Religious Origins of Democracy and Dictatorship

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Abstract: Weber designated the Protestant work ethic as the foundation of modern capitalism. Using Putnam’s definition of hierarchical religions I expand that theory: states with predominantly Roman Catholic, Eastern Orthodox and Muslim populations have had a higher inclination toward underdevelopment and dictatorship, because their respective religious collectives (monastery, tariqa) have facilitated hierarchical provision of common goods at the expense of market incentives. I define those religions as collectivist, contrary to Protestantism and Judaism, which I define as individualist. I provide a historical overview that designates the Jewish kibbutz as the collective of democracy and the Russian monastery as the collective of dictatorship. Religion as demand for public goods is higher in collectivist rather than in individualist economies. Focusing on Markov perfect equilibria, I find that modernization as credible commitment for more public goods in the future occurs, when the threat of a radical government is imminent and the leader has a high extraction rate over the economy. The emergence of radical governments is more likely in collectivist rather than in individualist economies.

Keywords: religion, democracy, dictatorship, collectivism, individualism, modernization, Russia, Israel

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I. Introduction

Weber’s Protestant Ethic suggests that the origins of capitalism are located in the rational organization of free labor and regularized investment of capital (2002). Weber observes that these conditions have been met much more in Protestant rather than Catholic regions; the Protestant work ethic leads to higher degrees of productivity and economic growth (2002). I build on this theory to explain modernization, centralization and underdevelopment as differential levels in the provision of public goods. Modernization as the “high” equilibrium in the provision of public goods is treated as a core element of democracy. Underdevelopment as the “low” equilibrium is a core element of dictatorship. Centralization is the “intermediate” equilibrium, where elites finance

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a higher provision of public goods than underdevelopment, but they are also compensated with extraction rents due to the hierarchical control that centralization implies.

In my theory, religion has a two-fold significance for economic transition and political change: it influences both the demand of public goods by citizens and administrative organization for the provision of public goods. The organization of the Eastern Orthodox and Roman Catholic monastery as well as of the Muslim tariqa as economic systems reveals the relationship between religion and hierarchical provision of public goods, as it relies on central planning in resource distribution, immediate supervision of individual performance and absence of a right to exit the religious collective. The economic organization of the Jewish kibbutz and the Protestant parish suggests that distribution of common goods can be combined with market incentives, a competitive insurance scheme and a right to exit.

Putnam argues that hierarchical religions such as Roman Catholicism, Eastern Orthodoxy and Islam undermine the development of horizontal ties between people and thus trust in society; states with Roman Catholic, Eastern Orthodox and Muslim majorities reproduce the vertical structures of their respective predominant religion in administration (1993). I define those religions as collectivist: not only they produce a more complex and Byzantine administrative structure in the provision of public goods, but they also lead to a higher reservation utility from the imposition of radical government (communism, fascism, populism) and the subsequent abolition of formal politics. This is why modernization has been more frequent in economies with predominantly individualist religions such as Protestantism and Judaism; citizens are better off with modernization than radical government, because their respective reservation utility is lower. This is the second and probably most important effect of religion on state capacity and regime formation.

I focus on the comparative analysis of the Eastern Orthodox monastery and the Jewish kibbutz as economic systems. They constitute two diametrically different economic systems in the collectivism-individualism dimension. The kibbutz leadership sets the threshold for individual contributions toward the common good, but at the same time it is held accountable for its decisions through direct democracy procedures of the kibbutz assembly. On the contrary, the abbot can never be held accountable by lower-ranked members of the collective. His administrative status depends on the approval and support of the local bishop or the patriarch.
While abstinence from property rights is a common feature for the monastery and the kibbutz, in the monastery there is no compensatory mechanism that incentivizes its better members to stay in. Candidate monks are required to transfer \textit{ex-ante} all their property to the monastery, in order to be ordained. The charismatic authority of the abbot and the vertical monitoring of effort across administrative ranks reveal the institutional roots of a state building that has the propensity to authoritarianism, corruption and asymmetries in public goods contributions. Nevertheless, arbitrariness in the management of common goods can lead faster to the dissolution of the collective \textit{per se} rather than to the replacement of its dissident members.

Individualist religions are more inclined toward democracy, because states, where those religions have been predominant, provide more public goods to their citizens and they do so at lower levels of hierarchical control. Collectivist religions have a higher propensity to dictatorship, because they impose higher levels of hierarchical control and thus states with collectivist majorities provide less public goods to their citizens. Protestant politicians are held accountable by their citizens, when they fail to treat social welfare as a complementary condition to the protection of civil rights. Jewish leaders are faced with a finite term horizon, when they are unable to enforce individual punishments for the loss of collective compliance rents. Roman Catholic elites are more likely to stay in power only if they abide by their social contract with business and labor. Tripartite economic structures are central for regime stability in Roman Catholic economies. Eastern Orthodox politicians lose office, when they use the public sector to accumulate personal rents or to favor the interests of a particular class. Muslim elites undermine their political horizon, when they violate economic principles of religious law.

I work out Markov perfect equilibria, where players make their decisions based on the value of the state variable only, i.e. without taking into account the history of previous actions. This restriction makes the analysis simpler, because it excludes more complex history-dependent punishment strategies. Moreover, Markovian solutions resonate with the restrictive focus on religion as a factor of state capacity and political change. Memorylessness is not only frequent but also consistent in long-run political processes and institutional arrangements. For completeness, I provide later on some non-Markovian solutions, where the leader provides more public goods than necessary today when the threat of a radical government is low; if he does not do so now, he
knows that the citizen may retaliate some periods later down the game when the state variable becomes high again.

In the next section I discuss the literature on religion, political regimes and public goods. Section III provides a comparison of the Jewish kibbutz and the Eastern Orthodox monastery as economic systems. Section IV introduces and works out the radical government and modernization games. There I state and prove the existence of Markovian and non-Markovian solutions to my model. Section V concludes.

