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Theocracy is just another Form of Dictatorship: Theory and Evidence from the Papal Regimes

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THEOCRACY IS JUST ANOTHER FORM OF DICTATORSHIP: THEORY AND EVIDENCE FROM THE PAPAL REGIMES

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ABSTRACT

This paper tests the explanatory and predictive power of a theory of dictatorship (e.g., Wintrobe 1998, 2007) when applied to the case of theocracy and in particular to the history of the temporal power of the Popes. We consider the behaviour of the Catholic theocracy in the Papal States, as this was a very long lasting theocracy, exposed to many historical shocks that reveal information about the incentives and constraints that characterize it. We use this information to test the explanatory power of the theory of dictatorship, showing that never in the history of the temporal power of the Church have the four categories of dictatorship that the theory foresees (tinpot, tyrant, totalitarian and conceivably timocrat) proven inadequate. Theocracy is just like any other form of dictatorship. Furthermore, we test some of the predictions of the theory of dictatorship about the durability of, and the source of opposition to the various regimes on data about the Papacy. The results appear to support the theory.

Keywords: Dictatorship, Theocracy, Papacy

JEL classification codes: Z12, N83, D79

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1. Introduction

There are two basically different ways to think about theocracy in general or about particular theocratic regimes. One is that theocracies are essentially dictatorships. In this way of thinking the religious dimension of theocratic authority provides an important source of loyalty to the regime, but this functions no differently than other sources of legitimacy or authority in other dictatorial regimes (Wintrobe and Padovano 2009). The other is that the tension, complementarity or opposition between the two sources of authority - religious and secular - give theocratic regimes a sufficiently different flavor that they warrant a separate classification (Keddie, 2006; Bernholz, 2001; Ferrero, 2009).

In this paper we take the first view - that theocracies are dictatorships - and apply a particular model of dictatorship - Wintrobe's (1990, 1998) political exchange model¹ - to the case of theocracy. To substantiate this claim, we apply the political exchange model to the longest-lived and most famous of all theocracies, the Papacy. We conduct two tests. In the first, we evaluate the *explanatory* power of the model, applying its analytical structures to the history of the temporal power of the Popes. This first test suggests that the four types of dictatorial regimes indicated by the model (tinpot, totalitarian, tyrannical and timocratic) are enough to explain the structural changes that the Papacy underwent during that 1,300 years long period. Drawing on this characterization of the Papal regimes, we verify the *predictive* power of the political exchange model, testing two empirical restrictions. The first is that tinpot Popes are weaker and therefore should be shorter-lived regimes compared to tyrannical and totalitarian Popes. The second is that power maximizing, totalitarian Popes pose a more serious threat to, and are thus more likely to be opposed by, other political powers, like the empires in the Middle Age and the

¹ Some other rational choice perspective on dictatorship are Olson (2000) and Acemoglu and Robinson (2005).

nation states in more recent times. As the election of an Antipope is probably the most serious challenge to the legitimacy of a Pope, the model predicts that the probability of having an Antipope is higher during totalitarian Papacies than during tinpot or tyrannical ones.

The paper hopes to add to the rather sparse analytical literature on theocracy (some other rational choice perspectives can be found and in the recent collection by Ferrero and Wintrobe, 2009). Of course, there are many, often important, studies of particular regimes. Some examples of the latter are Keddie (2006) on the regime in contemporary Iran, the discussion of the ancient Jewish theocracy in Finer (1997) and the vast literature on the Papacy, of which Duffy (2006) is a particularly insightful recent history.

The rest of the paper is organized as follows. The following section summarizes Wintrobe's model of dictatorship, and shows how the four types of regime can be derived from a general framework. Section 3 extends that model to theocracy. In section 4 we look at the explanatory power of the model for the case of the Papal States by showing that the four dictatorial types suffice to describe the history of the Papal theocracy. In section 5 we test the predictive power of the model looking at the durability and at the source of opposition of the various Papal regimes. Section 6 summarizes the main conclusions of our analysis.

2. Theoretical grounds

The classic view of the difference between democracy and dictatorship in political science (e.g., Friedrich and Brzezinski, 1956) is that dictators stay in power only through repression. But rule by repression alone creates a problem for the autocrat. This is the Dictator's Dilemma (Wintrobe 1998): the problem facing any ruler of knowing how much support he has among the general population, as well as among smaller groups with the power to depose him. The use of repression breeds fear on the part of a dictator's subjects, and this fear breeds a reluctance on the

part of the citizenry to signal displeasure with the dictator's policies. This fear on their part in turn breeds fear on the part of the dictator, since, not knowing what the population thinks of his policies, he has no way of knowing what they are thinking and planning, and of course he suspects that what they are thinking and planning is his overthrow. The problem is magnified the more the dictator rules through repression and fear. But the problem is not impossible to solve; successful dictators resolve it through buying or accumulating loyalty among different groups in the population, especially among those with the capacity to depose him.

That dictatorships use two instruments - repression and loyalty - to stay in power provides a useful classification of regimes. Four types can be distinguished: tinpots, tyrants, totalitarians, and timocrats. Totalitarian regimes combine high repression with a capacity to generate loyalty. Under tyranny, the regime stays in power through high repression alone and loyalty is low. A tinpot regime is low on both counts, while a timocracy implies that loyalty is high even at low levels of repression. These correspond to the four types or images of dictatorship mentioned that Wintrobe (1998) suggested have tended to recur over and over, though often under different names, in the literature on dictatorship.

The different types of regimes can each be derived from a more general framework Wintrobe (1998, chapter 5). Suppose now that all dictators have the *same* utility function², whose arguments are consumption (C) and power (π).

$$U = U(\pi, C) \tag{1}$$

The dictator is constrained in two ways. The first constraint is the costs of accumulating power. This is governed by the prices of repression and loyalty, P_R and P_L . These, in turn, depend on the political institutions of the regime: whether there is a mass party, whether the

²Totalitarians and tinpots emerge as the special cases at either extreme where $U_C = 0$ or $U_\pi = 0$.

police and the army are subservient to it, and so on. This constraint is illustrated by the upward sloping curve $\pi(B - C)$ in Figure 1, implying a positive relationship between the dictator's *total* budget B , minus expenditures on C , and the level of π obtained. This curve shows how the dictator can convert money into power.

[Figure 1 about here]

The second constraint is the ruler's capacity to use his power to increase revenue, as summarized by the $B(\pi)$ curve in Figure 1. This curve describes the relationship between the exercise of political power and its consequences for the dictator's budget, i.e., the conversion, in effect, of *power* into *money*. There are many ways for a government to convert power into money: the most obvious are through taxation, regulation or the provision of public goods that raise national income.

It seems reasonable to assume that, initially, the power-to-money curve $B(\pi)$ must be positively sloped: starting from very low (or zero) levels of power the provision of basic public infrastructure or the imposition of simple taxes at low rates must raise revenue. After some point, however, further exercise of power must ultimately lower the budget by reducing the efficiency of the economy, therefore lowering national income and tax revenues.

Equilibrium in Figure 1 is at the intersection of the $B(\pi)$ and $\pi(B - C)$ curves, or at E_0 , implying a (total) budget of B^* , and power equal to π^* ³ In a modern theocracy like Iran (see Wintrobe and Padovano 2009), where the economic role of the theocracy is to impose restrictions on economic activity like laws against usury, it seems reasonable to assume that equilibrium will be in a region where $B(\pi)$ is downward sloping. In the case of the Papal States, at a time when governments were relatively primitive and public goods lacking, it seems likely that an increase

³ See Wintrobe (1998), chapter 5 for a proof.

in the power of the Pope would increase the revenues of the government. For simplicity, in this paper we will assume that this is generally the case. The consequences of relaxing this assumption are straightforward and will be pointed out where appropriate.

Once either the level of π or the budget is set, the dictator chooses the optimum levels of repression R and loyalty L . This is shown in Figure 2, where, given equilibrium values for π^* and B^* , the prices of loyalty L , of repression R and the marginal productivities of R and L in producing π , R^* and L^* are determined. This analysis thus jointly determines the dictator's optimal levels of R^* , L^* , C^* , B^* , and π^* . In turn, changes in the capacity to raise revenue or to repress dissent, the supply of loyalty, the dictator's consumption level, or any other variable entering into the equilibrium changes its nature. Thus whether a regime is a tinpot (low repression, low loyalty), a tyranny (high repression, low loyalty) or totalitarian (high repression and high loyalty) depends on these more basic factors. This is explicitly shown in Figure 2. Depending on the quadrant, the regime turns out to one of the four types of regime.

[Figure 2 about here]

3. Theocracy

Now let us apply this model to the case of theocracy. Theocracies too stay in power through the use of the instruments of repression and loyalty. In particular, they can use the power of belief in the religion as an important way to provide a source of loyalty to their regime. How this works depends on the type of religion. Three notable sources of religious power are the priestly class, the Holy Book and sponsorship of the arts, in the case of the Catholic religion in particular.

3.1. The priestly class. Theocratic rule usually involves the dominance of a priestly class, the leaders of the Church in the regime of Calvin, the rabbinate in the case of the Jews, the

cardinals, bishops and popes in the papacy, and the religious clerics in the case of contemporary Iran. They may rule directly, as Calvin did, or indirectly⁴ as in the case of modern Iran. In either case, their religious authority is obviously an enormous source of power. But their authority rests normally on tradition and on sources like the Holy Book. This tends to make them conservative and therefore unresponsive to innovation. They try to buttress their authority in various ways, as discussed in the following sections.

3.2 The church as sponsor of the arts. Many of the activities of the Catholic Church in this respect are easily interpretable as attempts to establish the Church's reputation for being the true representative of the One God, in the same way that costly expenditures on décor are viewed as "signals" of quality of the product in the model of Klein and Leffler (1981)⁵. Duffy (2006) shows that the Pope Nicholas V thought of things in this manner. In a speech to the cardinals from his deathbed in 1455 he emphasized that "His buildings were to be sermons in stone, laymen's books. The learned who had studied antiquity could truly understand the greatness and authority of Rome, but

"To create solid and stable convictions in the minds of the uncultured masses, there must be something that appeals to the eye: a popular faith, sustained only on doctrines, will never be anything but feeble and vacillating. But if the authority of the Holy See were visibly displayed in majestic buildings, imperishable memorials and witnesses seemingly planted by the hand of God himself, belief would grow and strengthen like a tradition

⁴ The choice between the two is considered in Ferrero (2009).

⁵ What cannot be derived from the Klein and Leffler model, but is rather a difficulty in their model (elaborated on in Shapiro, 1983), and is apparent with the standard model of advertising expenditures, is that these expenditures also serve as a barrier to entry, since a contender will have to duplicate them or find some other way to build a reputation, which may involve similar "sunk" investments. But in this context, the strategy can backfire. Indeed, when Martin Luther went to Rome in 1510 and saw all the palaces, buildings and other manifestations of the Church's wealth, he became enraged. See also Ekelund et al. (2002) on this point.

from one generation to another, and all the world would accept and revere it.” (Duffy, 2006, p. 181).”

