midstream. What's more, the static model above suggests that optimal tenure length depends on current perceptions of possible tyranny, marginal costs of expropriation, and marginal benefits of stability. To the extent that these can

vary from time to time, a system with formal, rigid term lengths will likely deviate from the electorate's optimal term length in any particular period.

As such, we argue that informal term limits based on the life expectancy of the candidate may benefit an electorate and thus be preferred over formal term limits. The informal term limit described here is a mechanism which grants the electorate a degree of discretion not available with formal term limits. Specifically, since the optimal term length depends on the relative size of the marginal benefits of stability and the marginal costs of potential tyranny, any changes to these necessarily affect the utility-maximizing term length. As such, the preferred executive—as defined by expected term length—will differ depending on the circumstances prevailing at the time of selection, such as the expectation of war. Further, the utility gains to the electorate from the use of such informal term limit will be greater the less stability there is in the ratio of marginal costs and benefits: since the optimal term length depends on this ratio, electorate discretion with regards to term length becomes more important if the relative costs and benefits are expected to change, especially if they change frequently and erratically. Naturally, if the relative marginal costs of tyranny and benefits of regime stability are constant and unchanging, a formal system of term limits would be workable. In such a world, the optimal term length would be well-defined and constant, and the formal term could simply be set at that t^*.

It is worth noting that a system of short but renewable terms may also be used to select optimal term lengths under varying conditions. For instance, incumbents may run for reelection indefinitely after one-or-two-year terms. In such a system, the electorate is free to vote the incumbent out when it feels the incumbent has exceeded the optimal length for the time in question. Yet, as discussed above, such a system does not prevent political entrenchment. The

system we propose suggests death as a term limit, naturally eliminating the possibility of entrenchment.

4. Death as an Informal Term Limit: Middle Age and Renaissance Venice

We provide a historical case study of informal term limits operating in Middle Age and Renaissance Venice to evaluate the implications of our model. The anecdotal evidence and historical data supports the implications of the theoretical framework above. Specifically, the Venetian electorate, fearful of the changing threats of both tyranny and being conquered by external militaries, rejected formal term limits on their executive, the doge, in favor of informal term limits. The Venetian electorate, fearful of tyranny, tended to elect elderly candidates to the dogeship, except in the presence of factors that would have adjusted the electorate's preferred executive term length, such as war or plague.

4.1 Informal Term Limits

Following a major military defeat, teetering on the verge of state bankruptcy, and a ducal assassination in 1172, the elite patricians of Venice assumed control of the government through the formation of the Great Council (Coggins and Perali 1998; De Lara, Greif, and Jha 2008; Lane 1966, Ch. 8; Madden 2003; Norwich 1982, 104-7). The Great Council, comprised of the elite patricians, amounting to 1 to 5 percent of the Venetian population, held complicated elections to select patricians from amongst themselves to serve in public positions (Greif and Laitin 2004; Lane 1973, Ch. 18). For instance, the doge was elected through a lengthy electoral process culminating in 41 patricians being elected to a selection committee charged with electing the doge (Coggins and Perali 1998; Crouzet-Pavan 2002, 198; Madden 2012, 170-2).

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These governance institutions were implemented and maintained explicitly because elite patricians, hailing from rival families, feared that a patrician or a group of patricians would undermine their republican institutions and turn Venice into a monarchy or oligarchy (Brown 1907, 52; Hazlitt 1900, 304 & 406-7; Gleason 1993, 117; Muir 1981, Ch. 7). Norwich (1982, 165-6) describes the Venetian fear of tyranny as an "old, almost pathological fear that one family, one individual even, might somehow gain control of the Republic." Crowley (2013, 6), for instance, writes that Venetians,

> resisted tyrannous solutions to government and constructed for themselves a republic, led by a doge, whom they shackled with so many restraints that he could receive no gift from foreigners more substantial than a pot of herbs. They were intolerant of overambitious nobles and defeated admirals, whom they exiled or executed, and devised a voting system to check corruption as labyrinthine as the shifting channels of their lagoon.

As an important component of their governance institutions implemented to prevent tyranny or oligarchy, Venetians maintained strict terms and term limits for nearly every public position (Brown 1907, 313; Fink 1945, 31; Grendler 1990, 45; Lane 1973, 109 & 257; Queller 1986, 46-7). Higher-level government offices often came with both short terms and strict term limits or rotation rules preventing patricians from serving subsequent terms in the same office (Fink 1945, 32; Norwich 1982, 283; Petracca 1996). For example, patricians were only allowed to serve one one-year term on the politically powerful Council of Ten (Bouwsma 1968, 61-2; Fink 1945, 32; Madden 2012, 188, 210, & 357-8). While lower-level government positions often had terms as long as two years, higher-level positions had terms as short as just one week (Norwich 1989, 283).

Despite their demonstrated appreciation for formal terms and term limits, as a lifetime appointment, the dogeship lacked a formal term of specific length (Brown 1907, 303-313; Fink

1945, 28; Finlay 1980, xv; Queller 1986, 46-7).[10] This is particularly conspicuous given that the elected doge had presiding and voting position in many of the most important governing bodies (Bouwsma 1968, 62; Finlay 1980, xv; Lane 1973, 96-7 & 267). Even with several governance institutions devised specifically to put checks on the doge's authority, patricians feared that a ducal candidate with charisma and energy could build enough political support to transition Venice into a monarchy (Bouwsma 1968, 61-3; Crouzet-Pavan 2002, 200; Hazlitt 1900, 406 & 439; Lane 1973, 100; Muir 1981, 20 & 256; Rose 1974). De Vivo (2007, 33), for instance, writes,

> Contemporaries and historians alike have found it hard to pinpoint the extent of his power. The nominal head of the state but severely confined in his every movement and choice, the doge derived an undeniable influence over policy making from his unique right to make proposals and deliver speeches in all assemblies and to do so with all the trappings of authority. As a contemporary remarked, the doge's power could be great, should he have been 'bel parlatore' [good talker].

This fear was well-founded, as several doges, despite Venice's governance institutions, were still able to exploit the political authority of their position. Ferraro (2012, 55), for instance, writes, "Some of the doges succeeded in wielding extensive authority…" Most notably, Doge Marin Falier launched a failed attempt to murder the patricians to establish himself as a monarch (Brown 1907, 79-106; Ferraro 2012, 55; Horodowich 2009, 107; Norwich 1982, 223-229; Lane 1973, 181-3; Ruggiero 1980, 3-4).

The historical evidence suggests that informal term limits were adopted explicitly because Venetian patricians feared tyranny. Maranini (1931) (as translated by Coggins and Perali 1998, FN 10) writes, that it was commonly held in Venice that a doge should be of "a mature age in order to reduce the riskiness of an election for life."

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[10] The nine elected procurators of Venice, who served as the treasurers of the charitable trusts of the church of San Marco, also held lifetime appointments (Finlay 1980, xvi; Lane 1973, 98). While membership to the Great Council, the main governing body of 500-2,500 patricians, was a lifetime appointment that was hereditarily passed on, it was not an elected position.

In addition to the threat of tyranny, Venetian patricians faced intermittent military threats. Between 1172 and 1797, Venice had 35 major military conflicts.[11] These major military conflicts spanned nearly 150 years, over 20 percent of this period. Of these 35 major military conflicts, 14 of them occurred in Northern Italy, the Adriatic Sea, or the areas immediately surrounding Venice, representing a direct military threat to the patricians of Venice.

Rather than set formal terms and term limits, the Venetian patricians, facing both internal and external threats subject to frequent change, adopted the practice of placing informal term limits on executives.

4.2 Flexible Term Lengths: Venice's Case for Short Executive Tenures

Our model implies that when the expected marginal costs of political entrenchment or tyranny outweigh the marginal benefits of regime stability, an electorate will tend to prefer shorter executive tenures. There is substantial evidence suggesting that the Venetian patricians utilized the age and health of ducal candidates at election to impose informal term limits on doges. As an informal norm, Venetian patricians primarily elected elderly, and even childless, candidates to the dogeship (Coggins and Perali 1998, 717-18; Finer 1999, 1005; Finlay 1980, Ch. 3).[12] According to Finlay (1980, 125),

> It was…rare for doges to be elected before the age at which most popes were already dead. Between 1400 and 1600, the average age of the doge at election was 72, an average of 18 years older at election than the pope, the only other political figure of the period who assumed office at an advanced age.[13]

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[11] We classified military conflicts as major if they appeared in Phillips and Axelrod's (2005) *Encyclopedia of War*.
[12] If a doge did have male heirs, his heirs were automatically barred from holding public office in Venice or Venetian territories (Brown 1907, 60). Furthermore, male heirs were also forbidden from holding ecclesiastical benefices (Norwich 1982, 532).
[13] It is important to note, that the governance system of the Catholic Church also created a tendency for the selection of elderly candidates for pope (Tullock 2005, 94-5).