II. Religion, Political Regimes and Public Goods

Religion has provided a new intellectual forum for theories of collective action, state formation and public goods provision (Iannaccone, 1998). The theory of religion as a club good assumes positive returns to “participatory crowding”; stringent norms, enforced through stigma and sacrifice, increase participation rates and the utility of participants themselves (Iannaccone, 1992). Suicide attacks by radical religious rebels groups, modeled as clubs, are effective, when these groups are efficient providers of local public goods and demand such a high level of sacrifice ex-ante that prevents potential defectors from joining the club (Berman and Laitin, 2008). The Weberian thesis on Protestantism and economic growth is confirmed with Prussian data from the late 19th century: the channel mapping the positive effects of Protestantism on economic growth is human capital and more specifically literacy (Becker and Woessmann, 2009).

Evidence from Indonesian households suggests that religious intensity grows as a response to financial distress; religious institutions provide an ex-post social insurance mechanism that fills the gap of credit availability (Chen, 2010). Households harder hit by the financial crisis are more likely to increase their religious intensity (Koran study and Islamic schooling) compared to those that were hit less; powerful social sanctions prevent households benefiting from consumption smoothing to participate less (Chen 2010). The distinction between hierarchical and horizontal religions explains why countries with predominantly Catholic, Orthodox or Muslim populations have worse judiciaries, more corrupt bureaucracies, higher tax evasion and a more defunct civil society (LaPorta, Lopez-de-Silanes, Shleifer and Vishny, 1997). Empirical studies and historical research have shown that there is no robustly negative effect of Islam on economic growth
(Noland, 2005; Platteau, 2008). Nevertheless, there is a path-dependent institutional trap in the Muslim world; the sticky interpretation of the classical Islamic system has been impeding reforms of key social institutions such as family or inheritance law or innovation and political representation (Platteau, 2008). Similarly, while religion is found to have a positive effect on economic growth, Christianity in all its different branches appears to be more positively linked to economic growth than Islam (Guiso, Sapienza and Zingales, 2003).

The transition from the comparative study of religious collectives to the comparative study of states occurs through the channel of social norms, which create shared understandings about resource distribution, including the provision of public goods (Ostrom, 2000). Distributive norms produced at the level of the religious collective are imposed on bureaucratic institutions and define the intensity of citizen demand for public goods. Their transformation into institutional arrangements and cultural preferences takes place in the form of long-run learning processes and strategic interaction (cooperative and non-cooperative) between religious institutions, governments and people.

The framework provided in the *Economic Origins of Dictatorship and Democracy* can serve as an analytical foundation for deciphering the effects of religion on economic transition and political change (2006). Acemoglu and Robinson argue that elites, in order to prevent revolution, make one of the following three choices: 1. Repression, 2. Democratization and 3. Compromised redistribution; regime durability is defined as an efficient social contract between the rich and the poor. The status quo is preserved as long as elites are taxing themselves sufficiently enough to satisfy the reservation utility of the poor. The Latin American model of patronage is prevalent here. Moreover, democratic consolidation occurs when distributive policies are effective and there is no religious or ethnic polarization in society (Acemoglu and Robinson, 2007).

In the same line, Lipset compares the United States with Canada to argue that the size of government is bigger in Roman Catholic Canada than in the Protestant United States (1993). Eckstein argues that the long-run effects of revolutionary transformation are more inclined to lead to political and economic outcomes similar to the pre-revolutionary status quo due to cultural reasons (1992). Desai, Olofsgard and Yousef suggest that an autocrat cares about maintaining popular support for his policies and therefore offers the least costly combination of welfare and political benefits to citizens; real political liberalization is always more costly (2009). They identify
the existence of an authoritarian bargain between the citizens and the autocrat; however, they offer no explanation – cultural, social or political - why legitimacy is decisive for authoritarian survival (2009).

Collectivist religions impose an extractive Byzantine bureaucracy that provides less public goods and a state-dependent electorate that demands more public goods. Individualist religions induce lower levels of hierarchical control and thus more public goods by the bureaucracy; at the same time, there is a high degree of complementarity between market incentives and resource dependence from the state. This explains why limited state capacity and dictatorship have been observed more consistently in Eastern Orthodox, Roman Catholic and Muslim economies and why regions with Protestant or Jewish majorities tend to be always more developed. The “high” equilibrium of modernization refers to democracy, the “low” equilibrium of underdevelopment to dictatorship, and the “intermediate” equilibrium of centralization to semi-authoritarianism, most commonly observed in post-socialist countries and political regimes in the Middle East and Africa that combine elements of democracy and dictatorship.

Modeling religious collectives as economic systems with differential levels of vertical resource distribution is essential for introducing a new agenda in economics of religion. Hierarchy, discipline, monitoring and solidarity at the level of the collective define the reservation utilities of citizens and the enforcement capacity of the state. The existence of collectivist and individualist religions can consistently explain correspondences between religious traditions and political regimes. This is what shapes my definition of public goods authoritarianism: collectivist rather than individualist economies are more likely to be confronted with an imminent threat for radical government. A radical government is more attractive for citizens in a collectivist economy. Thus, a leader of a collectivist economy opts for underdevelopment and thus dictatorship, when there is high level of hierarchical control in the administration and the threat of radical government is imminent. When the hierarchical control is low and the threat for his overthrow is still there, then he chooses modernization and thus democracy. Collectivist economies are therefore more likely to be authoritarian or semi-authoritarian, because collectivist religions produce intermediate to high levels of hierarchical control for elites and against citizens. I now focus on the comparison of the Jewish kibbutz and the Eastern Orthodox monastery as economic systems and explain why
Judaism and Eastern Orthodoxy can propose models of economic organization that can be analyzed as the institutional prototypes of democracy and dictatorship.