According to Duffy, “These words in many ways provided the manifesto for the Renaissance papacy.

3.3 The Book. Thirdly, in all of the monotheistic religions, one of the most important ways to buttress the claim to represent the One God is via the Holy Book, (The Old Testament, The New Testament, the Koran, etc). The Holy Book provides the Authority that the Church uses to buttress its claim by telling “the” story of the relationship of God to Man. Thus many of the Prophets depicted in the Sistine Chapel are shown with an enormous book, either reading it, gazing at it, or simply holding it.

Another point is that the Holy Book then also serves as a check on the organized religion or the government. Samuel Finer (1997) thus describes the ancient Jewish Kingdom as the first *constitutional* monarchy, because the religious groups could consult the Bible to see if the actions of the king were in accordance with it, and if not, they could disobey and oppose them. This point is elaborated in O’Leary (2009) with respect to theocracy in general⁶.

4. Papal regimes

4.1. Logic of the analysis. In this section we examine how well the political exchange model of dictatorship explains the behaviour of the Papal theocracy. Specifically, we provide some evidence that theocracy is not a distinct class of dictatorship. Rather, it may fit into any of

⁶ This point is also the key to understanding “fundamentalist” movements, which essentially look back to the Story in the Holy Book and compare what is said there to what is being done in the name of the religion by those who claim to represent Him. According to Armstrong fundamentalism is relatively recent (Armstrong, 2008). The point also provides the basis for constant re – emergence of radical religion as described by Stark and Finke (1993) for the US.

the four categories of dictatorship studied in Wintrobe (1990, 1998): timocratic, tinpot, tyrant, and totalitarian. As we have suggested above, the only differences between theocracy and “standard” dictatorships are the nature of the base of loyalty and the effects of restrictions on economic activity, possibly compensated by a capacity to generate internal repression that could affect economic life and performance. These shift the power into money and money into power functions, thus generating different equilibrium levels of loyalty and repression – the features that distinguish the types of dictatorship. To substantiate this claim we look at the history of the most durable (in fact, with a so far kept promise of eternity) and far-reaching example of theocracy, the Papacy.

The choice of the Papacy as a testing ground offers two main advantages. First, the history of the Papacy is very long and very well documented, by historians of all periods, countries, religions and persuasions (among the many, Kelly 1989; Hilaire, 2003; Gelmi, 1996; Livingstone, 1997; Duffy, 2006, Ekelund et al., 1996) and by apologetic documents, starting from the *Liber Pontificalis*. Second, in 2,000 years the Papacy had to face a wide array of historical circumstances, from the Barbarian invasions to internal power struggles, from exiles to change of residence, from schisms to multiplications of the number of converts, as well as relations with all sorts of political regimes. To all these circumstances the Popes had to react, thereby revealing information about their personality and, what interests us most, about the nature of their regime. We evaluate this information not only to see to which of the four types of dictatorship each period of the Papacy seems closer, but, most of all, to argue that never has the Papacy taken any new and distinct form.

There are two ways to carry out this analysis. One is to categorize all the Popes (263 from St. Peter to Benedict XVI, Antipopes excluded, according to the official records), to see who most closely resembles the timocratic type, who the tyrant and so on. This exercise would be

rather sterile, first because it is quite difficult and arbitrary to define where a difference of behaviour among two Popes legitimizes putting one before and the other beyond the line separating two types of dictatorship; second, because such an approach would deal more with the personal temperament of the Popes than with the objectives, the constraints and the shocks that the Papacy was facing in a particular period, which is what really matters for our purposes. We thus prefer a “comparative statics” approach, whereby we look at periods of the Papacy and examine how it responded to an external shock that, according to the political exchange model, should make it evolve from one type of dictatorship to another. Popes in a certain period are, on the average, tinpots, tyrants or totalitarians⁷.

We limit the examination to the period when the Papacy exerted in fact some temporal power, thus to a time interval stretching from the end of the Vth century, with the Pontificate of Gregory the Great, to 1870, when the Kingdom of Italy conquered Rome. Limiting the sample to the temporal power avoids overstretching the concept of theocracy, which the literature always conceives as a political regime over a given territory. Moreover, the temporal power enabled the Papacy to develop a “domestic policy”, in terms of the rule of the Papal states, that provided the Pope with some freedom of action and most of the financial means necessary to carry out his “international policy”. This consisted not merely in the relationship between the Pope and other

⁷ As any interpretative exercise, this one too can be disputed. Yet, possible controversies must in our case be considered with particular attention, since our classification of the Papal regimes becomes an explanatory variable in the econometric tests of the predictive power of the theory. We have therefore taken four safeguard measures to guarantee that our classifications are both plausible and the outcome of independent judgments. First, the evaluations of the Papal regimes proposed in the standard literature on the history of the Church seem to converge towards our classification much more than they tend to diverge. Second, as we shall see later on, the most noticeable disagreements, those of Waley (1966) for the Popes of the XIIIth century and of Partner (1999) about the Popes of the 1570-1690 period, have been subject to robustness tests that do not alter our results in a significant way. Third, we have asked to a group of three professional historians of the Catholic Church, acquainted with the political exchange model, to provide their independent classifications. These turn out to be strikingly similar to ours: in 2 cases the suggested regime shifts were exactly the same, in one case the only difference was the inclusion of a 10th regime after the Renaissance Popes. Finally, the same panel of historians concurred that the analysis based on regime shifts rather than on single Popes was preferable also on the basis of the methodologies of historical research.

states and empires, but in his guidance of the Church and of all the Christians, even when they were subjects of other states.

This link between the Pope's "domestic" and "international" policy provides the basis both for our comparative statics exercise and for the classification of the Papal regimes. The comparative statics looks at how shocks to the ability of the Popes to raise revenues domestically and from the Church at large affect the money into power and power into money functions. An increase of revenues from the Papal States, due to an extension of their territory (tax base) or to an improvement in their administration increases the Pope's ability to act and can be interpreted as an upward shift of his power into money function $B(\pi)$. That is, any given level of π now translates into a higher budget, as shown in Figure 4. The result is more power and a higher budget, as shown in the new equilibrium in Figure 4.

If the Pope has more power and a bigger budget, that should increase the likelihood of a totalitarian Papacy. Conversely, a change which reduced the power and budget of the Papacy should increase the likelihood of tinpot Popes. These are the two categories used by Islam and Winer (2004) in their empirical tests of the dictatorship model on secular, contemporary regimes using indexes of freedom. Yet, the distinction between the domestic and international policy of the Papacy allows us to infer how much repression and loyalty was used in every period, making it possible to identify also the off-diagonals, i.e., the tyrant (high repression, low loyalty) and conceivably the timocrat types (high loyalty, low repression), though we do not use this last category here.

The point is that the Pope may rule within the territory of the Papal States using a combination of loyalty and repression, but can only rely on (Catholic) loyalty to pursue his "international policy". Having no army, the Pope can only count on the devotion and reverence of the faithful who are subjects of other, secular, political powers. When a Pope uses an expansion

in his capacity to raise revenue to increase his power both domestically (by means of repression and/or loyalty) and internationally (by means of loyalty only) we have a totalitarian Pope⁸. Gregory VII, with the subjugation of the Roman families and successful excommunication of the Emperor, is the clearest example of this type. When the greater resources are used only to repress in the Papal States, without increasing the Pope's stance abroad, as in the case of the Popes of the Restoration, we have a tyrannical Papacy.

A tinpot Papacy generally follows a tightening of either or both of the constraints. That is, a fall in the capacity of the Pope to raise revenue (inward shift of the $B(\pi)$ curve) or of his capacity to convert money into power $\pi(B)$ tends to produce tinpot Popes (see Figures 3 and 4). Such Popes appear unable to play any international role nor to control matters at home, as during the so-called "Dark Century" of the Papacy (approximately between the Xth and the XIth century). Finally, it is conceivable that there are examples of timocratic Popes, who used only loyalty to pursue both their domestic and international policy. An example might be Nicholas V, who ruled by providing public goods at home (by restoring the city's buildings and infrastructures) and abroad (by brokering peace deals). However this claim would have to be buttressed by further research, and we confine ourselves here to the three categories: tinpots, tyrants, and totalitarians.

[Figures 3 and 4 about here]

4.2. Historical analysis and classification of the Popes. In 1,300 years of temporal power many events affected the Papal regime and the behaviour of the Popes. Most of the historical and

⁸ It may sound odd to apply the concept of totalitarianism, generally associated with the likes of Hitler, Stalin or Saddam Hussein, to the Popes. The religious mission of the Catholic (i.e., Universal) Church, its responsibility on the body and soul of all believers and non believers, its promise of eternal salvation make the Papacy inherently biased towards totalitarianism. Bernholz (2001) defines a totalitarian regime as one where "believers" in an ideology are convinced that the others have to be converted to the values of the ideology for their well-being. Believers spend resources on winning new converts, even enemies of their creed whose presence is obnoxious to them, and on securing the secular power of the State. Here we apply the concept of totalitarianism to the Papacy using the strict lexicon of the theory, i.e., as a regime that maximizes power by using both repression and loyalty.

encyclopaedical sources (e.g., Hilaire, 2003; Kelly, 1986; Livingstone, 1997; Duffy, 2006) concur in affirming that at least nine major events, what we may refer to as permanent “structural breaks”, affected the Papal regime: the establishment of some territorial dominion during the VIth century, the ensuing loss of it after the Lombard invasion and the contemporaneous strengthening of Byzantine rule in Southern Italy, the creation of the Papal State under Charlemagne, the crisis of the Empire during the Xth century, the economic renaissance after the year 1,000, the captivity of Avignon, the return to Rome, the Reform and, finally, the demise of the Papal State under Napoleon. Not all these events have the same historical importance, and others could make the list, but these are the ones that all our sources consider as turning points. We consider them in turn.