Finlay (1980, 126) goes on, "By custom, high office was generally closed to those considered "young men" (*giovani*)." As Grendler (1990, 56) writes, "The advanced ages of senior Venetian officeholders was truly remarkable in any epoch and extraordinary in the Renaissance when the average life expectancy may have been less than forty years." Crouzet-Pavan (2002, 200) concludes, "…doges tended to die in their beds…"

Doges were sometimes elected at such an elderly age that they were often unable to carry out their normal ducal responsibilities, let alone exploit their ducal authority. Electing elderly doges, with limited mental and physical capabilities, thus not only prevented tyranny-prone lengthy tenures, but also limited the ability of doges to become effective tyrants. For instance, when Nicolò da Ponte, elected in 1578 at the age of 87, found it difficult to stay awake at meetings, a contraption was affixed to the ducal throne to prevent him from sliding out of his chair (Norwich 1982, 501). Records from 1509 indicate that Doge Leonardo Loredan looked, "as usual half dead" during official functions (Norwich 1982, 400). Doge Antonio Grimani, elected at the age of 87 in 1521, is described as having been "indecisive, doddering, and before long frankly senile" (Norwich 1982, 437).

Younger, and arguably even more qualified, candidates were often passed up in favor of elderly ducal candidates explicitly due to their youth (Davis 1962, 88; Finlay 1980, 133). For instance, Norwich (1982, 259) writes of 76-year-old Doge Michele Morosini, elected in 1382,

> …he had as a rival candidate the surviving hero of the Genoese War, Carol Zeno.

> This last suggestion has caused much puzzled speculation among modern historians, who have tended to suppose that Zeno was passed over as a result of an insignificant reversal he had suffered shortly before the end of the war. A far likelier explanation is that he was still a comparatively young man – not yet fifty – and an active one.

In 1578, 61-year-old Giacomo Soranzo was rejected as a candidate for the dogeship due to having "insufficient gray hair" at the age of 61 (Finlay 1980, 133). The patricians, instead, turned to 87-year-old Nicolò da Ponte. Having the electorally undesirable characteristics of youth and favorable health at age 63, in 1618, ducal candidate Agostino Nani reportedly exaggerated his age and attempted to disguise his good health (Finlay 1980, 133). The patricians didn't buy the ruse and instead elected Nicolò Dona (age 79), and then, after Doge Dona died in the same year, Antonio Priuli (age 70).

An assessment of the available historical data supports the anecdotal evidence. Using a unique dataset compiled from a variety of historical sources, we find that from 1172 to the end of the dogeship in 1797, the average age of the doge at the time of election was 68.88 with an average tenure of 7.52 years (Figure 1).[14] This is exceptional during this time when 40-years-old was considered an old age (Gilbert 1967; Herlihy 1974; Finlay 1980, 125). The elected doge was elderly even in comparison to other elected positions with formal terms and term limits in Venice. For instance, the median age, at election, of an elected ducal councilor, member of the Savi Grandi, Council of Ten, or Zonta in Venice between 1540 and 1609, was 55 (Grendler 1990, 56).

[Figure 1]

We plot out the ducal tenure frequency in Figure 2. Between 1172 and 1797, 35.37 percent of ducal tenures were 3 or less years and over 75 percent were 10 or less years. There is also a distinct difference in tenure length between ducal tenures prior to 1172 (697-1171), when doges were not elected by the patricians in the Great Council, and after 1172 (1172-1797), when doges

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[14] Birthyear and age data were unavailable for four of the 82 doges from 1172 to 1797 (see Figure 1).

were elected by the patricians in the Great Council.[15] Whereas, as reported above, the average

ducal tenure was 7.52 years after 1172, the average ducal tenure was 12.16 years and the average

age of a doge at election was 38.8 years.[16]

[Figure 2]

4.3 Venice's Case for Long Executive Tenures

Our model also implies that when the marginal benefits of regime stability exceed the expected

marginal costs of expropriation, an electorate will prefer an executive with a longer expected

tenure. Many of the historical exceptions to short ducal tenures demonstrate that it allowed

Venetian patricians to suspend the norm of electing elderly doges when the expected benefits of

regime stability outweighed the potential costs of tyranny. This was particularly true during

periods of war when a more youthful candidate was presumably desired since the external threat

of military conquest loomed larger than the internal threat of tyranny.

For instance, 53-year-old Doge Giovanni Dolfin was elected in 1356 on the eve of the

1357-1358 Hungarian-Venetian War after Giovanni Gradenigo (elected at age 70) died. Just

prior to the election, the Hungarian King Lajos had taken military action to claim all the

Venetian-held territory in the eastern Adriatic (Norwich 1982, 231). In another example, Doge

Francesco Foscari was elected in 1423 at the age of 50 due to the military threat of Milan during

that time (his predecessor, Tommaso Mocenigo, was 71-years-old when he was elected). As

Brown (1907, 175) writes, "the section of Young Venice was all eager for military enterprise and

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[15] From 726 to 1032, doges often named their own successor (Norwich 1982, 182). From 1032 to 1172, the Doge's Council, a much smaller version of the Great Council, selected the doge (Lane 1973, 90-1; Madden 2012, 108; Muir 1981, 251-4 & 279).

[16] While tenure length is available for all doges, birthyear and ducal age at the time of election is unavailable for 28 of 38 doges from 697 to 1172, so the average age of election during this period must be interpreted modestly.

a land empire. Their moving spirit was Francesco Foscari, still in the prime of a vigorous

manhood…" and that "The party of war determined to secure, if possible, the election of their

chief to the dukedom." Foscari's election "virtually gave an affirmative answer to the question of

war with Milan" (Brown 1907, 176). Over his tenure, Foscari oversaw four separate major

military conflicts with Milan (Phillips and Axelrod 2005). In another example, with the allied

papal and Holy Roman Empire armies having just conquered several northern Italian cities,

including Milan, the youthful Andrea Gritti was elected doge after Doge Antonio Grimani (87-

years-old when elected) passed away (Noriwch 1982, 435-438). While youth and vitality were

normally undesirable electoral traits, Gritti was elected precisely because "he carried his sixty-

eight years lightly and boasted that he had never suffered a day's illness in his life" (Norwich

1983, 438) and had the diplomatic experience the patricians thought was necessary to negotiate

with Charles V.

     Major military conflicts were, of course, not equal. Many of Venice's wars were fought

far from home. Rather than a threat to national security (or the wellbeing of the patricians), they

were waged in far flung corners of Venice's trading empire and thus likely did not represent a

direct military threat to the Venetian patricians. We look exclusively at ducal tenures during

major military conflicts that had major battles, according to Phillips and Axelrod (2005), within

Northern Italy, the Adriatic Sea, and the encompassing locations, such as Dalmatia and Friuli,

surrounding Venice. These conflicts often represented direct threats to the Venetian patricians.

For instance, Piertro D'Oria, the military commander of the Genoese who were allied with

Hungary during the 1378-1381 Hungarian-Venetian War, had orders to "…not leave in it

[Venice] a single noble [patrician], great or small; all were to be taken and sent to Genoa,

excepting only those whose heads were demanded by the Lord of Padua" (Carden 1908, 31).

From 1172-1797, the average ducal tenure during major military conflicts in the Venetian

theater was 9.56 years and the average age at election was 63.56 years-old, compared to an

average tenure of 7.27 years and an average age at election of 69.58 outside of major military

conflicts in the Venetian theater (Figure 3). While the evidence must be interpreted modestly

since ducal elections did not often correspond with the years of military conflicts, it does suggest

that early signs of an impending military conflict, such as atrophying diplomatic relations,

fomenting hostility, and military buildups, did factor into the tenure-length calculus made by the

Venetian patricians.[17] We do exclude doges elected four or more years after the start of the war

from our calculation, since these elections were unlikely to have been influenced by wars so far

ahead in the future. The data, in conjunction with the anecdotal evidence, suggest that Venetian

electorate included the possibility of war and especially the threat of military conquest over the

foreseeable future into their tradeoff of regime stability versus the threat of tyranny when

selecting ducal tenure length.[18]

[Figure 3]

There is some anecdotal evidence to suggest that Venetians also tended to favor the election of

younger doges during military conflicts even when they fell outside of a major war in the

Venetian theater. For example, Bertucci Valier was elected doge in 1656 at the relatively young

age of 60 because Venice was engaged in the Candian War (1645-1669), fought primarily in

Crete, and the consensus among the patricians was that a younger doge was necessary (Norwich

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[17] Although our sample of doges elected during major conflict is small, a simple, one-tailed, t-test for difference of means in Figure 3 suggests that the average age of doges elected outside of military conflict is statistically greater than the average of those elected during major military conflict in the Venetian theater (t-statistic 1.76 with p-value of 0.041). Note that this result is not robust when accounting for the presence of potential heteroscedasticity, but the p-value is close to the 10 percent significance level at p-value=0.136.