III. Institutional Prototypes of Democracy and Dictatorship

i. Market Incentives and Community Formation in the Jewish Kibbutz

The influence of religious norms on political regimes can be traced in multiple ways: through the interaction between religious and secular legal orders, the penetration of bureaucratic institutions by religious values and practices, and the treatment of religious collectives as prototype economic systems that shape economic organization and policy. In this part, I focus on the latter path. First, I define the religious collective as an economic system in Eastern Orthodoxy and Judaism. Second, I identify the linkages between religious collectivism and political economy in Russia and Israel, states with an Eastern Orthodox and a Jewish majority respectively.

The image of the Halutz (pioneer) necessitated indifference to wages, material benefits, socio-economic status and political power (Eisenstadt, 1967: 117). Manual work and self-reliance were the other two elements that shaped communal life among the Jews of Palestine and up to the emergence of the Israeli state (Eisenstadt, 1967: 117). The introduction of these three principles into Israeli society occurred in multifaceted ways. First, it became the basis for the creation and dissemination of kibbutzim and moshavim (Eisenstadt, 1967: 119-121). Second, the structure of labor institutions such as the General Federation of Labor (Histadrut) was influenced by pioneer principles (Eisenstadt, 1967: 121). In moshavim and particularly kibbutzim, individual survival has been a first-order condition with respect to collective welfare.

Helman in his analysis of the kibbutz as a model of socialist economic organization argues that there are two significant elements that differentiate the kibbutz from a centrally planned economic system: 1. The voluntary character of its membership and 2. The democratic nature of collective procedures, which are regulated by a general assembly formed by all adult kibbutz members (1992: 169-170). Exit from the kibbutz, particularly by younger people, is treated as a proof of the flawed system of incentives that defines its function (Helman, 1992: 177-178). Hierarchical monitoring and control, complementarity of individual and collective interests and information-sharing can model kibbutz productivity as a moral hazard problem and thus
eliminate some of its central planning elements that force some of its most competent members to exit (Helman, 1992: 180).

In his model of the kibbutz, Abramitzky identifies the tradeoff between redistribution and voluntary participation; more productive individuals are less incentivized to stay than less productive ones (2008). And higher equality tends to provide more insurance to all kibbutz members at the expense of the more productive ones (2008). Nevertheless, wealthier kibbutzim offer higher incentives to their more productive members to stay rather than exit; as Abramitzky makes clear, the wealthier the kibbutz, the more equal its members and the more likely it is to retain its hard-working individuals (2008: 1126-1127). Thus, kibbutzim can offer optimal insurance and reduce the opportunity costs for their members, when participation to their communal structures comes along with the option of exit (2008: 1149-1152). While the allocation of resources is centralized, the exit option can make the kibbutz the best of both worlds, with both very high levels of equality and a competitive incentives scheme for its more productive individuals.

The absence of private property in the kibbutz is compensated with the right to exit. Moreover, there is no central authority that sets a common baseline for resource distribution and monitoring across kibbutzim, despite the efforts in Israel to create one at the national level (Weisman, 1996). Opportunity cost for any kibbutz member is treated as the kibbutz membership cost, which should be less than the social benefits incurred at the individual level, so that the kibbutz continues to exist for more than one period. Furthermore, the incentive to work is inherently linked with the valuation of work as a self-fulfilling process (Putterman, 1983: 157-188). This work ethic is what may motivate individuals to optimize their utility in terms of community contributions (Putterman, 1983: 173-177). Normative commitments are seen by Putterman as explanatory factors of kibbutz membership at the absence of property rights and material rewards; ideology rather than altruism accounts for organizational cohesion and mutual assistance (Putterman, 1983).

Transparent voting procedures and the requirement of two-thirds majority for the admission of new members ensures the coexistence of democracy with collectivism (Schwartz, 1957: 137-139). Individual responsibility is not constrained by collective property and freedom of expression is not undermined by egalitarian distribution (Schwartz, 147). This is why the Jewish
kibbutz can be defined as the religious collective of democracy and an institutional prototype for mutually reinforcing community formation and market incentives.

Ruffle and Sosis provide interesting experimental evidence on cooperative behavior and in-group-out-group bias between kibbutz members and city residents (2006). They argue that kibbutz members are willing to sacrifice more and thus are more cooperative when they are paired with other kibbutz members, where the opposite holds, when they are paired with city residents (2006: 154). They also find that newer kibbutz members are more cooperative than older kibbutz members and that kibbutz members become much less cooperative per se, when they are paired with city residents (2006: 157-158). Therefore, kibbutzim rely on the cooperative behavior of their newer members and can afford that way the more individualist approach of their more senior members. Similarly, egalitarian distribution in the kibbutzim has not been stable or always successful; evidence from the 1980s shows that, while the equality in terms of living standards remained relatively low, wealth and income inequality became significantly high (Amiel et al., 1996: 80).

At this point, it is important to stress the distinction between secular and Orthodox Judaism and their relationship to economic success. Fishman observes that the kibbutzim integrated to the Religious Kibbutz Federation – only a 6 percent of the total kibbutz population – performed much better than those belonged to secular federations.1 Continuing this line of thought, Fishman and Goldschmidt argue that Max Weber and Werner Sombart were correct when they identified Judaism’s interaction with economic success in capitalism (1990: 506-507). Their metrics of comparative economic performance are drawn from financial data including short- and long-run output, returns to capital and labor (1990: 508). They conclude that the Judaic principles of self-control and rational spending combined with solidarity and individual responsibility can account for the economic success of Orthodox kibbutzim (1990: 511).