I. Totalitarian. The barbarian invasions of the IVth and Vth century and the 20-years long war between the Byzantines and the Goths in Italy left the peninsula depopulated and impoverished. In a sense this was a boon for the Church. With Constantinople far away and its representative, the Exarch, powerless and secluded in Ravenna, the Church emerged as the sole authority left in all that misery. At those times many of the traditional Roman families bequeathed their vast land holdings to the Church before becoming extinct, or their progeny “retired from the world” and took the clerical or monastic vows (St. Benedict is the most famous example). This transfer of land provided the first financial underpinnings to the Church of Rome; while the large influx of highly cultivated people made available a large “workforce” to carry out its activities steadily and efficiently. In terms of the theory of dictatorship these developments can be represented by an outward shift of the power into money $B(\pi)$ function (as depicted in Figure 4) because, at any level of π , the Pope is now able to raise more revenue. The pontificate of St. Gregory the Great is the best example of this shift. A learned monk from a very wealthy Roman family, with immense estates in Sicily (the only region untouched by invasions), Gregory set

about reorganizing the patrimony of the Church, making it the largest landowner in the West, and its hierarchy, filling it with efficient and well trained monks (Duffy, 2006). The extra revenues thus generated allowed the Pope to provide protection to his subjects threatened by barbarian invasions and to buttress his claims of superiority to the other Patriarchs before the Emperor. Gregory's victory in this controversy immensely raised the prestige of the Roman Pontiff; it was in fact to the Pope that the population of Italy and the West increasingly turned in order to receive spiritual comfort and protection from the barbarians, the two most important public goods sought at those times. Gregory was also the first Pope to start a truly missionary activity, conforming the liturgy of the newborn Church of Ireland to the Roman one, and converting Anglo-Saxon England. All these activities can be seen as an upward shift of the power into money function, because they marked the beginning of the ability of the Church to raise revenues and provide public goods beyond the territories under its direct rule.

All in all, Gregory's pontificate marked two developments relevant for the application of the theory of dictatorship to the Papacy. First, it provided the essential features for the application of the theory, as he was the first Pope to organize a political power over a territory. Second, he claimed (and to a great extent secured) a great deal more authority over the spiritual life of the believers and succeeded in converting many who were not. This spiritual authority in turn reinforced his temporal power. In his use of both loyalty and repression to advance his power Gregory appears to fit the description of a totalitarian ruler.

II. Tinpot. After Gregory's death, the Papacy lost the dominance over many of its territories, both because of high turnover of Popes in the first half of the VIIth century (there were 10 elections between Gregory's death and Martin I's accession in 649) and because of the expansion of Byzantine rule in Southern Italy. Having to fight terrible enemies (the Avars, the Persians and finally the Arab armies), the Empire squeezed all the resources it could from the

lands not under barbarian rule. The Papacy yielded, both because of the lack of a continued guidance, but most of all because the battles of the Emperor were seen as Holy Wars: the Persians had initially conquered the Holy Land, while the Arabs subtracted all Asia and the Southern Mediterranean from Christianity. Out of these continuing crises arose a close identification between the Church and the Empire, with the Emperor looking the defender of Christian religion much more than the Roman Pontiff. The Pope again became subjected to the Empire, in terms of temporal power (the estates of the Church returned under the Byzantine rule and fisc), of political prestige (it became compulsory that the elected Pope received the approbation of the Emperor before he could be consecrated) and, most of all, in terms of religion. To avoid a division from Constantinople, Pope Honorius I had to compromise the doctrinal purity of the Papacy by accepting the Byzantine's theory of monothelitism (two natures, divine and human, coexisted in Jesus, but only one divine will) against the Roman canon of two natures coexisting in one person⁹. During this period of "Byzantine captivity", the Popes' ability to exert repression and to command loyalty suffered. From the theoretical point of view, both the money into power and of the power into money functions appear to have shifted inwards. The Popes were left with the minimum to subsist and manage the organization of the Church in Rome, with no possibility to direct missionary work. In a word, they looked like tinpots.

III. Tyrant. The situation changed significantly when Popes Zacharias, Stephen II and Hadrian I struck an alliance with the Kings of the Franks and (re-)established the Papal state in the second half of the VIIIth century. Pepin and later Charlemagne subtracted central Italy from the Lombards and donated it to the Pope. Upon these territories the Pope ruled on behalf of St. Peter, under the protection of the Holy Roman Empire. The stabilization of the temporal power

⁹ This is an important problem: still today, the standard argument against the dogma of the Infallibility of the Popes in matters of doctrine is that Honorius I *did* err when he accepted monothelitism.

(justified by the famous forgery of the “Donation of Constantine”) in part recreated the situation of the reign of Gregory the Great. The Pope was able to raise revenues in his lands, as the establishment of the *domuscultae* (lands earmarked as the Popes’ private property), the organization of a land army and the restoration of Roman churches and aqueducts testify. In terms of the model, these events can all be interpreted as an increase in the capacity to raise revenues at any given level of power, (an upward shift of the power-into-money function). Consequently the Pope was able to increase repression in his territories. But the “international policy” of the Pope was severely limited. Charlemagne made it clear that Christians were to be loyal to the Emperor first and foremost: imperial power came directly from God, not from the successor of Peter. The pope was to be approved by the Emperor, just as under the Byzantine captivity¹⁰ and so were bishops. Even in matters of religious dogmas Charlemagne took the leading role (Barraclough, 1968; Livingstone, 1997). In brief, the increased temporal power did raise the Pope’s powers of repression at home, but it did not augment loyalty to the Papacy, neither within the *Christianorum Res Publica*, nor among his new Roman subjects. In 799 Leo was mobbed by a crowd led by the nephew of his predecessor and had to flee to Paderborn under Charlemagne’s protection. Overall, the situation of the Popes of these times resembles that of tyrant dictatorship.

IV. Tinpot. Beginning in the IXth century, a series of events greatly reduced the strength of the Empire, upon which the temporal power of the Popes rested. Those included the demise of the Carolingian Empire, the confrontations between the Empire and the Pope at the times of Pope

¹⁰ In his approval letter for the election of Leo III, Charlemagne exposed his vision of the roles of the King and of the Pope. “My task, assisted by the divine piety, is everywhere to defend the Church of Christ; abroad by arms, against pagan incursions and devastations of such as break faith; at home by protecting the Church in the spreading of the Catholic faith. Your task, Holy Father, is to raise your hands to God like Moses to ensure victory of our arms. [...] May your prudence adhere in every respect to what is laid down in the canons and ever follow the rules of the holy fathers”. Doubtless the most important role is the Emperor’s who is assisted directly by God. The Pope must say his prayers, and is bound to follow the laws.

Nicholas I, the struggles between the Emperors over the divisions of the Empire throughout the IXth century and a new wave of barbarian and Arab invasions. The papacy in fact became the possession of the great Roman families (the Theophylacts, the Crescentii, the Tusculani), who regarded it as a ticket to local dominance. Many of the Popes bribed their way to the Holy See, some were elevated from the status of layman to Pope in one single day, most had mistresses: Pope John XI, for example, was the illegitimate son of Pope Sergius III and of his mistress Marozia Theophylact. No wonder that the Xth century is remembered as the “Dark Century” of the Popes. Political power and repression was in the hands of the Roman families, and loyalty to the Popes was nowhere in evidence: a third of the 40 Popes elected between 872 and 1012 died in suspicious and often horrendous circumstances. With a few notable exceptions, chiefly that of Gerbert of Aurillac, Pope Sylvester II, these Popes were all tinpots, to all appearances interested in consumption. One of them, Benedict IX, the only man who served as Pope for three discontinuous periods, was eventually given 650 kilos of gold to abdicate; allegedly he needed the money to marry¹¹. The instability of the Papal regime of those times can be interpreted as implying that those Popes were near to or below the II_{min} line, i.e., the line depicting the minimum level of power necessary to stay in office.

V. Totalitarian. During the XIth century a series of shocks contributed to restore the power of the Papacy. They can be understood as outward shifts of the money into power and of the power into money functions, thus leading the Papacy towards totalitarianism. Examples of these shifts are shown in Figures 3 and 4. The first set of factors raised the amount of revenues that the popes could obtain from a given amount of π (the $B(\pi)$ function). The restoration of the force of the Empire under the Ottonian dynasty slowly decreased the influence of the Roman families and

¹¹ This information is reported in the *Liber Gomorrhianus* of St. Peter Damian, written around 1050.

re-established the close links between the Empire and the Papacy of the times of Charlemagne. Otto III regained Ravenna and the Pentapolis for the Papal State, greatly increasing the revenues for the Pope. Also the “economic boom” that characterized Western Europe after the year 1,000, due to a restored confidence that the world was not about to end and to technological advances in agriculture, improved the Pope’s finances. Other forces can be seen as shifting outwards the money-into-power $\pi(B)$ function; for example, the Empire staffed the hierarchy of the Roman Church with its own men and clergy, raising the ability of the Papacy to collect revenues and preventing their appropriation by the Roman families. But by far the most important development of these years was the Cluny reform.

Cluniac monks promoted a change of the behaviour of the Church, fighting corruption, simony (the acquisition of religious offices by cash payments), clerical marriage and generally raising the spiritual and educational standards of the Church (Cantarella, 1993). The very rapid spread of Cluniac monasteries and of ordained monks is evidence of the great loyalty that this movement commanded and transferred to the Church in general. When the Cluny movement captured the Curia and Papacy, the Pope was again able to receive assets, both financial and in terms of human capital, from sources outside its temporal power. Most of all, Cluny’s statute marked a stark innovation compared to all other Christian institutions which had existed previously. First the Cluniac monks and then the Papacy were granted complete freedom, in the words of the Duke William of Aquitaine, founder of the first Cluniac monastery, “from our power, from that of our kindred and from the jurisdiction of royal greatness”. Until then, religious freedom meant freedom under the King. According to the Cluniac movement it meant freedom *from* the King, among other things.

The election of Cluniac popes Leo IX and, most of all, Gregory VII, resulted in a remarkable change of ideas and of regime. Gregory VII’s *Dictatus Papae* turned the relationship

between the Church and the Empire on its head, compared to the ideas of Charlemagne. Under the new set of rules, the Pope alone is Universal (Catholic), he is the only who can call general councils, authorize or reform canon law, depose or translate bishops (i.e., move them to another diocese). Most of all, for the first time the Pope claims the power not only to create, but also to depose emperors, to refuse them the sacraments (excommunication) and to absolve the subjects from their wicked rule. Never had the Papacy claimed so much power. The Pope used it to increase repression in the Papal States and to command unprecedented loyalty: the effective excommunication of Henry IV, who had to go to Canossa barefooted to ask for pardon, made it clear to whom the allegiance of individual subjects' and barons went, even in Germany.

The century between the Canossa and the rise of Emperor Frederick II (beginning of the XIIIth century) saw 19 Popes between Gregory VII and Innocent III, 11 of which were monks, and marks the pinnacle of Papal power. Urban II launched the Crusade that freed Jerusalem from Muslim control, Alexander III successfully confronted Frederick Barbarossa, the Popes started to travel and to spread their ambassadors (the *nuncios*) all over the world, making the Papacy a truly international institution. Moreover, these are the years when the monk-ridden Curia established the legal machinery that immensely consolidated the papal authority and ability to govern. Examples of this legislative production are the *Liber Censuum*, an exhaustive account of all sources of Papal funding designed to maximize revenues (Duffy, 2006), and the *Concordia Discordantium Canonum*, a method proposed by the monk Gratian in 1140 to sort out legal disputes when laws are conflicting or unclear. Innocent III, probably the most powerful Pope ever existed, extended papal power in Italy, adding lands in the Marche, Tuscany, Campania and Umbria to the Papal state, intervened in succession disputes as far as in Norway, disciplined the mass and what came to be known as the Christian orthodoxy in the Fourth Lateran Council (that

settled the doctrine of Transubstantiation) and promoted two new great monastic orders, the Franciscans and the Dominicans. This is the period of the truly totalitarian Papacy¹².