[18] In Figure 3 we use age if elected within 3 years of the beginning of a conflict. We also consider alternative cutoffs, in which doges are elected within different time frames since the start of a conflict. Those alternatives reveal similar trends (see Appendix A).

1982, 558; Phillips and Axelrod 2005). In another example, ducal candidate Marco Corner, elected doge in 1365 at the age of 70, had to convince the electorate that his advanced age would not limit his ability to serve as doge during a minor military conflict, the 1363-1366 Revolt of Crete (Norwich 1982, 238-9).

There were other factors, outside of war, that may also have influenced the tenure length calculus of Venetian patricians at times. Pietro Grandenigo, for instance, elected doge in 1289 at the age of 38, was elected during a period when the citizens of Venice were threatening revolution by attempting to reassert their right to have a voice in the selection of the doge. The patricians, concerned with losing their control, knew they needed "to find a man who should be at once devoted to their cause and yet of commanding power" (Brown 1907, 62).

Major disease outbreaks also had the potential capacity to influence electors. For instance, during the measles outbreak (and famine) of 1556, the patricians elected 67-year-old Lorenzo Pruili. Lorenzo was the younger brother of the subsequently elected Girolamo Priuli, who was, at that time, age 70. Given that Lorenzo's elder brother was subsequently elected doge after the untimely death of his brother, it can be surmised that the electorate specifically selected the younger Priuli brother, either due to his relatively more youthful age or his experience, during a crisis period of rampant measles and famine, "which took a heavy toll on the population" (Norwich 1982, 460). A separate example is provided by the black plague of 1630-1631, which was devastating to the point that the patricians found it difficult to even find suitable candidates for public offices (Braudel 1979, 467; Lane 1973, 430). In the ducal election of 1631, the patricians turned to 65-year-old Francesco Erizzo (replacing the deceased Doge Nicolò Contarini who was 76-years-old when elected) in an election that stands out as extremely rare in

Venice history for both for how quickly Erizzo was elected and for how strong the consensus was in his favor (40 to 1) (Norwich 1982, 542).

5. The Experience Hypothesis

Rather than the model of informal term limits we advance, historians tend to adhere exclusively to the hypothesis that the informal norm of electing elderly candidates was primarily driven by the Venetian patricians' appreciation for age, experience, and wisdom in ducal candidates (Bracciolini 1450[1997], 142; Davis 1962, 88; Finer 19999, 1005; Norwich 1982, 283). For instance, Grendler (1990, 55 & 56-57) writes,

> Probably no political system in history rewarded age and experience more than the Venetian Republic. Similarly, no state required its leaders to serve a longer apprenticeship before assuming power.
>
> …The Venetian ethos prized seniority and continuity. The Republic preferred great age over youth, wisdom over brilliance, stability over innovation.

Or, as Finlay (1980, 126) argues,

> "…old age had enormous prestige in the patrician republic. The sculpture of an elderly and prudent Solomon was placed near the entrance of the Ducal Palace, representing not only justice of the Old Law but the wisdom of years…"

To the extent that age and wisdom *can* be positively correlated, we believe this is a plausibly valid interpretation. However, we believe the historical evidence provides little support for this alternative hypothesis as an exclusive explanation of the norm of selecting elderly executives for four reasons.[19]

First, a substantial amount of the anecdotal evidence presented above supports our contention that the Venetian patricians were explicitly weighing the benefits of regime stability,

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[19] Note that the theoretical framework above considers future expected stability, while this hypothesis refers to current continued stability. A wise, but also elderly, elected doge could prolong current levels of stability, but could not carry it for long, due to age limitations.

including wisdom and experience, against the potential costs of tyranny. The historical evidence suggests that more qualified, younger, candidates were often rejected explicitly because they were perceived to be a tyrannical threat, primarily due to their youthful age. This suggests that age was often a lexicographic preference compared to *actual* wisdom and experience.

For instance, despite being recognized as an accomplished military commander and thus an excellent candidate for the dogeship, Giacomo Tiepolo was rejected as a candidate for the dogeship in 1289 due to his popularity among common Venetians, as well as the consideration that he represented a possible monarchial threat since he was related to two previous doges (Norwich 1982, 174).

Furthermore, Venetian patricians often specifically elected doges they perceived as lacking the ability and ambition to wield the potential power of the office and would, instead, operate as a ceremonial head-of-state (Brown 1907, 52, 59, & 303; Hazlitt 1900, 272; Lane 1973, 270; Norwich 1982, 157, 512, & 531-2). They also constructed governance constraints specifically meant to shackle the political power of the doge, suggesting that they were more concerned with constraining tyranny than with enabling wise elders to lead (Brown 1907, 55). Rather than designing governance institutions for doges of age and wisdom to do great good, the evidence suggests that they were designing governance institutions for potentially tyrannical doges to do the least amount of harm.

Second, we offered historical anecdotes and data demonstrating that it was precisely when experience and qualification were arguably most important, during wartime or other calamities, that the electorate often suspended the norm in favor of more youthful and ambitious candidates. If age and experience were valued by the Venetian patricians, it would be reasonable

to assume that during a crisis they would have instead turned to ducal candidates of age and experience.

Third, the literature on executive age suggests that open, economically progressive societies, such as Middle Age and Renaissance Venice, tend to elect younger, not older, candidates. In his cross-sectional study of gerontocracy, Gutmann (1988, 89-90) finds that while age and experience in leaders may be stable in closed, static, and more traditional societies, open societies embracing technological change tend to elect younger leaders. Similarly, Tullock (2005, 96) notes that competitive electoral systems should tend to elect younger, not older individuals, to leadership positions.

Fourth, it is not clear that age necessarily has a predictable positive relationship with experience and wisdom that would reliably contribute to better executive leadership. To the contrary, the evidence suggests that aging leaders tend to exhibit diminished mental capacity (Fisher et al. 2014; Keltner et al. 2003; van Kleef 2008).

Rather, we interpret the utilization of age as an informal term limit in Venice as a norm adopted specifically to enable the electorate to place a binding term limit on the doge and to enable the exercise of electorate discretion. The historical evidence—as well as the imposition of formal term limits throughout the rest of the Venetian government—suggests strong skepticism of long executive tenures. This norm, as opposed to a formal rule, enabled the electorate to weigh the expected benefits of regime stability against the expected costs of the problems associated with long tenures, including tyranny.

6. Assessing the Consequences of Venice's Informal Limits

In combination with other constraints provided by Venetian governance institutions, informal term limits proved quite effective in limiting the threat of tyranny while also allowing the Venetian patricians to elect more youthful and ambitious doges to ward off external military threats when necessary. Note that such practice may not have been costless, as Venice may have missed the opportunity to elect effective, young leaders during peaceful times. As a consequence, the position became primarily ceremonial. As Hazlitt (1900, 272), writes, of the dogeship between 1630 and 1688, "...the personality of the head of the State was lost in the administrative system, of which he made part, and which now demanded strong individuality of character to enable the occupant of the throne to stand out as a distinct unit." Of the 1699 to 1762 period of Venetian history, Hazlitt (1900, 304) writes,

> The succession of Doges during this interval exercised no perceptible influence over the course of events. Not their deficiency in merit and character, for they were without exception tried servants of their country in various capacities, but the changed relations of the throne to the constitution, and the absence of any crucial episode and commanding personality…

Similarly, Lane (1973, 270) writes,

> Doges who were effective leaders became increasingly rare. As in many other elective monarchies in which oligarchs chose the monarch, the men chosen were rarely of such a ding as to increase the power and prestige of the office. When they were elected, most of the doges were already at what is not considered an age for retirement.

Yet, compared with the benefits, these potential costs may not have been substantial. The election of elderly, mostly incapable, doges reduced volatility in the executive power, providing additional security.