In the Jewish kibbutz, the identification of an equilibrium point between communal and individual interests puts an upper limit to individual initiative and optimization of personal rents. Similarly, voluntary participation puts a lower limit to managerial control and corrects for hierarchical inefficiencies. The kibbutz as a political and economic system suggests a prototype

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institution for the State of Israel, whose democratic polity is explicitly defined by Judaic norms and rabbinical traditions. Ben-Ner observes that consumption in the kibbutz can serve both collective and private ends, and each kibbutz member faces a two-level optimization problem: at communal and individual levels (1987). Kibbutzim leaders optimize overall economic performance by treating members’ individual rents as a system of external constraints.

Israel as political and economic system reflects the unstable set of points between collectivism and individualism, community formation and market incentives, welfare state and liberal market economy with a clear commitment toward political representation and protection of individual rights. Hence, the kibbutzim suggest a set of institutional and economic arrangements, which form the basis on which Israel is modeled as a political and economic system.

ii. Authoritarian Welfare in the Eastern Orthodox Monastery

The Jewish kibbutz is designated as the collective of democracy, because it offers competitive insurance schemes to its members, in order to facilitate their participation to collective work and the distribution of common resources in the absence of individual property rights. The Russian-Orthodox monastery is designated as the collective of dictatorship, because it offers no real exit option and provides to the abbot the absolute authority in the distribution of common resources and the enforcement of contribution standards.

Byzantine monasticism has been instrumental in consolidating the victory of iconophiles against iconoclasts and provides the normative foundations of Orthodox monasticism within and beyond the boundaries of the Byzantine Empire: personal poverty, obedience to the abbot, constant work and liturgical life (Meyendorff, 1974: 46-48). Moreover, the dogmatic divide between East and West about the nature of the Trinity revealed the theological commitment of the Eastern Church to the personal interpretation as a society of persons rather than as single philosophical essence (Meyendorff, 1974: 60-61). The position of Theodore the Studite toward the institutionalization of divorce and the mystery of Eucharist indicates also two more key principles of Orthodox communal life: 1. Acceptance of sin as human weakness and necessary precondition for salvation, and 2. The treatment of Eucharist as the core of Orthodox communitarian life and linkage between monks and laymen, the sacred and the profane (Meyendorff, 1974: 197-199 and 203-204).
The development of monasticism in the aftermath of iconoclasm consolidated the incorporation of ecclesiastical principles into state structures (Schemann, 1963). Monasteries became epicenters of intellectual production and political influence, the number of monks grew exponentially and monastic figures became central in Byzantine politics, as this is indicated by the case of Studion and its founder Theodore in Constantinople (Schemann, 1963). Rather than treating religion as a critique to the secular state, Byzantine monks became the consciousness of the empire itself. The inseparability between the basic functions of the Church and the legitimacy of the State does not qualify middle Byzantium either as theocracy or caesaropapist state; the latter has been extensively argued by Max Weber and his disciples. On the contrary, the spiritual influence of monastic theology on domestic politics and the ability of the Church to contest the legitimacy of executive authority in a non-democratic political environment show that Byzantine rulers had to take into account a double constraint imposed on them by monks and patriarchs. This constraint was both ethical and economic. The Byzantine emperor was accountable for the welfare of its people to the Orthodox Church, which set the standard of ethical administrative behavior. Thus, the Orthodox Church becomes the intermediary institution between the feudal elites and the imperial bureaucracy on the one hand, and the middle and lower classes on the other. It delegates the interests of the people to the elites, while using state subsidies as the source of its own financial survival.

In Byzantium the authority of the Emperor was conditioned by the approval of the Orthodox Church, and the core of the Orthodox Church itself was formed by a series of influential monastic institutions in Asia Minor, Palestine, Constantinople and Mount Athos. The relational linkages of monastic communities to landed elites – many highly ranked monks were born into feudal families – and their institutional-financial dependence on the government put the Byzantine Orthodox monastery amidst a troubled triangle of conflicting interests: the Emperor, the landed aristocracy and the people.

The influence of monastic hierarchies on state bureaucracies becomes evident when one looks more closely at the interconnections between secular and canon law. The bargaining between the emperor and the church involved an exchange in which the church intended to maximize its property privileges and the emperor his divine-based legitimacy. The emperor had the monopoly of economic regulation and the church the monopoly of spiritual legitimacy. The
distinction between secular and spiritual regulation, however, was never clear-cut and often ended up in the cooptation of the church by the state.

The core of Eastern Orthodox collective as it developed in late 11th – early 12th century required the spiritual development of its members within a community while allowing for the emergence of charismatic individuals that would become role models for laity (Morris, 1995: 63). Charismatic leadership and hierarchy, maximization of spiritual achievement and minimization of material dependence constitute some of the normative rules that define the life and structure of Byzantine clergy. At the same time, if abstinence from individual property – which was the justification basis for the prohibition of marriage and lay family for Eastern Orthodox bishops – and negative knowledge of God are conditions for human salvation, then the presence of a strong community is a sine qua non component for the facilitation of this salvation process (Kreismueller, 2006: 122-123).

The term epistemonarches is instrumental in understanding the elements of this interaction (Macrides, 1999: 63-65). While until the 12th century this term was used to describe the monk who guaranteed by duty disciplinary enforcement among the members of the brotherhood, since the middle of the 12th century it had been used in a lay context (Macrides, 1999: 63-65). Anna Komnene uses it in her masterpiece Alexiad, in order to explicitly refer to the monitoring and disciplinary capacity of her father Alexios over the patriarch of Constantinople and his hierarchical subordinates; as epistemonarches the Byzantine emperor could intervene in the hierarchy of the church both in terms of clergy appointments and legal interpretation questions (Macrides, 1999: 63-65). The treatment of ecclesiastical law as equivalent to civil imperial law and thus equally binding is only one aspect of the influence of the Orthodox Church on the Byzantine state. The resolve of the state to substitute the church in many of its functions required the creation of court offices that reflected older ecclesiastical ranks of administrative appointments or actually used clerics to perform duties that served the administrative operations of the state; for example, dikaiophylax (the law protector) and cartophylax (the records protector) are offices carried by clergymen who were accountable to the emperor, as the cases of John Zonaras and Theodore Balsamon indicate (Macrides, 1999: 71-81).