VI. Tyrant. All this assembling of power eventually backfired on the Papacy. The Pope behaved like a true monarch, with its machinery of power, the canon law, his court, the Curia and large number of subjects and financial resources. But as the XIIIth century progressed, the Papacy would gather around itself more and more the trappings of monarchy. After the reform of the papal election in 1059, which transferred from the Roman aristocracy to the Conclave of the Cardinals the power to elect the Pope, the Cardinals developed a strong sense of collegiality that eventually evolved into opposition to the power of the Pope and provided the basis for the doctrine of the superiority of the Council to the Pope. Moreover, as the papacy became more international, it forfeited Roman loyalty. The establishment of the Roman *Comune* during the XIIth century made the city an increasingly unsafe place for the Popes, who were constantly threatened with revolution: three of them (Eugenius III, Hadrian IV and Alexander III) were temporarily driven out of the city by the citizens, while Lucius II died of wounds sustained while storming the Capitol Hill. Finally, the empire reacted to the expansion of the power of the Church, with Frederick II invading the Papal States, and receiving the loyalty of the Ghibbeline party in Italy against the Papal supporters, the Guelphs. The split between Guelphs and Ghibbelines, which did not exist at the times of Innocent III, shows that loyalty to the Pope was on the decrease.

¹² It is such improvement of the structures and efficiency of the Papal government that lead us to classify the Popes between Urban II and Innocent III as totalitarian, contrary to Waley (1966) who sees a decline of the power of the Popes in that period (but then how to consider Pope Alexander III, who fought and basically won against Emperor Frederick Barbarossa in Northern Italy?). The personality of the 16 Popes between Urban II and Innocent the III may be less outstanding than these two, but the “machine of Papal government” remained much more efficient than any other countervailing center of power of those times.

The Papacy was nonetheless still able to effectively rule and exert repression on its territories, as the establishment of the Inquisition in 1231 illustrates. High levels of repression with low(er) levels of loyalty are a sign of a tyrannical dictatorship, and it is no accident that most historians of the Church, or chroniclers such as Dante Alighieri, depict the Pope that best epitomizes this Period, Boniface VIII, as a tyrant.

VII. Tinpot. After Boniface VIII the Popes moved to Avignon for 70 years, and upon their return to Rome, the Great Schism began and lasted 39 more years, until the Council of Constance solved it in 1418. In this century the high papal prestige and unchallenged papalist theory of the era of Innocent III were gone forever. The Popes from Martin V to Nicholas V faced the task of reconstructing Rome and the Papal State and re-establishing the credibility of the Papacy in the Community of all the Faithful under an enduring political weakness. So we classify all these popes as tinpots.

VIII. Tyrant. Four events contributed to the restoration of Papal authority during the Renaissance. The inconclusiveness of the Councils after Constance discredited the Conciliar movement and restored the Papal authority; the possibility of raising revenue in new original ways, such as the pilgrimages and the Holy Years; the further evolution of the administration and jurisprudence of the Papacy, far superior to any of the then emerging nation states; the economic boom that followed the black plague of the XIVth century and the human capital boom that was the Renaissance all contributed to the increased power of the Papacy.

But these Renaissance Popes do not appear totalitarian; they are best understood as tyrants. The increased revenues were used not to buy loyalty abroad but in a competitive attempt to outshine other princes and to wage wars against other princes, as in the case of Alexander VI and Julius II. Most of all, the Popes became secularized to the point of failing to understand the spiritual unease that bred the Reform.

IX. Tinpot. This period begins in 1534, when the kingdom of Clemens VII, marked by the sack of Rome of 1527, ended. From that time onwards the Popes were never able to attain the international standing that they used to have. The Reform defused the power of excommunication, since the outside political powers could opt out of Catholicism when in deep conflict with the Pope and possibly also seize the wealth of the Church, as Henry VIII did in England in 1534. The consolidation of the modern nation states further eroded the loyalty to the Popes; they increasingly had to surrender to the demands of the European monarchies, even in matters related to the Catholic Church, such as in the case of the expulsion and then dissolution of the Jesuit order by Clement XIV in the XVIIIth century. Many of the Popes of the XVIIth and XVIIIth century simply “enjoyed the Papacy”, to use Leo X’s famous expression. They used it to promote the wealth and political stature of their families (these centuries are the heyday of nepotism), as well as the arts and culture (Baroque Rome was built in these times). But as time passed and the resources of the Papal state became increasingly exhausted, the Popes of the XVIIth and XVIIIth century retrenched from a tyrant-type of behaviour to essentially a tinpot type of behaviour. Even the most powerful instrument of repression then in the hands of the Popes, the Inquisition, backfired. In the age of the Enlightenment, the blatant injustice of the process to Galileo caused immense damage to the prestige of the Popes and of the Church in general, and further reduced the loyalty it was able to summon from the most advanced quarters of society.

The rise of Napoleon brought the temporal power of the Church to an all time low. In 1799 Pius VI was brutally removed from Rome when terminally ill and died in Valence without a Christian burial. The official obituary then released announced “...the death of citizen Braschi, exercising the profession of Pontiff”. In 1808, the French occupation of Rome produced the first demise of the Papal state and the annulation of the temporal power, as well as the consequent imprisonment of Pius VII between Rome, Savona and Paris.

X. Tyrant. The experience of the loss of the temporal power and the fear that it might happen again became the drivers of the policy of the Popes of the Restoration. Pontiffs like Leo XII or Gregory XVI tried to secure their rule over the Papal States by means of concordats, closure to all new ideas brought about by the Revolution or even Liberalism and support of the French and Austrian armies. Repression mounted, and the temporal power of the Popes became a byword for obscurantism and backward government.¹³ It was an awkward spectacle that the Father of all the Faithful should rule seated on foreign bayonets, after his subjects made him flee in 1848. In a sense, also the declaration of the dogma of the Infallibility of the Pope by the First Vatican Council in 1870 was a response to his failing temporal power. The lack of loyalty and the use of repression make the Restoration Popes, the last to hold the temporal power, appear as tyrants.

In this rather brief historical excursus, we have used the theory of dictatorship to illuminate the behaviour of the Popes by showing how the regime reacted to shocks that affected its domestic and international policies. These shocks produced different types of popes which we have tried to capture using the categories of dictatorship: tinpot, tyrant and totalitarian. Figure 5 summarizes the analysis with a timeline of the Papal regimes. The next sections use this classification to test some implications of this model.

[Figure 5 about here]

5. Durability and opposition to the Papacy

5.1. Durability. One of the most straightforward predictions of the political exchange model of dictatorship is that tinpot regimes are characterized by the maximization of the

¹³ Pope Gregory XVI pushed his backwardness to the point of refusing the construction of railways in the Papal States, referring to them as “chemins d’Enfer” instead of “chemins de fer.”

dictator's consumption under the constraint of staying in power. Whatever extra resources the tinpot receives are used for his personal consumption, not to strengthen his power. The ensuing relative weakness of the tinpot regimes makes it more likely that they are overthrown by opposing forces. *Ceteris paribus*, a tinpot dictator should thus be shorter lived than a totalitarian and/or a tyrannical dictator.

The Papacy is an excellent testing ground for this hypothesis. First, being a single regime that comes in different dictatorial variants, it provides the *ceteris paribus* condition mentioned above that is lacking in the contexts where the political exchange model has been tested previously¹⁴. Second, unlike recent times, when a Pope usually reigns until his death, in the (good?) old days it was often the case that Popes abdicated (Celestine V “...*che fece per viltade il gran rifiuto*”¹⁵ is the most famous example), were deposed (two of them even consecutively, Leo VIII and Benedict V), murdered (Leo V, John X), died of an heart attack when elected (Stephen II, in March 752), of wounds suffered when storming Rome's Capitol Hill (Lucius II) and even served three non consecutive terms and then resigned to marry their mistress (Benedict IX). The probability of such premature endings of a Pope's kingdom, and hence its durability, is negatively correlated with his political strength. But even in more recent times, when accidental finales went out of fashion, many Conclaves chose to elect an old and feeble Pope in order to solve a stalemate, at the cost (or with the explicit intention) to have a short and weak Papal regime. According to many commentators, in 1958 the election of John XXIII, 77 years old when raised to the Holy Seat, was intended to provide a short transition to a younger Pope who would then modernize the Church after the difficulties of the Papacy of Pius XII. But Pope John XIII's

¹⁴ See Wintrobe (2006) for a review of these tests.

¹⁵ “...the coward who made the great refusal” Dante, *Inferno* (III, 60).

calling of the Second Vatican Council suggests that the Holy Spirit held different views than the Cardinals...

We can draw on the classification exercise described in section 4 and on the long time series and wealth of information provided by the Papacy to test the following model:

$$durability_i = a_0 + a_1 \mathbf{type}_i + a_2 age_i + a_3 elife_i + \varepsilon_i \quad (2)$$

The model is deliberately left as simple as possible not to impose too much theoretical structure on historical data. The variable *durability* is approximated as the number of days in which Pope *i* reigned, since the day of his election to the day when he ceased to be Pope. These dates are according to the official records of the *Annuario Pontificio*, available from www.tuttiipapi.it. The regime **type** is a vector of three dummy variables, *tyrant*, *totalitarian* and *tinpot*, which take the value of 1 when the category occurs and 0 otherwise. The categorization follows the comparative statics exercise of the previous section, which looks at regime shifts rather than at the characteristics of the single Popes. The dummy variables thus determine a series of long lasting intercept shifts. Had we chosen to the alternative approach and categorized all the single Popes we would have obtained a much greater variability of the **type** covariates and ensured a much better fit of the model. The choice of remaining consistent throughout the analysis slants the specification of the model against our hypothesis; any empirical support for the durability hypothesis is even stronger evidence of the predictive power of the political exchange model. The variable *age* marks the age of Pope at the time of his election; it is drawn from Kelly (1989). As this information is often missing, especially for the Popes of the Middle Ages, we report the results of the estimates with and without the variable *age* (Model I and Model II, respectively). Finally, *elife* captures the life expectancy of the Popes at the time of their life. Following to the recent findings of Oeppen and Vaupel (2002), *elife* is modeled as a simple

linear trend; differences in life expectancy of the average individual and of a member of the elite like a Pope amount to a parallel shift of the function. The expected signs are $a_1 < 0$ when **type**=*tinpot*, $a_1 > 0$ when **type**=*totalitarian*, since the intercept then captures the case of the *tyrant* Pope, whose durability should lie between the tinpot and the totalitarian; $a_1 < 0$ when **type**=*tinpot*, $a_1 < 0$ when **type**=*tyrant*, as the intercept then captures the case of the *totalitarian* Pope, which should be a stronger regime than the other two. Moreover, $a_2 < 0$ (a higher age at the time of election should be correlated with a shorter Pontificate) and $a_3 > 0$ (longer life expectancy should produce a longer Kingdom). As the dependent variable in equation (1) takes the form of counts - the length of a Papacy in days varies between 1 and some positive unknown number - we estimate equation (1) by a Quasi-Maximum Likelihood Poisson count model. Table 1 describes the results, while Figure 5 and 6 plot the fitted and residual values for Models I and II.