Indeed, despite the tendency for democracies to be overthrown by powerful executives (Tullock 2005, 129), Venice did not succumb to tyranny. Middle Age and Renaissance Venice became known for having an equitable rule of law and commercial institutions that fostered economic prosperity (De Lara 2001 & 2008). Both population data and anecdotal records suggest

that Venice became one of the wealthiest cities in all of Italy and Europe during this period (De Long and Shleifer 1993; Epstein 2000, 90-3; Trentmann 2016, 28).

As a byproduct, the informal tendency to elect elderly patricians unintentionally helped mitigate succession conflict in Venice. While Venetian governance institutions attempted to prevent the emergence of faction, rival patricians often vied for the dogeship following the death of a doge. The complex electoral process for the doge, however, often ensured compromise was necessary for electoral success (Coggins and Perali 1998; Finlay 1980, 156-8; Lane 1973, 110-111; Madden 2012, 171-2; Muir 1981, 280). For instance, the final ducal electoral process was tedious and time-consuming, with ducal elections often lasting several weeks (Bouwsma 1968, 229; Finlay 1980, 141-3; Lane 1973, 113; Madden 2012, 171-8; Norwich 1982, 167 & 506).

Amidst the rival factions, an elderly candidate with a shorter expected tenure, and thus a relatively low expected payoff from tyranny, often became the candidate that rival patricians would compromise on (Coggins and Perali 1998, 718). As Tullock (2005, 97) writes, "If the current dictator is elderly, it is obvious that one doesn't have to wait too long for his replacement. Thus, the ambitious man has no strong motive for fighting his way up right now." Given that younger candidates from one patrician family represented a greater potential tyrannical threat to members of another rival family, according to Lane (1973, 270), "not infrequently contenders compromised on someone they thought would die soon and give them another chance to get elected themselves." For example, when it came to the election of 82-year-old Enrico Dandolo as doge in 1192, Madden (2003, 93), writes,

> What is certain, though, is that each elector must have anticipated that by selecting Enrico Dandolo there would be another election very soon. No one could have expected him to live for very much longer; surely no one anticipated his surviving another thirteen years. It is safe to say, then, that the electors made what they believed was a short-term choice.[20]

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[20] There is disagreement over Enrico Dandolo's exact age at the time of election (Madden 2003, 92).

In another example, 79-year-old Bartolomeo Gradengio was elected to the dogeship in 1339, "quite deliberately, as a stop-gap" to fill the position for a few years despite the fact that another candidate, Andrea Dandolo was the "obvious one [ducal candidate] in terms both of ability and popularity…" (Norwich 1982, 209-10).

Advancing elderly candidates for the dogeship potentially helped mitigate internal and external election and succession conflict in Venice, and thus likely contributed to its economic prosperity given that there is some evidence that political instability among elites hampers economic growth (Fosu 1992; Synder 2000). As Bouwsma (1968, 58), writes, "Venice during the Middle Ages experienced relatively few of those revolutionary moments that so frequently punctuated the histories of other Italian states, effecting radical changes in institutions and ruling groups…" Or, as Sanuto (as quoted by Bouwsma 1968, 63) writes, "This holy republic is governed with such order that is a marvelous thing. She has neither popular sedition nor discord among her patricians…"

This record of peaceful transition is even more impressive when compared to the rest of Europe. For instance, Horodowich (2009, 107) writes, "This noteworthy degree of peace in Venice is additionally surprising when we consider that in the fourteenth century revolts and rebellions were commonplace in Europe…" Horodowich (2009, 108) goes on, "Historians have long marveled at, and wondered about, the comparable degree of civic peace in Venetian history." As Finer (1999, 1012) writes, "They softened and made amendable the otherwise divisive potentialities of family rivalry in an order based on short mandates and incessant elections."

Succession conflict in the rest of Italy and the world around this time was indeed quite common (Tullock 2005 82-106). Between 600 and 1800, for instance, nearly 15 percent of

monarchs (including hereditary and elected monarchs, such as the Venetian doge) were

assassinated (Eisner 2011). Prior to this period, nearly 70 percent of Roman emperors were

assassinated (Pinker 2012, 159).[21] Venice, however, stands out as an exception. Of the 82 doges

elected from 1172 to 1797, there are no recorded ducal assassinations (see Figure 1).

Informal term limits in Venice, of course, did have shortcomings. Most notably, young

doges elected during military conflicts tended to abuse their power. For instance, Pietro

Gradengio, elected to the dogeship in 1289 at the age of 38, served a total of 22 years as doge.

His tenure as doge resulted in such abuse of power that he was credited with leaving "the

Republic in a worse condition than he found it…" (Norwich 1982, 200). His death reportedly

brought "relief" to Venetians and his body was put in an unmarked grave since he was viewed as

the "most detested man in Venice" at that time (Norwich 1982, 190 & 200). Rather than risk

voting in a younger doge again, the Venetian patriciates immediately elected the 80-year-old

Marino Zorzi to the dogeship (Norwich 1982, 201). Similar celebratory reactions occurred for

other doges holding long tenures during major military conflicts, including Agostino Barbarigo

(15 years), Leonardo Loredan (20 years), and Andrea Gritti (15 years) (Finlay 1980, 135).

Outside of warfare, lifetime-appointed executives also occasionally created problems for

the patricians. On three separate occasions, between 1172 and 1797, the patricians offered

pensions to doges in an effort to entice them to resign. Doge Jacopo Contarini (1275-1280) was

offered a pension to resign after engaging Venice in an unpopular war (a minor military conflict),

harming political relations with the Catholic church, and provoking revolutions in Venetian

territories (Norwich 1982, 169-7). After Doge Antonio Grimani (1521-1523) turned senile, at a

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[21] Pecquet (2017, 53) writes, "Roman emperors tended to have short reigns and short life expectancies due to assassination and intrigue. Few emperors had the luxury to even consider the long-run consequences of their policies, which produced institutional drift."

time when it was becoming apparent that the Holy Roman Empire posed a military threat in the Venetian theater, the Venetian patricians offered him a lifetime pension and the promise of a state funeral to resign (Norwich 1982, 437). While Grimani refused to resign, he died shortly thereafter from natural causes. In the final example, after becoming ineffective as even the ceremonial head of state after the loss of his son, Doge Francesco Foscari (1423-1457) was offered a lifetime pension (and the possibility of forceful removal from office and property confiscation) if he did not resign (Norwich 1982, 334-39).

7. Conclusion

Term limits date back to the earliest forms of democracy and their effects have been studied in a voluminous literature. While term limits remove the possibility of an incumbent becoming politically entrenched, there exist theoretical limitations to their effectiveness. We propose a generalized model of informal term limits wherein an electorate chooses an optimal term length via selection of an executive with a given expected remaining lifetime. The model predicts that the optimal term length will be determined by the relative size of the marginal benefit associated with regime stability and the expected marginal cost associated with potential tyranny and expropriation. Specifically, if the benefits associated with stability of an extended tenure exceed the costs of potential tyranny, the optimal term length increases and the electorate increases utility by choosing a younger executive. On the other hand, as the costs of tyranny increase relative to the benefits from stability, an older executive will be preferred. Importantly, the model provides a theoretical framework for the contention that a flexible informal term limit, which allows for electorate discretion with respect to executive term length, may be utility-enhancing especially if the relative costs and benefits are expected to constantly change.

We presented historical evidence from Middle Age and Renaissance Venice which coincides with the implications of our model. The Venetian electorate were keenly aware of formal terms and term limits and employed them throughout their government. The chief executive, however, the doge, was elected to a lifetime term. At the same time, an obvious precedent was adopted which de facto term limited the doge; the election of elderly candidates to the office. Exceptions were made, including during crisis periods such as war, consistent with our model's prediction that the optimal term length will increase if the relative marginal benefit of stability grows. While the alternative explanation advanced by historians—namely that Venetians valued experience above all else—is consistent with our model, we cite numerous instances where age (and even frailty) itself was the clear determining electoral characteristic. This supports our contention that the informal term limit provided by advanced age is the more plausible explanation for the electoral practice in Venice, with experience a fortunate byproduct in some cases.