Similar patterns in the entanglement of religious and state institutions have been observed also in Kievan Rus and Muscovy. The emergence of the Trinity-Sergius monastery in the outskirts
of Moscow during the second half of 14th century and its transformation to the leading spiritual center of Russian Orthodoxy attracted – as expected – the interest of the Kremlin court and local landed elites. Sergei of Radonezh, founder of the monastery and saint, embodies many of the diachronic elements of Russian identity: abstention from wealth, prayer as a form of service to nation’s military victories (battle of Kulikovo against Tatar Mamai), and holiness of community as reflection of the Divine Kingdom onto Russian society (Miller, 2010). The pilgrimages of Grand Prince Vasilii and Ivan the Terrible to the Trinity monastery confirm its political significance in legitimizing executive authority and explain the numerous immunity charters it enjoyed in Muscovy; despite the financial centralization undertaken by Ivan the Terrible, the Trinity’s property and customs privileges were secured by 149 immunities charters between 1533 and 1605 (Miller, 2010: 76-90). Ivan’s revealed preference for the non-possessor Artemii over Serapion Kurtsev for the position of Trinity abbot and the preservation - if not extension - of the monastery’s privileges during the Stoglav reforms make clear that the bargain between the Church and the State has been decentralized as well as hierarchical (Miller, 2010: 89-91).

The rise of the Trinity was conditioned by the emergence of an internal administrative hierarchy that mapped the social origins of monks, since 38 percent by the middle of the 16th century was born into a landowning family (Miller, 2010: 145-153). The hierarchy of the monastery was set up as follows: 1. Abbot, 2. Cellarer, 3. Treasurer, and 4. Bailiffs and fiscal officers (Miller, 2010: 145-153). The Trinity monastery can therefore suggest the prototype of an economic system where the abbot has the absolute managerial authority over monastic property, while he himself and his hierarchical inferiors are stripped of their formal property rights. Immediate supervision between hierarchical ranks, managerial control, familial and economic ties with nobility and landed elites, bargaining on privileges with the Moscow executive and provision of minimum subsistence to the brotherhood members form the set of definitive economic principles of the Eastern Orthodox collective.

These two pillars of Hesychast theology shaped the course of Russian orthodoxy in the early modern stages of its development. While Nil Sorsky treated monastic property and the communal provision of public goods that is financed by it as contradictory to the wisdom of early Church fathers, Joseph Volotsky understood the monastic community as a worldly institution that could perform state or quasi-state functions (Rock, 2006: 270-271). As it has been the case in
Byzantium with iconoclasm, the presence of dogmatic contenders in the body of the Russian Church from 15th to 17th centuries made senior clergy more assertive and political in its relationship vis-à-vis the state. Under the Romanov dynasty and the growing dissemination of Protestant influences through Prussia and Holland, Russian Orthodox monasticism was seen as source of immorality and potential insubordination (Dixon, 2006: 339-340). The transformation of the Church into an administrative agency subject to the authority of the Tsar during the Petrine reforms of 1721 and the major secularization initiatives by Catherine the Great in the second part of the 18th century would eliminate the influence of the Orthodox Church as an autonomous actor in Russian politics.

The duality of secular and religious power in Russian political culture is evident in the Golden Hall of the Moscow Kremlin; in his visual analysis of this space Rowland, one of the most prominent historians of Muscovite Russia, argues that it reflects the inconsistencies of the sacred-profane divide in Muscovite culture (Rowland, 2003: 33). He contends that Orthodox iconography provided a communication basis for the politics of the Court and the State; the concept of Holy Wisdom had direct reference to the authority of the autocrat, while the depiction of the Mother of God (Theotokos) to the sacred mission of the State in world affairs (Rowland, 2003: 55-57). Eastern Orthodoxy can be defined as a system of beliefs that transcend the functions of those religious institutions that created them in the first place. Orthodox monastic values in Byzantium and medieval Russia developed at the expense of executive authority as a result of an alliance between the Church and the aristocracy or landed elites. The subsequent competition between church and state either led to the formal victory of the Church and the emergence of a religiously defined bureaucratic imperialism (post-iconoclasm Byzantium) or an unstable equilibrium where the autocrat and the church were interdependent: the church depended on the continuity of economic privileges granted by the autocrat and the autocrat in return needed the support of the church as a legitimacy mechanism both in the eyes of the landed elites and aristocracy as well as the people.

The Protestantization of the Russian public space would progressively become the main challenge faced by the Russian rulers en route to their integration to the concert of Western powers. The Russian Orthodox world would perpetuate its existence in the villages and towns of the Russian Empire as well as at the lower ranks of the Russian clergy. The transition from Muscovy to Russian Empire deepened the divide between the higher and the lower strata of the
Russian society and transformed Orthodoxy into a social and political identity with strong class elements. This distinction between Protestantized economic and military elites that were nominally Orthodox and the lower middle class and the peasants that represented the core of Eastern Orthodox values would culminate in the victory of the latter in the Russian Revolution and the consolidation of the Soviet state.

IV. The Model

The symmetric analogy, according to Greif (1994), between individualist economic systems and developed economies on the one hand, and collectivist economic systems and developing economies on the other, indicates that cultural values matter for economic development, state organization and capacity; not only because they are reflected in contract enforcement and market development, but also because they impose different administrative institutions and social norms about the provision of collective goods. This is why religion more than any other aspect of culture is essential in analyzing state capacity and the emergence of political regimes therefrom. The transition from resource distribution at the level of the religious collective to the provision of public goods by governments occurs in the form of long-run learning, path-dependent institutional environments and shared beliefs about state-society relations.