The estimated coefficients are in line with the expected ones, and are all highly significant. Holding only life expectancy constant (Model I) the data support the hypothesis that tinpot Popes are weaker and therefore tend to have shorter kingdoms than both totalitarian and tyrant ones: the coefficient for *tinpot* marks a downward shift (-0.139 points), while that for *totalitarian* an upward shift (+0.1128 points) of the intercept. The intercept has the expected positive value: Pontificates last a positive number of days. Holding both age and life expectancy constant (Model II), tyrannical Popes appear to have a shorter kingdom (-0.614) than totalitarian (the intercept benchmark) and tinpot ones (-0.591 with respect to the benchmark).

The plot of the residuals reported in Figure 5 shows the goodness of fit of Model I through the whole history of the temporal power of the Papacy. The horizontal axis reports the Popes, from St. Gregory I to Pius IX. The dashed line indicates the fitted values, positively sloped because of the incremental linear trend, and their vertical shifts coincide with the structural changes that the Papacy underwent. There is some evidence of over dispersion around

the 30th-40th Pope of the sample, namely around the IXth-Xth century, when the Carolingian Empire was crumbling and certain Popes, like Nicholas I the Great, enjoyed a higher political power than the normal one for a tinpot because of their strong personality and exceptionally long kingdom. Another batch of over dispersion occurs towards the end of the sample, mainly due to the record-breaking duration of the kingdom of Pius IX (almost 32 years, second only to St. Peter). Quite importantly, there is no sign of over dispersion during the Dark Century (approximately between the 40th and the 60th Pope). This rather peculiar period of the Papacy does not drive the results. Nor would the introduction of a regime shift for the Popes between Urban II and Innocent III, as suggested by Waley (1966), and between 1570 and the end of the XVIIth century, as suggested by Partner (1999). Consideration of the age of the Popes at the time of the election (Figure 6) reduces the over dispersion and improves the goodness of fit of the model by a factor of 3.5. Over dispersion now seems confined towards the end of the sample. Yet data are often missing, as can be clearly seen in the plot of the residuals at the bottom of the diagram.

[Figure 5 and 6 about here]

5.2. Source of opposition. Weaker, tinpot like Papal regimes tend to receive opposition from “within the system”, i.e., from the Curia, from other Cardinals who wish to become Pope (an example is the famous episode of Cardinal Benedetto Caetani, later pope Boniface VIII, who used to hide at night behind the curtains of the bedroom of pope St. Celestinus V repeating the words “I am the Archangel Gabriel and I wish you to resign” - until the holy man, terrified, gave in) and, especially during the Dark Century, when the Roman families appointed the Popes, from families rival to the Pope’s one. Stronger papal regimes are more likely to withstand and deter such forms of opposition. Yet, because that, they pose a more serious threat to other political powers that, in competition with the Papacy, aspired to an ecumenical rule of the whole

Christianity, or at least of the Christians living under their political jurisdiction. First the Eastern Roman Empire of Constantinople, then the Holy Roman Empire and finally the nation states (especially France) often came into conflict with the Papacy. The Investiture Controversy of the XIth century, the fights between Guelphs and Ghibbelines, the captivity of the Papacy in Avignon and the sack of Rome of 1527 are well known examples of these clashes. But the usual way for these political powers to contrast the power of the standing Pope was the election of an Antipope. The Antipope constituted a threat both to the personal legitimacy of the standing Pope and to its ability to govern the whole Christianity, i.e., to be a single theocrat. To elect an Antipope, the challenging political power had first to credibly accuse the standing Pope of sins that made him an unworthy successor of St. Peter, e.g., of being simoniac, Antichrist, “false monk” and the like. Then a synod or a conclave of cardinals had to be gathered, and the Antipope duly elected. This generally created a split of allegiance of the Christian countries between the various claimants to the succession of St. Peter; during the Great Schism of the XVth century, there was one Pope and one and for a period two Antipopes for almost 50 years in a row. The election of an Antipope thus constitutes the empirical restriction for testing the “source of opposition” hypothesis, that stronger, totalitarian Papacies tend to be opposed more by external political centers of power than by internal forces.

The *Annuario Pontificio* records 38 Antipopes, two of them saints, three who stood for more than 15 years (St. Hyppolitus, Clement III and Clement VII) one of them who managed to be recognized as a “true Pope” in the official records (Leo VIII). In our sample of 195 Popes, there are 31 Antipopes. As the practice of challenging a Pope with an Antipope *de facto* became obsolete after the Reform, we test the source of opposition hypothesis on the whole sample of the temporal Popes, and on a shorter sample of the temporal Popes until the Reform (specifically, from Gregory I the Great up to and including Leo X, whose *bullae pontificiae* was burned by

Luther). As there are 154 Popes in this smaller sample, the probability that an Antipope challenges a Pope is 1:5 - actually higher, as the imperfect overlapping of their tenures often created the situation when an Antipope challenged more than one Pope.

We specify the empirical model as follows:

$$Antipope = f(\text{type}, \text{days}, \text{nationality}) \quad (3)$$

Equation (3) is estimated by a ML binary probit model with Huber-White robust covariances. It essentially models the probability that Pope *i* has been challenged by an Antipope, conditional on his being of **type** *tinpot*, *totalitarian*, *tyrant*, on the expected length of his kingdom, and on his **nationality** being *Italian* and/or *Roman*, or neither. In the previous section we have explained how only totalitarian Popes pursue an international policy and can be threatening for other all encompassing political powers. Only totalitarian Popes thus should be challenged by an Antipope. We expect a positive and statistically significant coefficient when **type** is *totalitarian*, and a statistically insignificant one when it is either *tinpot* or *tyrant*. Because there is no reason to challenge a short lived Papacy, the expected sign on *days* should be positive. Being an *ex ante* measure, *age* should better capture the relationship between length of the papacy and probability of having an Antipope. The missing values, however, create problems of dimension of the source matrix in the context of a binary model, so we use the *ex post* variable *days*. Finally, since the competing centers of power generally lied outside Italy, we verify whether the **nationality** of the Pope, identified as either *Italian* or more precisely *Roman* against the neither of the alternatives, affect the probability of an election of an Antipope. Table 3 reports the results.

The data generally support the “source of opposition” hypothesis. Model III and IV exploit the whole sample; in Model III **type** takes the form of *tinpot* and *totalitarian* (the intercept thus captures the case of a tyrant Pope); in Model IV **type** refers to the *tyrant* and

totalitarian regimes, with the intercept benchmarking the *tyrant* Pope. As the political exchange model predicts, the probability of having an Antipope is higher under *totalitarian* regimes: the coefficient is positive and statistically significant at the 1% and 5% levels (in model III and IV, respectively). The other regimes do not appear to affect the probability of having an Antipope. Neither the length of the Papacy nor their nationalities seem to play a role in the election of an Antipope in the whole sample. To check the robustness of this result, we estimated equation (3) for the sample of the Popes before the Reform. The argument is that the Reform sanctioned the principle of *cuius regio eius religio*, which freed outside political powers from the need of formally challenging the legitimacy of the Pope in order to oppose his policy; they simply had to opt out of Catholicism. As a matter of fact, there has never been talk of electing an Antipope after the Reform (Duffy, 2006). If this is the case, the 41 post-Reform Popes of our sample may bias the estimates. The results (Model V) show that this may be the case for the controlling variables *days* and *Roman*, which are now statistically significant, although only at the 10% level. A longer Papacy seems more likely to be opposed by the election of an Antipope, while Roman Popes seem less exposed to such a threat¹⁶. This may be because Popes tended to be Roman during the High Middle Age, when the local nobility selected the Pope. As we have seen in section 4, the Popes were then *de facto* subjected to the Empire and hardly played an international role; they did not pose a threat to outside political centers of power. Importantly, even in this more limited sample we find strong empirical support for the source of opposition hypothesis. The coefficient on *totalitarian* is positive and statistically significant, while that on *tinpot* is not significant.

¹⁶ We have used also the *Italian* dummy for **nationality**, but it never turned out significant, probably because the idea of an Italian nationality was not developed during our sample.

6. Conclusion

This paper attempts to see if the working of theocracies can be understood in the same way as other dictatorships. On the one hand, it seems apparent that a regime like contemporary Iran, which is largely controlled by the Muslim clergy, is “special” and has many unique characteristics. On the other hand, the same can be said about almost any political regime. Hannah Arendt, in her justly celebrated book *The Origins of Totalitarianism* (1950), lumped together Stalin’s Russia and Nazi Germany under the same label “totalitarianism”. Yet it is obvious that the two regimes were very different in many respects. But while it is important and vital to discover the history and peculiar characteristics of every political regime, it is also useful to have broad abstract categories. The word “democracy” is one such category and the essential characteristics of democracy can be spelled out and regimes characterized to the extent that they are “democratic” on various empirical measures. We believe the term “dictatorship” is equally useful. From Wintrobe’s (1990, 1998) model of dictatorship four special types can be derived - totalitarian, tinpot, tyranny and timocracy - that vary in the extent to which the ruler uses loyalty or repression to stay in power. Here we test the explanatory and predictive power of this theory of dictatorship by applying it to theocracy. We consider the behaviour of the Catholic theocracy in the Papal States, as this was a very long lasting theocracy, exposed to many historical shocks that reveal information about the incentives and constraints that characterize it. We use this information to test the explanatory power of the theory of dictatorship, showing that never in the history of the temporal power of the Church have the four categories of dictatorship proven inadequate. In this sense, theocracy is just like any other form of dictatorship. Furthermore, we test some of the predictions of the theory of dictatorship about the durability of, and the source of

opposition to the various regimes on data about the Papacy. The results appear to support the theory.