We propose one possible alternative to formal term limits; the selection of executive candidates based on their remaining life expectancy. Our contribution provides insight into the design of political institutions. While we certainly do not propose lifetime elections and the removal of term limits on the executive as an "optimal" institution in other contexts, our model and case study does suggest that strictly defined terms and limits may be suboptimal in specific cases, namely those where the relative costs and benefits of executive tenure frequently change. In such circumstances, discretion on the part of the electorate with regards to executive term length may be welfare improving. Future research can continue to explore additional possible reforms to formal term limits, as well as hypothesize and document the operation of alternative informal term limits.
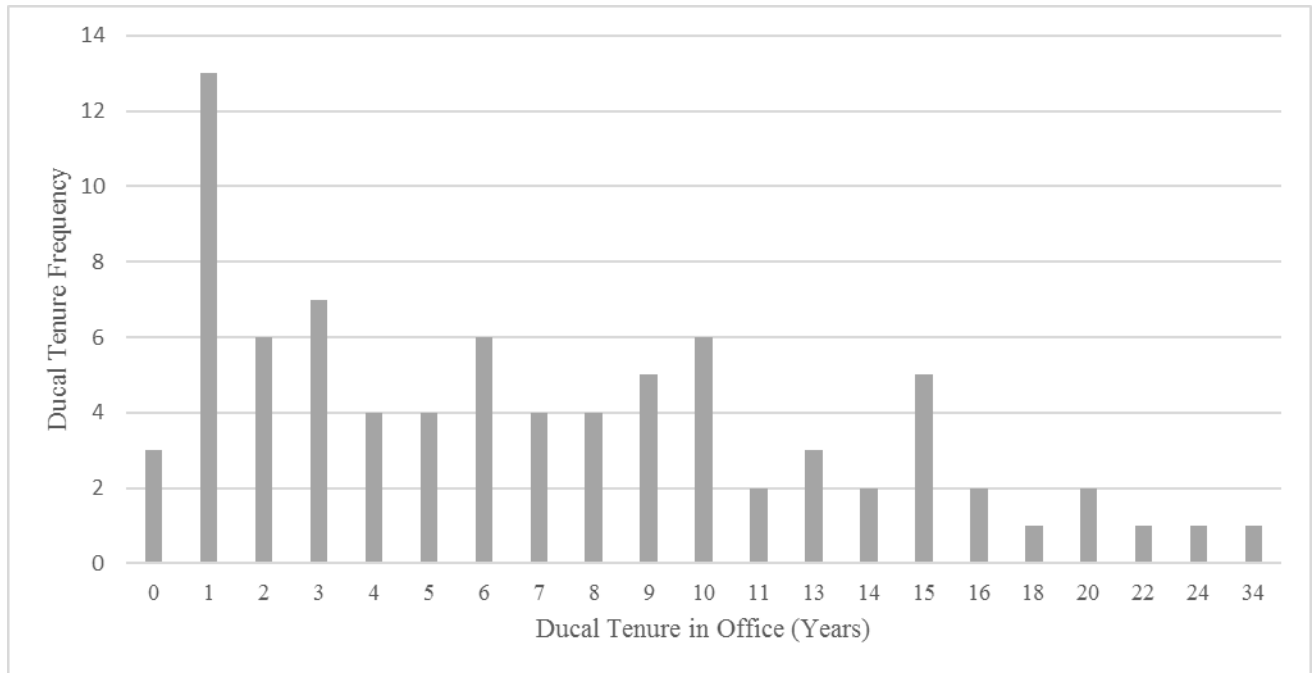
Figure 1: Venetian Doges[22]

Doge	Elected	Left Office	Departure Reason	Tenure	Birth Year	Election Age
Paoluccio Anafesto	697	717	NA	20	NA	NA
Marcello Tegalliano	717	726	Natural	9	NA	NA
Orso Ipato	726	737	Assassinated	11	NA	NA
Interregnum	737	742	NA	NA	NA	NA
Teodato Ipato	742	755	Assassinated	13	NA	NA
Galla Gaulo	755	756	Assassinated	1	NA	NA
Domenico Monegario	756	764	Assassinated	8	NA	NA
Maurizio Galbajo	764	787	Removed from office	23	NA	NA
Giovanni Galbajo	787	804	Removed from office	17	NA	NA
Obelario degli Antenoreo	804	810	Removed from office	6	NA	NA
Agnello Participazio	811	827	Natural	16	NA	NA
Giustiniano Participazio	827	829	Natural	2	NA	NA
Giovanni Participazio I	829	836	Removed from office	7	NA	NA
Pietro Tradonico	836	864	Assassinated	28	808	28
Orso Participazio I	864	881	Natural	17	NA	NA
Giovanni Participazio II	881	887	Resigned (health related)	6	NA	NA
Pietro Candiano I	887	887	Killed in battle	0	842	45
Pietro Tribuno	888	911	Natural	23	NA	NA
Orso Participazio II	912	932	Resigned	20	NA	NA
Pietro Candiano II	932	939	NA	7	872	60
Pietro Participazio	939	942	Natural	3	NA	NA
Pietro Candiano III	942	959	Natural	17	900	42
Pietro Candiano IV	960	976	Assassinated	16	NA	NA
Pietro Orseolo I	976	978	Resigned	2	928	48
Vitale Candiano	978	979	Resigned	1	NA	NA
Tribuno Memmo	979	991	Resigned	12	NA	NA
Pietro Orseolo II	991	1009	Natural	18	960	31
Ottone Orseolo	1009	1026	Removed from office	17	994	15
Pietro Centranico o Barbo	1026	1031	Removed from office	5	NA	NA
Domenico Flabanico	1032	1042	Natural	10	NA	NA
Domenico Contarini	1043	1071	Natural	28	NA	NA
Domenico Selvo	1071	1084	Removed from office	13	NA	NA
Vitale Falier	1084	1095	Natural	11	NA	NA
Vitale Michiel I	1095	1102	Natural	7	NA	NA
Ordelaf Falier	1102	1118	Killed in battle	16	1070	32
Domenico Michiel	1118	1129	Retired before natural death	11	NA	NA
Pietro Polani	1130	1147	Natural	17	1094	36
Domenico Morosini	1148	1156	Natural	8	NA	NA
Vitale Michiel II	1156	1172	Assassinated	16	1105	51
Sebastiano Ziani	1172	1178	Retired before natural death	6	1102	70
Orio Mastropiero	1178	1192	Retired before natural death	14	1120	58
Enrico Dandolo	1192	1205	Natural	13	1110	82
Pietro Ziani	1205	1229	Retired before natural death	24	NA	NA
Jacopo Tiepolo	1229	1249	Retired before natural death	20	NA	NA
Marino Morosini	1249	1253	Natural	4	1181	68
Renier Zen	1253	1268	Natural	15	NA	NA
Lorenzo Tiepolo	1268	1275	Natural	7	NA	NA
Jacopo Contarini	1275	1280	Offered lifetime pension to resign	5	1194	81
Giovanni Dandolo	1280	1289	Natural	9	1241	39
Pietro Gradenigo	1289	1311	Natural	22	1251	38
Marino Zorzi	1311	1312	Natural	1	1231	80
Giovanni Soranzo	1312	1328	Natural	16	1240	72
Francesco Dandolo	1329	1339	Natural	10	1258	71
Bartolomeo Gradenigo	1339	1342	Natural	3	1260	79
Andrea Dandolo	1343	1354	Natural	11	1306	37
Marin Falier	1354	1355	Removed from office and executed	1	1285	69
Giovanni Gradenigo	1355	1356	Natural	1	1285	70
Giovanni Dolfin	1356	1361	Natural	5	1303	53
Lorenzo Celsi	1361	1365	Natural	4	1310	51
Marco Corner	1365	1368	Natural	3	1295	70
Andrea Contarini	1368	1382	Natural	14	1302	66

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[22] Bertolizio (2013) was used as our primary source, supplemented, when necessary, by Norwich (1982), Madden (2012), Hazlitt (1900), Lane (1966 & 1973), Paruta (1658), and the Enciclopedia Italiana di Scienze, Lettere ed Arti (http://www.treccani.it/). We calculated the age of the doge at election by subtracting their birthyear from their election year. Depending on their exact birth and election month, which was for the vast majority of cases not available, the calculated age could be underreported or overreported by one year. Given that sources occasionally reported a slightly different age at election, we use this calculated age throughout our analysis.