I setup an infinitely repeated game with two players: a leader S and a citizen P. My focus is on Markov strategies, which depend only on payoff-relevant behavior, and therefore a partition of the total history of play (Maskin and Tirole, 2001). I concentrate on collectivist economic systems, i.e. economies with Roman Catholic, Eastern Orthodox and Islamic majorities, as these have been historically more inclined toward revolutionary activity and abrupt political change. Later on, I discuss the existence of subgame perfect equilibria, i.e. without excluding non-Markovian solutions, and their possible value added to my theory of religion and political regimes.

i. The Radical Government Game

Religion is defined as demand for public goods and is denoted with $\alpha_i$. Collectivist religions induce a high demand of public goods, whereas individualist religions induce a low demand of public goods. The leader cares about maximizing his income, while staying in office.
His static optimization problem has the following form: \( \max_{w} w^S - \tau^i \omega \) s.t. \( \tau^i \geq 0 \), where \( w^S \) denotes his income from staying in office such that \( w^S = e^\tau w \). In an infinitely repeated game, his net present value payoff is \( U^S = \sum_{t=0}^{\infty} \delta^t \left[ w^S - \tau^i \omega \right] \). Similarly, the citizen’s net present value payoff is \( U^P = \sum_{t=0}^{\infty} \delta^t \left[ \omega + \tau^i \omega \right] \) such that \( \omega = \frac{w^S}{\pi} \), \( t \) indexes time, and \( j \) indexes the provision level of the public good (high or low). Hierarchical control is exogenous and denoted with \( \pi \), where \( \pi \in (0,1) \). Moreover, I assume that \( w^S - \tau^i \omega \geq 0 \Rightarrow w^S \geq \tau^i \omega \Rightarrow w^S \geq \tau^i \frac{w^S}{\pi} \Rightarrow e^\tau w \geq \tau^i \frac{e^\tau w}{\pi} \Rightarrow \pi \geq \tau^i \). This implies that hierarchical control should be higher or equal to the provision level of the public good so that the static payoff of the leader is always at least zero. The public good \( \omega \) is decreasing in the degree of hierarchical control for its provision.

The radical government game is therefore defined in the following form:

1. Players: a leader \( S \) and a citizen \( P \) such that \( N = \{S, P\} \).
2. States: \( \alpha^i \in \{\alpha_L^i = \varepsilon, \alpha_H^i = \alpha - \varepsilon\} \) for an individualist economy and \( \alpha^c \in \{\alpha_L^c = 1 - \varepsilon, \alpha_H^c = \alpha + \varepsilon\} \) for a collectivist economy, where \( I \) denotes an individualist economy and \( C \) a collectivist economy. \( H \) denotes the high state and \( L \) denotes the low state such that \( 1 - \frac{\alpha}{2} < \varepsilon < \alpha < 1 \Rightarrow \alpha_H^c > \alpha_H^i \) and \( \alpha_L^c > \alpha_L^i \).
3. Payoffs: \( u^P = w^P + \tau^i \omega \) for the citizen and \( u^S = w^S - \tau^i \omega \) for the leader.
4. Strategies: \( \Theta^S = \{\tau^H, \tau^L\} \) denotes the strategy set of the leader, where \( H \) stands for a high level of public goods provision and \( L \) stands for a low level of public goods provision such that \( \tau^L < \tau^H \). The probability of citizen protest in the high state is denoted by
\[ \eta \in \{0,1\} \text{ s.t. } \eta=\begin{cases} 0 & \text{if } V^p(A,\alpha^C_{\alpha_H}+\tau^H) \geq V^p(R,\alpha^C_{\alpha_H}), \\ 1 & \text{if } V^p(A,\alpha^C_{\alpha_H}+\tau^H) < V^p(R,\alpha^C_{\alpha_H}) \end{cases}, \]

where A denotes authority and R denotes radical government.

5. Constant probabilities of switching between states H and L such that \( P = \{k,1-k\} \).

6. Discount rate \( \delta \) s.t. \( \delta \in (0,1) \).

Because religion is fixed, there is no likelihood that a collectivist majority will turn to an individualist one or vice-versa. I concentrate in collectivist economies in the high state, because they have been historically more prone to the emergence of radical government, which in my model is equivalent to dictatorship from below. The high state implies that the citizen is ready to protest against the leader and immediately impose a radical government. \( V^p(A,\alpha^C_{\alpha_H}+\tau^H) \) is the recursive Bellman payoff for the citizen when the leader’s authority is preserved and \( V^p(R,\alpha^C_{\alpha_H}) \) his recursive Bellman payoff when a radical government is imposed. If the citizen protests, the leader is toppled and the citizen provides the public good to himself (radical government). In the high collectivist payoff-dependent state the recursive payoffs of regime stability have the following form:

\[
\begin{align*}
V^p(A,\alpha^C_{\alpha_H}+\tau^H) &= w^p + \tau^H \omega + \delta \left[ kV^p(A,\alpha^C_{\alpha_H}+\tau^H) + (1-k)V^p(A,\alpha^C_{\alpha_L}) \right] \\
V^s(A,\alpha^C_{\alpha_H}+\tau^H) &= w^s - \tau^H \omega + \delta \left[ kV^s(A,\alpha^C_{\alpha_H}+\tau^H) + (1-k)V^s(A,\alpha^C_{\alpha_L}) \right]
\end{align*}
\]

where \( k \) is the probability of high state H. The leader S sets \( \tau^j = \tau^H \), if \( \alpha^j = \alpha^C_{\alpha_H} \) and \( \tau^j = \tau^L \), if \( \alpha^j = \alpha^C_{\alpha_L} \). The citizen is more likely to impose a radical government, when the demand for public goods rises and it is therefore harder for the leader to constrain the citizen’s revolutionary activity. If radical government is imposed, then the payoffs of the leader and the citizens have the following form:

\[
\begin{align*}
V^p(R,\alpha^C_{\alpha_H} = \alpha + \varepsilon) &= \frac{\alpha + \varepsilon}{1-\delta} \\
V^s(R,\alpha^C_{\alpha_H} = \alpha + \varepsilon) &= 0
\end{align*}
\]

The timing of the collectivist economy game has therefore the following structure:

1. \( \alpha^C_{\alpha_t} \in \{\alpha^C_{\alpha_L}, \alpha^C_{\alpha_H}\} \) is revealed.
2. The leader sets $\tau^j \in \{\tau^L, \tau^H\}$.