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Figure1. Equilibrium power and budget in dictatorship

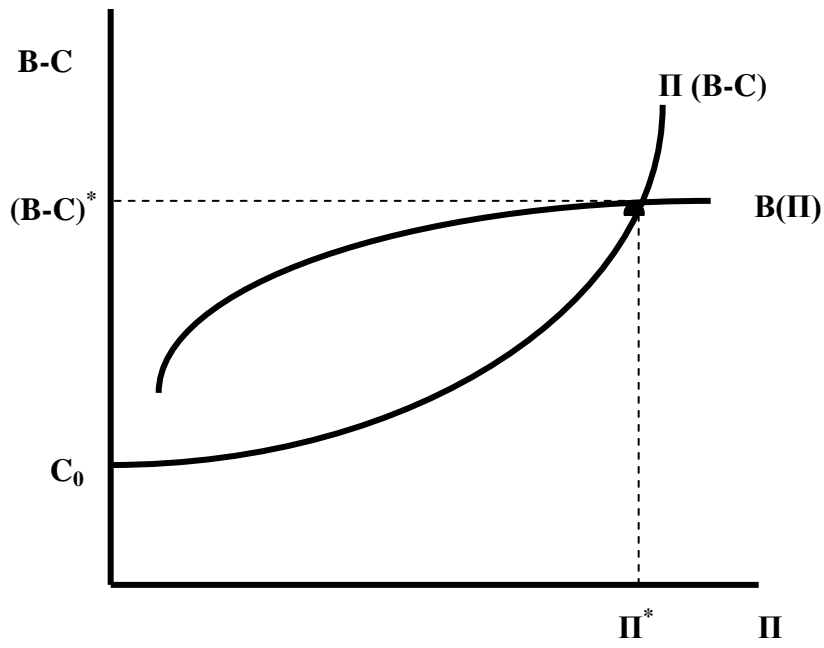
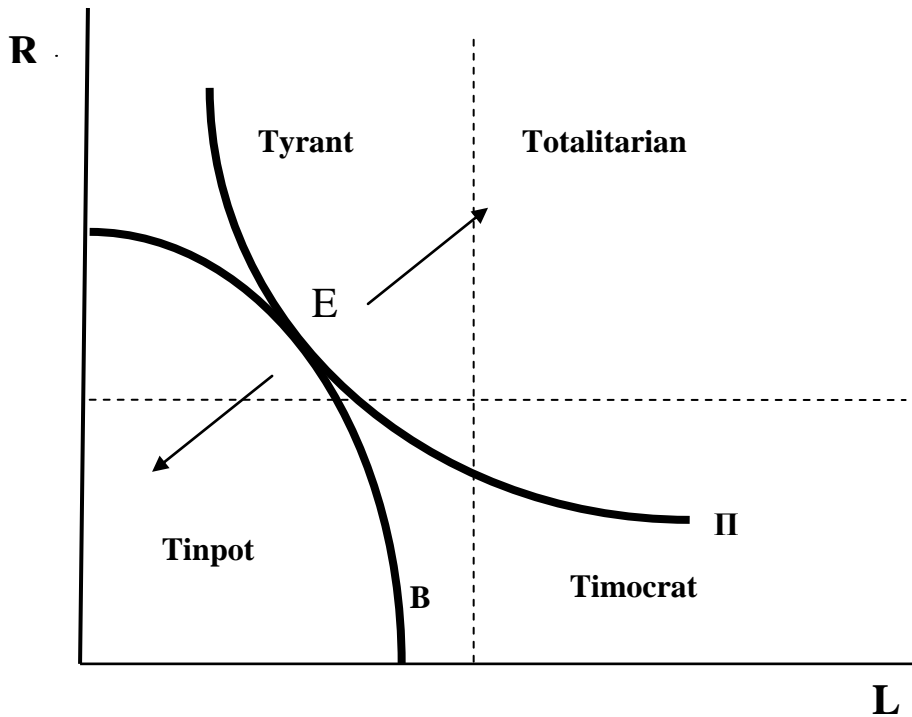
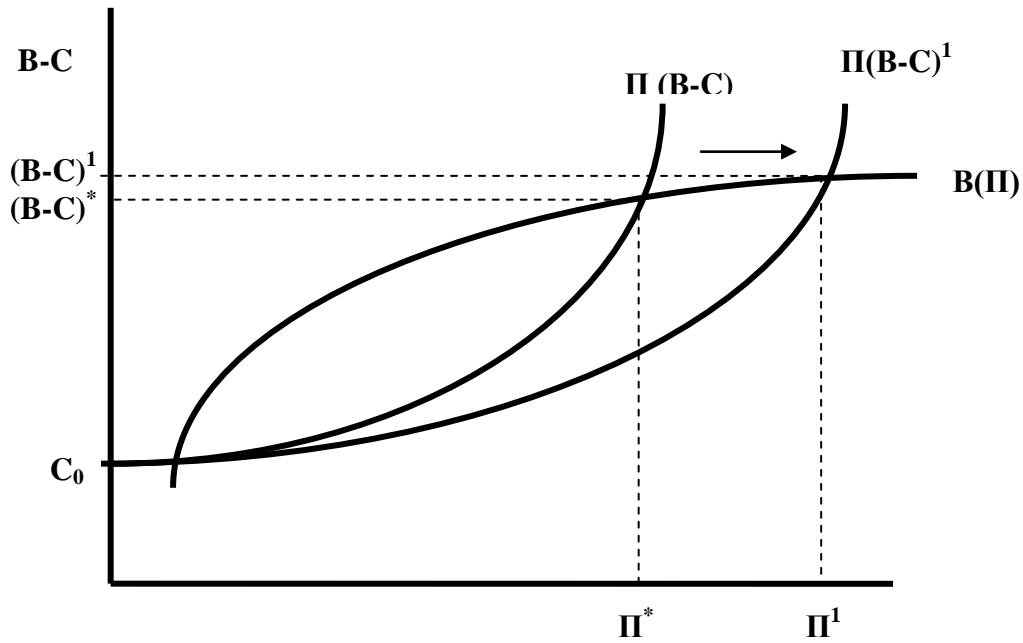


Figure 2. *Equilibrium loyalty and repression*



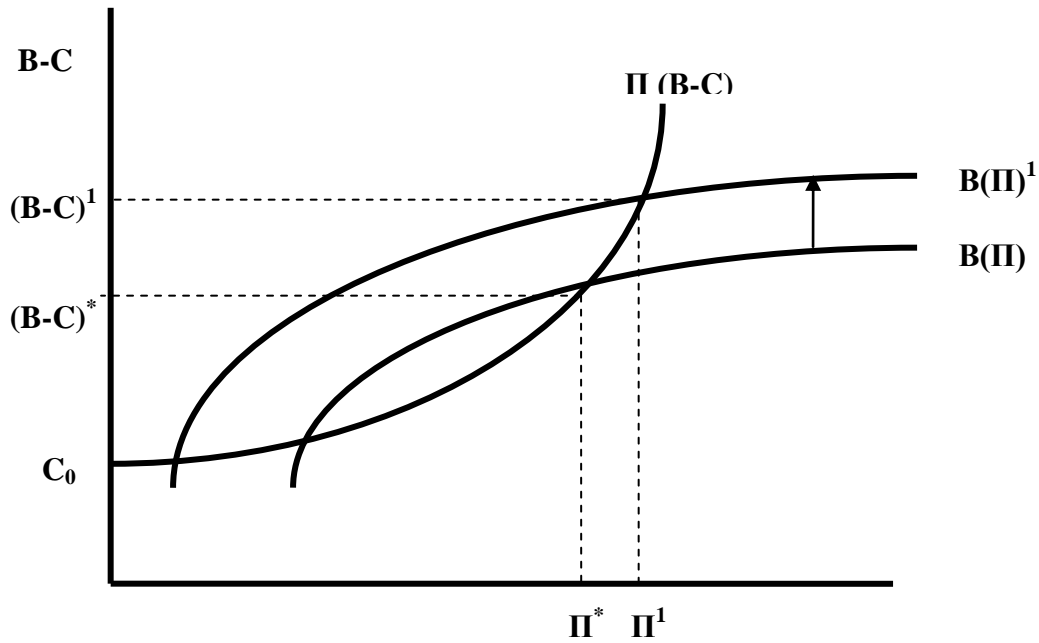
The levels of B and II are derived from Figure 1. Given the prices of loyalty and repression (in the budget constraint in this diagram) and the marginal productivities of R and L in producing power (which determines the slope of the π curve), the location E is determined. Depending on the quadrant in which E falls, the regime turns out to be either tinpot, tyrant, totalitarian, or timocrat. In this particular figure, it is a tyranny. Note that if power and budget increase, the regime would move in the direction of the totalitarian region (as shown by the upward – sloping arrow), while if they decrease, the regime would move towards the tinpot region (as shown by the downward –sloping arrow).

Figure 3. A rightward shift in the money –into power function.



A shift in the money-into- power function changes equilibrium budget and power, thus changing the type of regime (depicted in Figure 2). If the money –into power curve shifts to the right, as shown in the Figure, power and budget are larger.

Figure 4. An upward shift in the power –into money function.



An upward shift in the power –into money function increases equilibrium budget and power, thus changing the type of regime (as could be depicted in Figure 2). Equilibrium power and budget are larger.