Figure 1: Venetian Doges (Continued)

Doge	Elected	Left Office	Departure Reason	Tenure	Birth Year	Election Age
Michele Morosini	1382	1382	Natural	0	1306	76
Antonio Venier	1382	1400	Natural	18	1330	52
Michele Steno	1400	1413	Natural	13	1331	69
Tommaso Mocenigo	1414	1423	Natural	9	1343	71
Francesco Foscari	1423	1457	Offered lifetime pension to resign	34	1373	50
Pasquale Malipiero	1457	1462	Natural	5	1392	65
Cristoforo Moro	1462	1471	Natural	9	1390	72
Nicolò Tron	1471	1473	Natural	2	1399	72
Nicolò Marcello	1473	1474	Natural	1	1399	74
Pietro Mocenigo	1474	1476	Natural	2	1406	68
Andrea Vendramin	1476	1478	Natural	2	1393	83
Giovanni Mocenigo	1478	1485	Natural	7	1409	69
Marco Barbarigo	1485	1486	Natural	1	1413	72
Agostino Barbarigo	1486	1501	Natural	15	1420	66
Leonardo Loredan	1501	1521	Natural	20	1436	65
Antonio Grimani	1521	1523	Natural	2	1434	87
Andrea Gritti	1523	1538	Natural	15	1455	68
Pietro Lando	1539	1545	Natural	6	1462	77
Francesco Donato	1545	1553	Natural	8	1468	77
Marco Antonio Trevisan	1553	1554	Natural	1	1475	78
Francesco Venier	1554	1556	Natural	2	1489	65
Lorenzo Priuli	1556	1559	Natural	3	1489	67
Girolamo Priuli	1559	1567	Natural	8	1486	73
Pietro Loredan	1567	1570	Natural	3	1482	85
Alvise Mocenigo I	1570	1577	Natural	7	1507	63
Sebastiano Venier	1577	1578	Natural	1	1496	81
Nicolò da Ponte	1578	1585	Natural	7	1491	87
Pasqual Cicogna	1585	1595	Natural	10	1509	76
Marino Grimani	1595	1605	Natural	10	1532	63
Leonardo Dona	1606	1612	Natural	6	1536	70
Marcantonio Memmo	1612	1615	Natural	3	1536	76
Giovanni Bembo	1615	1618	Natural	3	1543	72
Nicolò Dona	1618	1618	Natural	0	1539	79
Antonio Priuli	1618	1623	Natural	5	1548	70
Francesco Contarini	1623	1624	Natural	1	1556	67
Giovanni Corner I	1625	1629	Natural	4	1551	74
Nicolò Contarini	1630	1631	Natural	1	1553	77
Francesco Erizzo	1631	1646	Natural	15	1566	65
Francesco Da Molin	1646	1655	Natural	9	1575	71
Carlo Contarini	1655	1656	Natural	1	1580	75
Francesco Corner	1656	1656	Natural	0	1585	71
Bertucci Valier	1656	1658	Natural	2	1596	60
Giovanni Pesaro	1658	1659	Natural	1	1589	69
Domenico Contarini	1659	1675	Natural	16	1585	74
Nicolò Sagredo	1675	1676	Natural	1	1606	69
Alvise Contarini	1676	1684	Natural	8	1601	75
Marcantonio Giustinian	1684	1688	Natural	4	1619	65
Francesco Morosini	1688	1694	Natural	6	1619	69
Silvestro Valier	1694	1700	Natural	6	1630	64
Alvise Mocenigo II	1700	1709	Natural	9	1628	72
Giovanni Corner II	1709	1722	Natural	13	1647	62
Alvise Mocenigo III	1722	1732	Natural	10	1662	60
Carlo Ruzzini	1732	1735	Natural	3	1653	79
Alvise Pisani	1735	1741	Natural	6	1664	71
Pietro Grimani	1741	1752	Natural	11	1677	64
Francesco Loredan	1752	1762	Natural	10	1685	67
Marco Foscarini	1762	1763	Natural	1	1696	66
Alvise Mocenigo IV	1763	1778	Natural	15	1701	62
Paolo Renier	1779	1789	Natural	10	1710	69
Lodovico Manin	1789	1797	Removed from office by Napoleon	8	1725	64

Figure 2: Venetian Ducal Tenure Frequency[23]

[23] Sources: Bertolizio (2013), Norwich (1982), Madden (2012), Hazlitt (1900), Lane (1966 & 1973), Paruta (1658), and the Enciclopedia Italiana di Scienze, Lettere ed Arti (http://www.treccani.it/).

Figure 3: Ducal Tenure During Major Venetian Military Conflicts in the Venetian Theater[24]

Military Conflict	Start	End	Doge	Elected	Left Office	Election Age	Tenure
Tiepolo's Rebellion	1310	1310	Pietro Gradenigo*	1289	1311	38	22
Hungarian-Venetian War	1342	1346	Bartolomeo Gradenigo	1339	1342	79	3
			Andrea Dandolo	1343	1354	37	11
Hungarian-Venetian War	1357	1358	Giovanni Dolfin	1356	1361	53	5
Hungarian-Venetian War / War of Chioggia	1378	1381	Andrea Contarini*	1368	1382	66	14
Venetian-Milanese War	1404	1406	Michele Steno*	1400	1413	69	13
Venetian-Milanese War	1426	1426	Francesco Foscari	1423	1457	50	34
Venetian-Milanese War	1427	1428					
Venetian-Milanese War	1429	1433					
Venetian-Milanese War	1448	1454					
Ferrarese War	1482	1484	Giovanni Mocenigo*	1478	1485	69	7
War of the League of Cambrai	1508	1510	Leonardo Loredan*	1501	1521	65	20
Campaigns of Gaston of Foix	1511	1512					
First Italian War between Charles V and Francis I	1521	1525	Antonio Grimani	1521	1523	87	2
			Andrea Gritti	1523	1538	68	15
Venetian-Turkish War	1685	1699	Marcantonio Giustinian	1684	1688	65	4
			Francesco Morosini	1688	1694	69	6
			Silvestro Valier	1694	1700	64	6
Average During Major Military Conflicts in the Venetian Theater:						63.56	9.56
Average Outside of Major Military Conflicts in the Venetian Theater:						69.58	7.27

*We exclude these doges from our average calculations since the wars that occurred during their tenure began more than 3 years after their election, suggesting that the war was most likely not a significant factor in their election. Alternative cutoff specifications show consistent patterns (see Appendix A).

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[24] Source: Phillips and Axelrod (2005).

References

Acemoglu, Daron (2008). "Oligarchic Versus Democratic Societies," *Journal of the European Economic Association* 6(1): 1-44.

Acemoglu, Daron, Georgy Egorov, and Konstantin Sonin (2013). "A Political Theory of Populism," *Quarterly Journal of Economics* 128(2): 771-805.

Acemoglu, Daron and James A. Robinson (2005). "Unbundling Institutions," *Journal of Political Economy* 113(5): 949-995.

Acemoglu, Daron and James A. Robinson (2006). *Economic Origins of Dictatorship and Democracy*. New York, NY: Cambridge University Press.

Acemoglu, Daron and James A. Robinson (2008). "Persistence of Power, Elites, and Institutions," *American Economic Review* 98(1): 267-93.

Acemoglu, Daron and James A. Robinson (2012). *Why Nations Fail*. New York, NY: Crown Business.

Adams, James and Lawrence W. Kenny (1986). "Optimal Tenure of Elected Public Officials," *Journal of Law and Economics* 29(2): 303-328.

Alt, James, Ethan Bueno de Mesquita, and Shanna Rose (2011). "Disentangling Accountability and Competence in Elections: Evidence from U.S. Term Limits," *The Journal of Politics* 73(1): 171-186.

Bardhan, Pranab (1997). "Corruption and Development: A Review of Issues," *Journal of Economic Literature* 35(3): 1320-1346.

Barro, Robert (1973). "The Control of Politicians: An Economic Model," *Public Choice* 14(1): 19-42.

Bender, Bruce and John R. Lott, Jr. (1996). "Legislator voting and shirking: A Critical Review of the Literature," *Public Choice* 87: 67-100.

Bertolizio, Giorgio (2013). *Dogi Nullita al Potere*. Rome, Italy: Castelvecchi.

Besley, Timothy, and Anne Case (1995a). "Does Electoral Accountability Affect Economic Policy Choices? Evidence from Gubernatorial Term Limits," *Quarterly Journal of Economics* 110(3): 769-798.

Besley, Timothy and Anne Case (1995b). "Incumbent Behavior: Vote-seeking, Tax-setting, and Yardstick Competition," *American Economic Review* 85(1): 25-45.

Besley, Timothy and Anne Case (2003). "Political Institutions and Policy Choices: Evidence from the United States" *Journal of Economic Literature* 41(1): 7-73.

Besley, Timothy (2006). *Principled Agents? The Political Economy of Good Government*. Oxford: Oxford University Press.

Bouwsma, William J. (1968). *Venice and the Defense of Republican Liberty: Renaissance Values in the Age of the Counter Reformation*. Berkley and Los Angles, CA: University of California Press.

Bracciolini, Poggio (1450[1997]. "In Praise of the Venetian Republic." Martin Davies (translator). In, Jill Kraye's (Ed.) *Cambridge Translations of Renaissance Philosophical Texts, Volume 2: Political Philosophy*. Cambridge, UK: Cambridge University Press, pp. 135-145.