3. The citizen decides whether to protest or not: $\eta \in \{0,1\}$.
   
   If $\eta = 1$, radical government is installed.
   
   If $\eta = 0$, the leader stays in power.

A radical government (dictatorship from below) can be prevented if and only if:

\[
V^p(A, \alpha^C_H, \tau^H) \geq V^p(R, \alpha^C_H) \Rightarrow w + \tau^H \omega + \delta \left[ kV^p(A, \alpha^C_H, \tau^H) + (1-k)V^p(A, \alpha^C_L) \right] \geq \frac{\alpha + \varepsilon}{1-\delta} \Rightarrow \\
w + \tau^H \omega + \delta k \left( V^p(A, \alpha^C_H, \tau^H) - V^p(A, \alpha^C_L) \right) + \delta V^p(A, \alpha^C_L) \geq \frac{\alpha + \varepsilon}{1-\delta}
\]

It is important to note here that:

\[
V^p(A, \alpha^C_H, \tau^H) = w^p + \tau^H \omega + \delta \left[ kV^p(A, \alpha^C_H, \tau^H) + (1-k)V^p(A, \alpha^C_L) \right] \\
V^p(A, \alpha^C_L) = w^p + \delta \left[ kV^p(A, \alpha^C_H, \tau^H) + (1-k)V^p(A, \alpha^C_L) \right] \\
V^p(A, \alpha^C_H, \tau^H) - V^p(A, \alpha^C_L) = \frac{\tau^H \varepsilon w}{\pi} \\
V^p(A, \alpha^C_H, \tau^H) = e^\varepsilon w + \frac{\tau^H \varepsilon w}{\pi} + \delta k \frac{\tau^H \varepsilon w}{\pi} + \delta V^p(A, \alpha^C_H, \tau^H) - \delta \frac{\tau^H \varepsilon w}{\pi} \Rightarrow \\
(1-\delta)V^p(A, \alpha^C_H, \tau^H) = e^\varepsilon w + \frac{\tau^H \varepsilon w}{\pi} + \delta k \frac{\tau^H \varepsilon w}{\pi} - \delta \frac{\tau^H \varepsilon w}{\pi} \Rightarrow \\
(1-\delta)V^p(A, \alpha^C_H, \tau^H) = e^\varepsilon w + \frac{\tau^H \varepsilon w}{\pi} \left[ 1 + \delta (k-1) \right] \Rightarrow \\
V^p(A, \alpha^C_H, \tau^H) = \frac{e^\varepsilon w \left( 1 + \frac{\tau^H}{\pi} \left[ 1 + \delta (k-1) \right] \right)}{1-\delta}
\]

Thus, the imposition of a radical government can be averted if and only if:

\[
e^\varepsilon w \left( 1 + \frac{\tau^H}{\pi} \left[ 1 + \delta (k-1) \right] \right) \geq \frac{\alpha + \varepsilon}{1-\delta} \Rightarrow e^\varepsilon w \left( 1 + \frac{\tau^H}{\pi} \left[ 1 + \delta (k-1) \right] \right) \geq \frac{\alpha + \varepsilon}{1-\delta} \Rightarrow \\
\alpha \leq e^\varepsilon w \left( 1 + \frac{\tau^H}{\pi} \left[ 1 + \delta (k-1) \right] \right) - \varepsilon
\]
Therefore, the threshold that makes the citizen indifferent between the imposition of a radical government and the preservation of the leader’s authority is the following:

\[
\alpha^* = e^x \left( 1 + \frac{\tau''}{\pi} \left[ 1 + \delta (k - 1) \right] \right) - \varepsilon
\]

**Proposition 1**

There is a unique Markov perfect equilibrium of the collectivist economy game that has the following form:

1. If \( \alpha < \pi \), then the leader preserves his authority.
2. If \( \alpha \geq \pi \), then the imposition of a radical government is likely and the following equilibria come into play:
   a. If \( \alpha \leq \alpha^* \), then in the low state \( \alpha_L \) the leader delivers the public good at \( \tau^l = \tau^L \) and in the high state \( \alpha_H \) the leader delivers the public good at \( \tau^h = \tau^H \).
   b. If \( \alpha > \alpha^* \), then in the low state \( \alpha_L \) the leader delivers the public good at \( \tau^l = \tau^L \) and in the high state \( \alpha_H \) a radical government is imposed.

**Corollary 1**

The emergence of a radical government (dictatorship from below) is more likely in a collectivist rather than in an individualist economy.

When the demand for the public good is lower than hierarchical control, the leader has no incentive to provide the public good in order to stay in power. However, when the demand for the public good is higher than or equal to hierarchical control, then the radical government constraint is binding and the leader needs to take action in order not to lose office. The credibility of his commitment depends on the probability of a high state in the future. If this is low, then radical government becomes attractive to citizens and the leader cannot prevent its occurrence. Furthermore, if the demand of the public good is lower than or equal to the threshold that makes the citizen indifferent between the leader’s authority preservation and the imposition of a radical government, then the leader delivers less public goods in the low state and more public goods in the high state. If on the contrary the citizen is determined to initiate protests and overthrow the leader, then in the low state the leader delivers the public good again at \( \tau^l = \tau^L \), but in the high state the imposition of a radical government occurs anyway and the leader is overthrown. When
the state is low in the radical government constraint is binding the leader always delivers less. If the state is high and the citizen is determined to protest, then the leader can do nothing to prevent his demise. If the state is high and the citizen is not determined to protest, then the leader can keep his office by delivering the public good at $\tau^I = \tau^H$.