Figure 5. Timeline of Papal regimes
1=Tinpot; 2=Tyrant; 3=Totalitarian

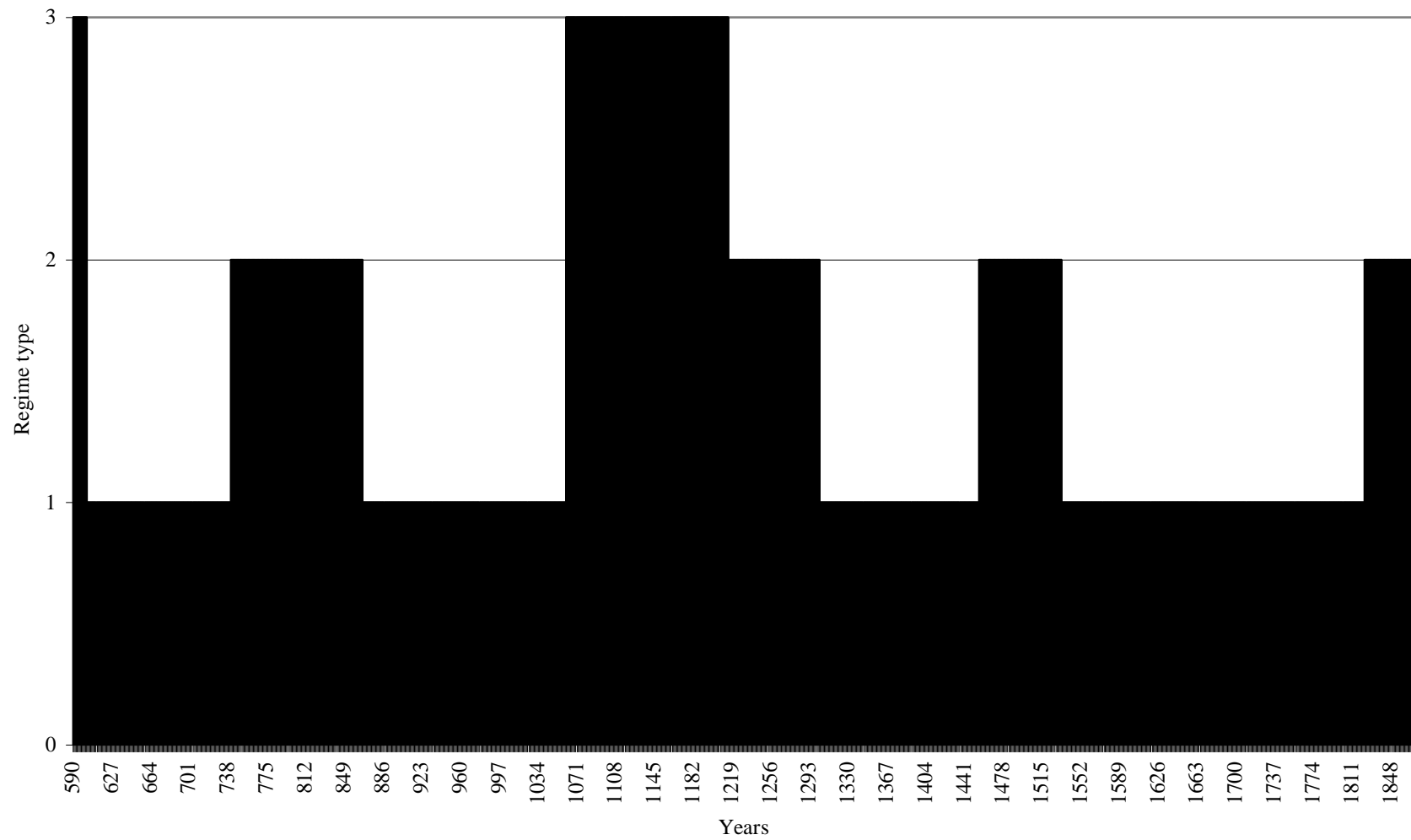


Figure 6. Residual plot of the estimates of Equation (2) – whole sample

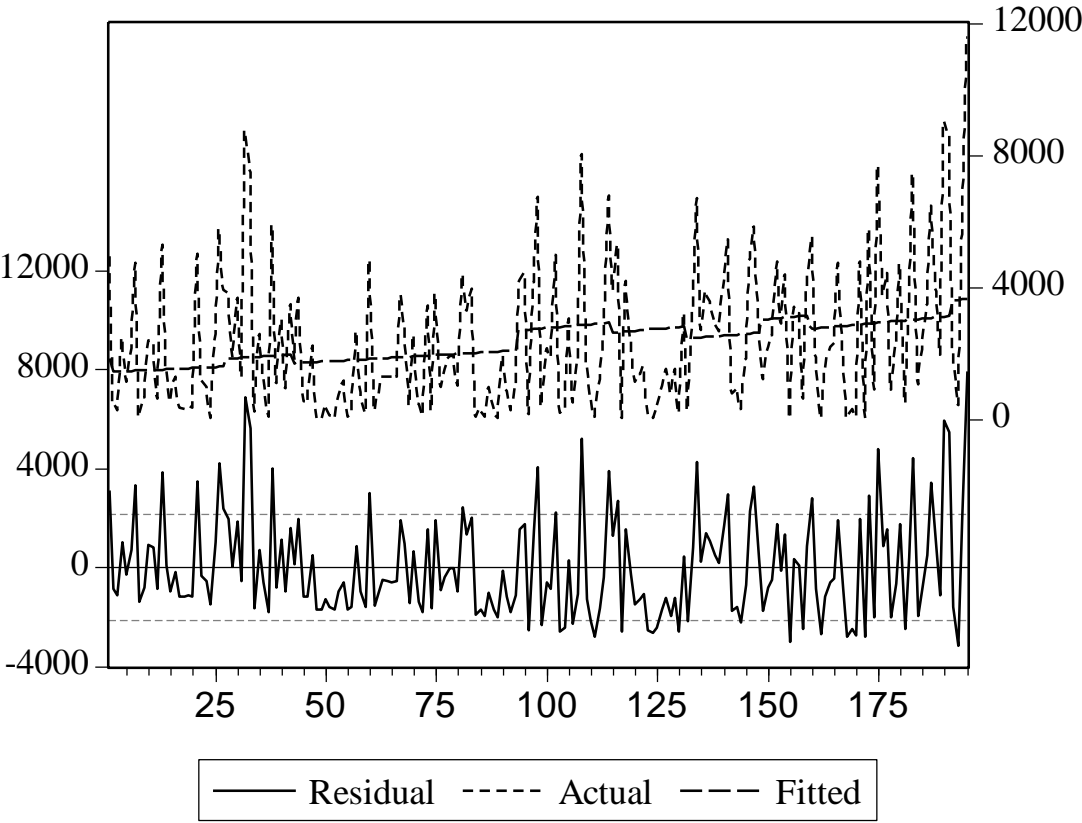


Figure 7. Residual plot of the estimates of Equation (2) – sample of Popes whose age is known

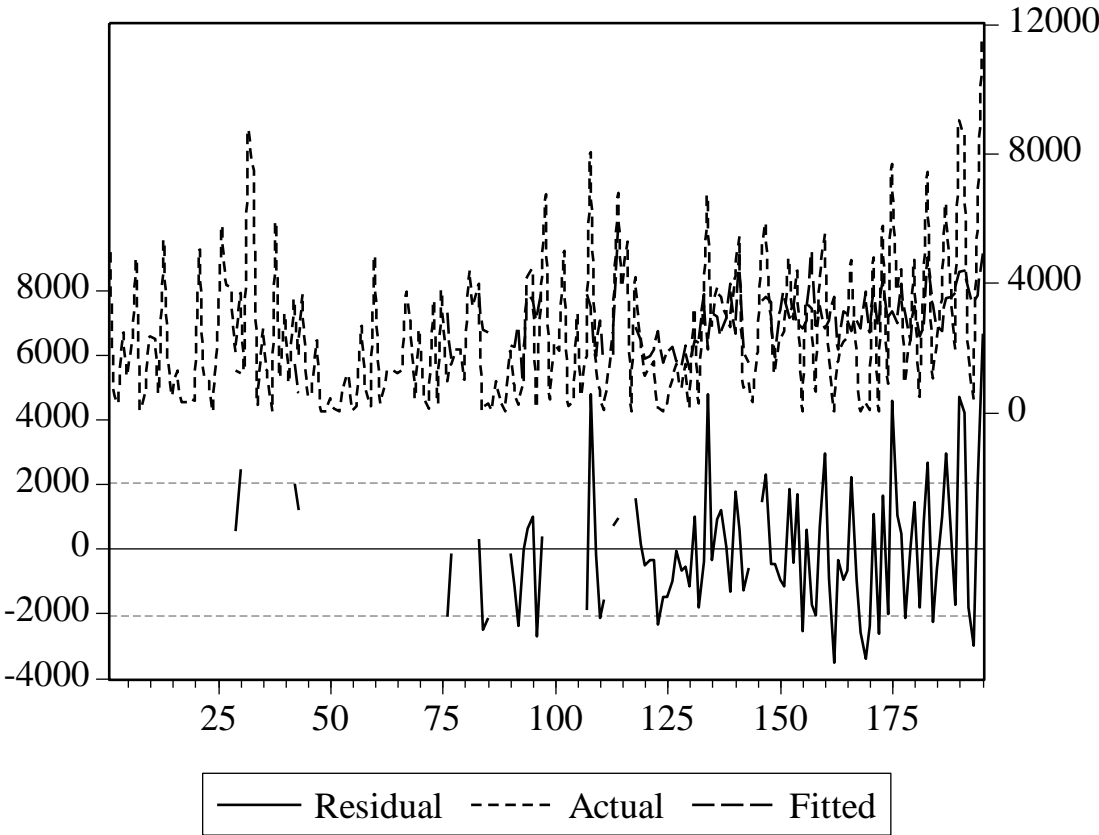


Table 1. Test of the durability hypothesis

Dependent variable: *durability_i*

Variable	Model I		Model II	
	Coefficient	z-statistics	Coefficient	z-statistics
A_0	7.39	1699.147	8.435	27.21
$Tinpot_i$	-0.139	-40.37	-0.614	-2.387
$Totalitarian_i$	0.1128	22.58		
$Tyrant_i$			-0.591	-2.527
Age_i			-0.0251	-4.396
$Elife_i$	0.004	150.61	0.01	3.26
<i>LR statistics</i>	27912.9		41764.6	
<i>Observations</i>	195		110	
<i>Akaike info criterion</i>	1881.958		1606	

Table 2. Test of the source of opposition hypothesis

Dependent variable: *Antipope_i*

Variable	Model III		Model IV		Model V	
	Coefficient	z-statistics	Coefficient	z-statistics	Coefficient	z-statistics
A_0	-1.79	-4.979	-1.314	-5.418	-1.802	-4.433
$Tinpot_i$	0.476	1.269			0.655	1.634
$Tyrant$			-0.476	-1.269		
$Totalitarian_i$	1.067	2.384	0.591	1.704	0.938	2.01.
$Days_i$	5.77^{-05}	0.983	5.77^{-05}	0.983	0.0001	1.687
$Roman_i$	-0.309	-1.028	-0.309	-1.028	-0.524	-1.667
LR statistics	8.314		8.314		11.28	
Observations	195		195		154	
Akaike info criterion	0.668		0.668		0.768	

Appendix 1. Data about the Popes

Progressive number	N.º in official chronology	Name	Year		Regime type
			Election	End	
1	65	Gregory I, Magno	590	604	Totalitarian
2	66	Sabinian	604	605	Tinpot
3	67	Boniface III	607	607	Tinpot
4	68	Boniface IV	608	615	Tinpot
5	69	Adeodatus I	615	619	Tinpot
6	70	Boniface V	619	625	Tinpot
7	71	Honorius I	625	638	Tinpot
8	72	Severinus	640	640	Tinpot
9	73	John IV	640	642	Tinpot
10	74	Theodore I	642	649	Tinpot
11	75	Martin I	649	655	Tinpot
12	76	Eugenius I	655	656	Tinpot
13	77	Vitalian	657	672	Tinpot
14	78	Adeodatus II	672	676	Tinpot
15	79	Donus I	676	678	Tinpot
16	80	Agatho	678	682	Tinpot
17	81	Leo II	682	683	Tinpot
18	82	Benedict II	684	685	Tinpot
19	83	John V	685	686	Tinpot
20	84	Conon	687	687	Tinpot
21	85	Sergius I	687	701	Tinpot
22	86	John VI	701	705	Tinpot
23	87	John VII	705	707	Tinpot
24	88	Sisinnius	708	708	Tinpot
25	89	Costantine I	708	715	Tinpot
26	90	Gregory II	715	731	Tinpot
27	91	Gregory III	731	741	Tinpot
28	92	Zacharias	741	752	Tyrant
29	93	Stephen II	752	757	Tyrant
30	94	Paul I	757	767	Tyrant
31	95	Stephen III	768	771	Tyrant
32	96	Hadrian I	771	795	Tyrant
33	97	Leo III	795	816	Tyrant
34	98	Stephen IV	816	817	Tyrant
35	99	Paschal	817	824	Tyrant
36	100	Eugenius II	824	827	Tyrant
37	101	Valentie I	827	827	Tyrant
38	102	Gregory IV	827	844	Tyrant
39	103	Sergius II	844	847	Tyrant
40	104	Leo IV	847	855	Tyrant