Braudel, Fernand (1979). *Civilization and Capitalism 15th – 18th*, Vol II: The Wheels of Commerce (Translated by Sian Reynolds). New York, NY: Harper & Row Publishers.

Brennan, Geoffrey and James M. Buchanan (1977). "Towards a Tax Constitution for Leviathan," *Journal of Public Economics* 8: 255-274.

Brennan, Geoffrey and James M. Buchanan (1978). "Tax Instruments as Constraints on the Disposition of Public Revenues," *Journal of Public Economics* 9: 301-318.

Brennan, Geoffrey and James M. Buchanan (1980). *The Power to Tax: Analytical Foundations of a Fiscal Constitution*. Cambridge University Press.

Brennan, Geoffrey and James M. Buchanan (2000). *The Reason of Rules: Constitutional Political Economy*. Indianapolis, IN: Liberty Fund, Inc.

Brown, Horatio F. (1907). *Studies in the History of Venice*, Volume 1. London, England: J. Murray.

Carden, Robert (1908). *The City of Genoa*. London and New York: Methuen & Company and James Pott & Co.

Coggins, Jay S. and C. Federico Perali (1998). "64% Majority Rule in Ducal Venice: Voting for the Doge," *Public Choice* 97(4): 709-723.

Cohen, Linda R. and Matthew L. Spitzer (1992). "Term Limits," *Georgetown Law Journal* 80: 477-522.

Cohen, Linda R. and Matthew L. Spitzer (1996). "Term Limits and Representation." In, Bernard Grofman (Ed.), *Legislative Term Limits: Public Choice Perspectives*. Boston, Dordrecht, and London: Kluwer Academic Publishers, pp. 47-65.

Congleton, Roger D. (2007). "From Royal to Parliamentary Rule without Revolution: The Economics of Constitutional Exchange within Divided Governments," *European Journal of Comparative Economics* 23(2): 261-284.

Corrales, Javier and Michael Penfold (2014). "Manipulating Term Limits in Latin America," *Journal of Democracy* 25(4): 57-168.

Crouzet-Pavan, Elisabeth (2002). *Venice: Triumphant*. Baltimore, MD: John Hopkins University Press.

Crowley, George R. and William S. Reece (2013). "Dynastic Political Privilege and Electoral Accountability: The Case of U.S. Governors, 1950–2005," *Economic Inquiry* 51(1): 735-746.

Crowley, Roger (2013). *City of Fortune: How Venice Ruled the Seas*. New York, NY: Random House.

Davis, James Cushman (1962). *The Decline of the Venetian Nobility as a Ruling Class*. Baltimore, MD: The Johns Hopkins University Press.

DeBaker, Jason (2012). "Political Parties and Political Shirking," *Public Choice* 150(3): 651-670.

De Lara, Yadira González (2001). "Enforceability and Risk-Sharing in Financial Contracts: From the Sea Loan to the Commenda in Late Medieval Venice," *The Journal of Economic History* 61(2): 500-504

De Lara, Yadira González (2008). "The Secret of Venetian Success: A Public-Order, Reputation-Based Institution," *European Review of Economic History* 12: 247-285.

De Lara, Yadira González, Avner Greif, and Saumitra Jha (2008). "The Administrative Foundations of Self-Enforcing Constitutions," *American Economic Review: Papers & Proceedings* 98(2): 105-109.

De Long, Bradford and Andrewi Shleifer (1993). "Princes and Merchants: European City Growth Before the Industrial Revolution," *Journal of Law and Economics* 36(2): 671-702.

De Mesquita, Bruce Bueno and Alastair Smith (2011). *The Dictator's Handbook*. New York, NY: PublicAffairs.

De Vivo, Filippo (2007). *Information and Communication in Venice: Rethinking Early Modern Politics.* New York, NY: Oxford University Press.

Downs, Anthony (1957). *An Economic Theory of Democracy*. New York: Harper & Row.

Eisner, Manuel (2011). "Killing Kings," *The British Journal of Criminology* 51(3): 556-577.

Elhauge, Einer (1998). *What Term Limits Do That Ordinary Voting Cannot*. Cato Institute.

Epstein, Stephen R. (2000). *Freedom and Growth: The Rise of States and Markets in Europe, 1300-1750*. New York, NY: Routledge.

Ferejohn, John (1986) "Incumbent Performance and Electoral Control," *Public Choice* 50(1): 5-26.

Ferraro, Joanne M. (2012). *Venice: History of the Floating City*. New York, NY: Cambridge University Press.

Finer, S. E. (1999). *The History of Government from the Earliest Times, Vol 2: The Intermediate Ages*. New York: Oxford University Press.

Fink, Zera S. (1945). *The Classical Republicans: An Essay in the Recovery of a Pattern of Thought in Seventeenth-Century England*, 2nd Edition. Eugene, OR: Resource Publications.

Finlay, Robert (1980). *Politics in Renaissance Venice*. New Brunswick, NJ: Rutgers University Press.

Fisher, Mark, David L. Franklin, and Jerrold M. Post (2014). "Executive Dysfunction, Brain Again, and Political Leadership," *Politics and the Life Sciences* 33(2): 93-102.

Friedman, Daniel and Donald Wittman (1996). "Term Limits as Political Redistribution." In, Bernard Grofman (Ed.), *Legislative Term Limits: Public Choice Perspectives*. Boston, Dordrecht, and London: Kluwer Academic Publishers, pp. 229-236.

Fosu, Augustin Kwasi (1992). "Political Instability and Economic Growth: Evidence from Sub-Saharan Africa," *Economic Development and Cultural Change* 40(4): 829-841.

Fukuyama, Francis (2011). *The Origins of Political Order*. New York, NY: Farrar, Straus, and Giroux.

Gilbert, Creighton (1967). "When Did a Man in the Renaissance Grow Old?" *Studies in the Renaissance* 14: 7-32.

Ginsburg, Tom, James Douglas Melton, and Zachary Elkins (2011). "On the Evasion of Executive Term Limits," *William and Mary Law Review* 52(6): 1807-1872.

Glaeser, Edward L. (1997). "Self-Imposed Term Limits," *Public Choice* 93(3): 389-394.

Gleason, Elisabeth G. (1993). *Gasparo Contarini: Venice, Rome, and Reform*. Berkeley, CA: University of California Press.

Greif, Avner and David D. Laitin (2004). "A Theory of Endogenous Institutional Change," *American Political Science Review* 98(4): 633-652.

Grendler, Paul F. (1990). "The Leaders of the Venetian State, 1540-1609: A Prosopographical Analysis," *Studi Veneziani* 19: 35-85.

Grofman, Bernard (1996). *Legislative Term Limits: Public Choice Perspectives*. Boston, Dordrecht, and London: Kluwer Academic Publishers.

Gowrisankaran, Gautam, Matthew F. Mitchell, and Andrea Moro (2008). "Electoral design and voter welfare from the US Senate: evidence from a dynamic selection model." *Review of Economic Dynamics* 11(1): 1-17.

Gutmann, David (1988). "Age and Leadership: Cross-Cultural Observations." In, Angus McIntyre's (Ed.), *Aging and Political Leadership*. Albany, NY: State University of New York Press, pp. 89-101.

Hazlitt, W. Carew (1900). *The Venetian Republic: Its Rise, Its Growth, and Its Fall 421-1797*. Volume II: 1423-1797. London: Adam and Charles Black.

Herlihy, David (1974). "The Generation in Medieval History," *Viator: Medieval and Renaissance* Studies 5: 346-364.

Horodowich, Elizabeth (2009). *A Brief History of Venice: A New History of the City and Its People*. London, UK: Constable & Robinson Ltd.

Keltner, Dacher Deborah H. Gruenfeld, and Cameron Anderson (2003). "Power, Approach, and Inhibition," *Psychological Review* 110(2): 265-284.

Kohn, George C. (1999). *Dictionary of Wars*. New York, NYL: Faces on File, Inc.

Krehibiel, Keith, Kenneth A. Shepsle, and Barry R. Weingast (1987). "Why Are Congressional Committees Powerful?," *American Political Science Review* 81(3): 929-945.

Laband, David and B. F. Lentz (1985). "Favorite Sons: Intergenerational Wealth Transfers among Politicians," *Economic Inquiry* 23(3): 395-414

Lane, Frederic C. (1966). *Venice and History: The Collected Papers of Frederic C. Lane*. Baltimore: John Hopkins

Lane, Frederic C. (1973). *Venice: A Maritime Republic*. Baltimore and London: The John Hopkins University Press.

Leeson, Peter T. (2007). "An-arrgh-chy: The Law and Economics of Pirate Organization," *Journal of Political Economy* 115(6): 1049-1094.

Leeson, Peter T. and Paola A. Suarez (2016). "An Economic Analysis of Magna Carta," *International Review of Law and Economics* 47: 40-46.

Leguizamon, J. Sebastian and George R. Crowley (2016). "Term limits, time horizons and electoral accountability," *Public Choice* 168(1-2): 23-42.

Levchenko, Andrei A. (2013). "International Trade and Institutional Change," *Journal of Law, Economics, and Organization* 29(5): 1145-1181.

Levinson, Daryl and Benjamin I. Sachs (2015). "Political Entrenchment and Public Law," *Yale Law Journal* 125(1): 400-482.

Lopez, Edward J. (2003). "Term Limits: Causes and Consequences," *Public Choice* 114(1): 1-56.

Lott, John R., Jr. (1987). "Political cheating," *Public Choice* 52(2): 169-186.

Lott, John R., Jr. (1990). "Attendance Rates, Political Shirking, and the Effect of Post-Elective Office Employment," *Economic Inquiry* 28(1): 133-150.

Lott, John R., Jr. and Stephen G. Bronars (1993). "Time series evidence on shirking in the U.S. House of Representatives," *Public Choice* 76(1): 125-149.

Lott, John R., Jr. and W. Robert Reed (1989). "Shirking and sorting in a political market with finite-lived politicians," *Public Choice* 61(1): 75-96.

Madden, Thomas, F. (2003). *Enrico Dandolo and the Rise of Venice*. Baltimore, MD: John Hopkins University Press.

Madden, Thomas F. (2012). *Venice: A New History*. New York, NY: Viking.

Mallett, Michael E. and John R. Hale (1984). *The Military Organization of a Renaissance State: Venice c. 1400 to 1617*. New York, NY: Cambridge University Press.

Maltz, Gideon (2007). "The Case for Presidential Term Limits," *Journal of Democracy,* 18(1): 128-142.

Maskin, Eric, and Jean Tirole (2004). "The politician and the judge: accountability in government," *American Economic Review* 94(4): 1034-1054.

Muir, Edward (1981). *Civic Ritual in Renaissance Venice*. Princeton, NJ: Princeton University

Press.

Müller, M. (2007). "Motivation of Politicians and Long-Term Policies," *Public Choice 132*(3): 273-289.

North, Douglas C., John Joseph Wallis, and Barry R. Weingast (2009). *Violence and Social Orders*. New York, NY: Cambridge University Press.

Norwich, John Julius (1982). *A History of Venice*. New York, NY: Vintage Books.

Norwich, John Julius (1989*). A History of Venice*. New York, NY: Vintage Books.

Olson, Mancur (1982). *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities*. Yale University Press.

Paruta, Paolo (1658). *The History of Venice*. Henry, Earl of Monmouth (Translator). Available online: http://quod.lib.umich.edu/cgi/t/text/text-idx?c=eebo;idno=A56527.0001.001

Pecquet, Gary M. (2017). "The Original Road to Serfdom: From Rome to Feudal Europe," *The Journal of Private Enterprise* 32(1): 45-62.

Persson, Torsten and Guido Tabellini (2000). *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press.

Petracca, Mark P. (1992) "Predisposed to Oppose: Political Scientists & Term Limitations," *Polity* 24(4): 657-672.

Petracca, Mark P. (1996). "A History of Rotation in Office." In, Bernard Grofman (Ed.), *Legislative Term Limits: Public Choice Perspectives*. Boston, MA, Dordrecht, Netherlands, and London, England: Kluwer Academic Publishers, pp. 247-277.

Phillips, Charles and Alan Axelrod (2005). *Encyclopedia of Wars, Vol. I, II, & III*. New York, NY. Zenda, Inc.

Pinker, Steven (2012). *Better Angels of Our Nature: Why Violence Has Declined*. New York, NY: Viking.

Popping, Roel and Rafeal Wittek (2015). "Success and Failure of Parliamentary Motions: A Social Dilemma Approach," *PLOS ONE* 10(8): e0133510.

Puga, Diego and Daniel Trefler (2014). "International Trade and Institutional Change: Medieval Venice's Response to Globalization," *Quarterly Journal of Economics* 129(2): 753-821.

Queller, Donald E. (1986). *The Venetian Patriciate: Reality Versus Myth*. Urbana and Chicago: University of Illinois Press.

Rose, Charles J. (1974). "Marc Antonio Venier, Renier Zeno, and 'The Myth of Venice'," *The Historian* 36(3): 479-497.

Ruggiero, Guido (1980). *Violence in Early Renaissance Venice*. New Brunswick, NJ: Rutgers University Press.

Saint-Paul, Gilles, Davide Ticchi, and Andrea Vindigni (2016). "A Theory of Political Entrenchment," *Economic Journal* 126(593): 1238-63.

Salter, Alexander W. (2015a). "Rights to the Realm: Reconsidering Western Political Development," *American Political Science Review* 109 (4): 725-734.

Salter, Alexander W. (2015b). "Sovereignty as Exchange of Political Property Rights," *Public Choice* 165 (1): 79-96.

Salter, Alexander W. and Andrew T. Young (2017). "Market-Preserving Federalism as Polycentric Sovereignty," SSRN Working Paper: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2735963.

Shleifer, Andrei and Robert W. Vishny (2002). *The Grabbing Hand*. Cambridge, MA: Harvard University Press.

Sieg, Holger and Chamna Yoon (2017). "Estimating Dynamic Games of Electoral Competition to Evaluate Term Limits in US Gubernatorial Elections," *American Economic Review* 101(7): 1824-57.

Smart, Michael and Daniel M. Sturm (2013). "Term limits and electoral accountability," *Journal of Public Economics* 107: 93-102.

Stasavage, David (2016). "Representation and Consent: Why they arose in Europe and not Elsewhere," *Annual Review of Political Science* 19: 145-162.

Synder, Jack L. (2000). *From Voting to Violence: Democratization and Nationalist Conflict*. New York, NY: W. W. Norton & Company.

Tabarrok, Alexander (1996). "Term Limits and Political Conflict," In, Bernard Grofman (Ed.), *Legislative Term Limits: Public Choice Perspectives*. Boston, MA, Dordrecht, Netherlands, and London, England: Kluwer Academic Publishers, pp. 229-236.

Tilly, Charles (2004). *Contention and Democracy in Europe, 1650-2000*. New York, NY: Cambridge University Press.

Trentmann, Frank (2016). *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First*. New York, NY: HarperCollins.

Tullock, Gordon (2005). *The Social Dilemma: Of Autocracy, Revolution, Coup d'Etat, and War*. The Selected Works of Gordon Tullock, Volume 8 (Charles K. Rowley, Ed.). Indianapolis, IN: Liberty Fund, Inc.

Vasiliev, Alexander A. (1958). *History of the Byzantine Empire: 324-1453*. Madison, WI: The University of Wisconsin Press.

van Kleef, Gerben A., Christopher Oveis, Ilmo van der Löwe, Aleksandr LuoKogan, Jennifer Goetz, and Dacher Keltner (2008). "Power, Distress, and Compassion: Turning a Blind Eye to the Suffering of Others," *Psychological Science* 19(12): 1315-22.

Voigt, (1999). *Explaining Constitutional Change: A Positive Economics Approach*. Cheltenham, England and Northampton, MA: Edward Elgar Press.

Williams, Laron K. (2011). "Unsuccessful Success? Failed No-Confidence Motions, Competence Signals, and Electoral Support," *Comparative Political Studies* 44(11): 1-26.

Williams, Laron K. (2015). "Opposition Parties and the Timing of Successful No-Confidence Motions," *Political Science Research and Methods* 4(3): 533-553.

Appendix A: Tenure During Major Military Conflicts in Venetian Theater - Alternative Specifications

	Elected After War Started	Elected After War Started or in the Year War Started	Elected At Most 1 Year Before War Started	Elected At Most 2 Years Before War Started	Elected At Most 3 Years Before War Started	Elected At Most 4 Years Before War Started	Elected At Most 5 Years Before War Started
Included Election Age	59.50	65.00	63.29	63.29	63.56	64.55	64.55
Included Tenure	9.50	8.00	7.00	7.00	9.56	9.64	9.64
Excluded Election Age	69.39	69.15	69.44	69.44	69.58	69.60	69.60
Excluded Tenure	7.42	7.49	7.57	7.57	7.27	7.20	7.20