Progressive number	N.º in official chronology	Name	Year		Regime type
			Election	End	
41	105	Benedict III	855	858	Tyrant
42	106	Nicholas I, Magno	858	867	Tyrant
43	107	Hadrian II	867	872	Tinpot
44	108	John VIII	872	882	Tinpot
45	109	Marinus I (or Martin II)	882	884	Tinpot
46	110	Hadrian III	884	885	Tinpot
47	111	Stephen V	885	891	Tinpot
48	112	Formosus	891	896	Tinpot
49	113	Boniface VI	896	896	Tinpot
50	114	Stephen VI	896	897	Tinpot
51	115	Romanus	897	898	Tinpot
52	116	Theodore II	898	898	Tinpot
53	117	John IX	898	900	Tinpot
54	118	Benedict IV	900	903	Tinpot
55	119	Leo V	903	903	Tinpot
56	120	Cristopher	903	904	Tinpot
57	121	Sergius III	904	911	Tinpot
58	122	Anastasius III	911	913	Tinpot
59	123	Lando	913	914	Tinpot
60	124	John X	915	928	Tinpot
61	125	Leo VI	928	929	Tinpot
62	126	Stephen VII	929	931	Tinpot
63	127	John XI	931	936	Tinpot
64	128	Leo VII	936	939	Tinpot
65	129	Stephen VIII	939	942	Tinpot
66	130	Marinus II (o Martin III)	943	946	Tinpot
67	131	Agapitus II	946	956	Tinpot
68	132	John XII	956	964	Tinpot
69	133	Benedict V	964	965	Tinpot
70	134	John XIII	965	972	Tinpot
71	135	Benedict VI	972	973	Tinpot
72	136	Donus II	973	974	Tinpot
73	137	Benedict VII	975	984	Tinpot
74	138	John XIV	984	985	Tinpot
75	139	John XV o XVI	986	996	Tinpot
76	140	Gregory V	996	999	Tinpot
77	141	Sylvester II	999	1003	Tinpot
78	142	John XVII	1003	1003	Tinpot
79	143	John XVIII	1003	1009	Tinpot
80	144	Sergius IV	1009	1012	Tinpot
81	145	Benedict VIII	1012	1024	Tinpot
82	146	John XIX	1024	1032	Tinpot

Progressive number	N.º in official chronology	Name	Year		Regime type
			Election	End	
83	147	Benedict IX - 1	1032	1044	Tinpot
84		Benedict IX -2	1045	1045	Tinpot
85		Benedict IX - 3	1047	1048	Tinpot
86		Sylvester III	1045	1045	Tinpot
87	148	Gregory VI	1044	1046	Tinpot
88	149	Clement II	1046	1047	Tinpot
89	150	Damasus II	1048	1048	Tinpot
90	151	Leo IX	1049	1054	Tinpot
91	152	Victor II	1055	1057	Tinpot
92	153	Stephen IX	1057	1058	Tinpot
93	154	Nicholas II	1059	1061	Tinpot
94	155	AlexanderII	1061	1073	Totalitarian
95	156	Gregory VII	1073	1085	Totalitarian
96	157	Victor III	1086	1087	Totalitarian
97	158	Urban II	1088	1099	Totalitarian
98	159	Paschal II	1099	1118	Totalitarian
99	160	Gelasius II	1118	1119	Totalitarian
100	161	Callistus II	1119	1124	Totalitarian
101	162	Honorius II	1124	1130	Totalitarian
102	163	Innocent II	1130	1143	Totalitarian
103	164	Celestine II	1143	1144	Totalitarian
104	165	Lucius II	1144	1145	Totalitarian
105	166	Eugenius III	1145	1153	Totalitarian
106	167	Anastasius IV	1153	1154	Totalitarian
107	168	Hadrian IV	1154	1159	Totalitarian
108	169	AlexanderIII	1159	1181	Totalitarian
109	170	Lucius III	1181	1185	Totalitarian
110	171	Urban III	1185	1187	Totalitarian
111	172	Gregory VIII	1187	1187	Totalitarian
112	173	Clement III	1187	1191	Totalitarian
113	174	Celestine III	1191	1198	Totalitarian
114	175	Innocent III	1198	1216	Totalitarian
115	176	Honorius III	1216	1227	Tyrant
116	177	Gregory IX	1227	1241	Tyrant
117	178	Celestine IV	1241	1241	Tyrant
118	179	Innocent IV	1243	1254	Tyrant
119	180	AlexanderIV	1254	1261	Tyrant
120	181	Urban IV	1261	1264	Tyrant
121	182	Clement IV	1265	1269	Tyrant
122	183	Gregory X	1271	1276	Tyrant
123	184	Innocent V	1276	1276	Tyrant
124	185	Hadrian V	1276	1276	Tyrant

Progressive number	N.º in official chronology	Name	Year		Regime type
			Election	End	
125	186	John XXI	1276	1277	Tyrant
126	187	Nicholas III	1277	1280	Tyrant
127	188	Martin IV	1281	1285	Tyrant
128	189	Honorius IV	1285	1287	Tyrant
129	190	Nicholas IV	1288	1292	Tyrant
130	191	Celestine V	1294	1294	Tyrant
131	192	Boniface VIII	1294	1303	Tyrant
132	193	Benedict XI	1303	1304	Tinpot
133	194	Clement V	1305	1314	Tinpot
134	195	John XXII	1316	1334	Tinpot
135	196	Benedict XII	1334	1342	Tinpot
136	197	Clement VI	1342	1352	Tinpot
137	198	Innocent VI	1352	1362	Tinpot
138	199	Urban V	1362	1370	Tinpot
139	200	Gregory XI	1370	1378	Tinpot
140	201	Urban VI	1378	1389	Tinpot
141	202	Boniface IX	1389	1404	Tinpot
142	203	Innocent VII	1404	1406	Tinpot
143	204	Gregory XII	1406	1409	Tinpot
144	205	Alexander V	1409	1410	Tinpot
145	206	John XXIII	1410	0	Tinpot
146	207	Martin V	1417	1431	Tinpot
147	208	Eugenius IV	1431	1447	Tinpot
148	209	Nicholas V	1447	1455	Tinpot
149	210	Callistus III	1455	1458	Tyrant
150	211	Pius II	1458	1464	Tyrant
151	212	Paul II	1464	1471	Tyrant
152	213	Sixtus IV	1471	1484	Tyrant
153	214	Innocent VIII	1484	1492	Tyrant
154	215	Alexander VI	1492	1503	Tyrant
155	216	Pius III	1503	1503	Tyrant
156	217	Julius II	1503	1513	Tyrant
157	218	Leo X	1513	1521	Tyrant
158	219	Hadrian VI	1521	1523	Tyrant
159	220	Clement VII	1523	1534	Tyrant
160	221	Paul III	1534	1549	Tinpot
161	222	Julius III	1550	1555	Tinpot
162	223	Marcellus II	1555	1555	Tinpot
163	224	Paul IV	1555	1559	Tinpot
164	225	Pius IV	1559	1565	Tinpot
165	226	Pius V	1566	1572	Tinpot
166	227	Gregory XIII	1572	1585	Tinpot

Progressive number	N.º in official chronology	Name	Year		Regime type
			Election	End	
167	228	Sixtus V	1585	1590	Tinpot
168	229	Urban VII	1590	1590	Tinpot
169	230	Gregory XIV	1590	1591	Tinpot
170	231	Innocent IX	1591	1591	Tinpot
171	232	Clement VIII	1592	1605	Tinpot
172	233	Leo XI	1605	1605	Tinpot
173	234	Paul V	1605	1621	Tinpot
174	235	Gregory XV	1621	1623	Tinpot
175	236	Urban VIII	1623	1644	Tinpot
176	237	Innocent X	1644	1655	Tinpot
177	238	Alexander VII	1655	1677	Tinpot
178	239	Clement IX	1667	1669	Tinpot
179	240	Clement X	1670	1676	Tinpot
180	241	Innocent XI	1676	1689	Tinpot
181	242	Alexander VIII	1689	1691	Tinpot
182	243	Innocent XII	1691	1700	Tinpot
183	244	Clement XI	1700	1721	Tinpot
184	245	Innocent XIII	1721	1724	Tinpot
185	246	Benedict XIII	1724	1730	Tinpot
186	247	Clement XII	1730	1740	Tinpot
187	248	Benedict XIV	1740	1758	Tinpot
188	249	Clement XIII	1758	1769	Tinpot
189	250	Clement XIV	1769	1774	Tinpot
190	251	Pius VI	1775	1799	Tinpot
191	252	Pius VII	1800	1823	Tinpot
192	253	Leo XII	1823	1829	Tyrant
193	254	Pius VIII	1829	1830	Tyrant
194	255	Gregory XVI	1831	1846	Tyrant
195	256	Pius IX	1846	1878	Tyrant

Appendix 2.. *Data about the Antipopes*

N.	Name	Years	
		Elected	End
1	Theodore	687	687
2	Paschal	687	692
3	Costantine	767	768
4	Philip	768	768
5	John	844	844
6	Anastasius Bibliothecarius	855	855
7	Christopher	903	904
8	Boniface VII	974	974
9	John XVI	997	998
10	Gregory VI	1012	1012
11	Honorius II	1061	1064
12	Clement III	1080	1080
13	Clement III	1084	1110
14	Theodoric	1100	1101
15	Albert	1101	1102
16	Sylvester IV	1105	1111
17	Gregory VIII	1118	1121
18	Celestine II	1124	1124
19	Anacletus II	1130	1138
20	Victor IV (Gregorio Conti)	1138	1138
21	Victor IV (Ottaviano da Monticelli)	1159	1164
22	Paschal III	1164	1168
23	Callistus III	1168	1178
24	Innocent III	1179	1180
25	Nicholas V	1328	1130
26	Clement VII	1378	1394
27	Alexander V	1409	1410
28	John XXIII	1410	1415
29	Clement VIII	1423	1429
30	Benedict XIV	1425	1425
31	Felix V	1439	1449