World religions and their dichotomy into collectivist and individualist define the portant for regime stability in collectivist rather than in individualist economies. Corollary 1 suggests that the imposition of a radical government is more likely in a collectivist rather than in an individualist economy such that $\alpha^c < \alpha^i$ (see proof in the appendix). This is why it is much easier for a leader of a collectivist economy to lose power. The critical threshold $\alpha^c$ indicates that if the binding demand for public goods is higher, then in an individualist economy the imposition of a radical government is harder.

Historical evidence has shown that regime changes have been more frequent in states with Eastern Orthodox, Muslim Islamic and Roman Catholic majorities. The Russian Revolution as the first major transition of the 20th century can be explained as a failure of the Imperial Russian government to acknowledge the existence of a binding radical government constraint and credibly commit to the provision of more public goods to its subjects. Similarly, the endurance of the current regime in Russia can be explained as a story of credible commitment for the provision of more public goods in the form of the underdevelopment (“low” equilibrium) or centralization (“intermediate” equilibrium). The horizon of this policy still remains to be seen.

The recent uprisings in the Middle East can be explained through Muslim distributive norms and their influence both on hierarchical control and the demand for public goods. Security authoritarianism in Egypt, Tunisia, Yemen and Syria ignored the radical government constraint and persistently advanced high levels of hierarchical control in the administration. Democratic consolidation in the Arab world will only occur if the governments ensuing from riots and popular dissatisfaction with the status quo succeed where their previous ones failed: in the decentralized provision of more public goods.

*Subgame Perfect Equilibria*

The focus on Markov perfect equilibria resonates with the restrictive focus on religion as a motivating factor of economic transition and political change. The memorylessness of Markovian solutions as an equilibrium concept excludes harsher punishment strategies of the citizen against
the leader, when the imposition of a radical government becomes likely in the future. Because now the history of actions chosen by both players matters, the leader needs to preemptively offer more when the state is low, so that the citizen does not punish him with the imposition of a radical government, when the state becomes high again. To derive the maximum credible provision level of public goods that the leader is willing to offer, when the Markovian assumption is dropped, I introduce the following condition:

$$V^S(A, \alpha_C^L, \tau^D) = V^S(A, \alpha_C^L)$$

where $V^S(A, \alpha_C^L, \tau^D)$ is the recursive payoff from providing the public good in the low state at the provision level $\tau^D$ such that $\tau^D > \tau^L = 0$ and $V^S(A, \alpha_C^L)$ is the recursive payoff from deviation when $\tau^L = 0$. The deviation payoff is derived in the following way:

$$V^S(A, \alpha_C^L) = e^\pi w + \delta[kV^S(R, \alpha_C^H) + (1-k)V^S(A, \alpha_C^L)] \Rightarrow$$

$$(1-\delta)V^S(A, \alpha_C^L) = e^\pi w + \deltak[0-V^S(A, \alpha_C^L)] \Rightarrow$$

$$(1-\delta)V^S(A, \alpha_C^L) + \delta kV^S(A, \alpha_C^L) = e^\pi w \Rightarrow$$

$$V^S(A, \alpha_C^L) = \frac{e^\pi w}{1-\delta(1-k)}$$

Similarly, the recursive payoff from providing the public good at $\tau^D > \tau^L = 0$ is derived in the following way:

$$V^S(A, \alpha_C^L, \tau^D) = e^\pi w - \tau^D \frac{e^\pi w}{\pi} + \delta[kV^S(A, \alpha_C^H, \tau^H) + (1-k)V^S(A, \alpha_C^L, \tau^D)]$$

$$V^S(A, \alpha_C^H, \tau^H) = e^\pi w - \tau^H \frac{e^\pi w}{\pi} + \delta[kV^S(A, \alpha_C^H, \tau^H) + (1-k)V^S(A, \alpha_C^L, \tau^D)]$$

$$V^S(A, \alpha_C^H, \tau^H) - V^S(A, \alpha_C^L, \tau^D) = -\frac{e^\pi w}{\pi}(\tau^H - \tau^D) \Rightarrow$$

$$(1-\delta)V^S(A, \alpha_C^L, \tau^D) = e^\pi w - \tau^D \frac{e^\pi w}{\pi} - \delta k \frac{e^\pi w}{\pi}(\tau^H - \tau^D) \Rightarrow$$

$$V^S(A, \alpha_C^L, \tau^D) = \frac{e^\pi w}{1-\delta} \left(1 - \frac{\tau^D + \delta k(\tau^H - \tau^D)}{\pi}\right)$$

Therefore, the provision level $\tau^D$ in the low state $\alpha_C^L$ is obtained as follows:
The provision level \( \tau^D \) is shown to be an decreasing function of the provision level \( \tau^H \). The higher the provision that the leader offers to the citizen when the imposition of a radical government is imminent in the high state, the lower the amount of public goods that the leader has to deliver in the low state so that the citizen does not punish him with a dictatorship from below in the future. This result also resonates with Acemoglu and Robinson (2006: 143-144); the promised provision level of public goods in the low state is monotonically increasing with the discount rate \( \delta \). The more valuable the future is, the less likely it becomes that the leader will renege on his promise and therefore the higher the proposed provision level of public goods, when the imposition of a radical government is not imminent.

The recursive payoff of the citizen in the high state is derived similarly:

\[
V^P(A, \alpha^C_L, \tau^D) = \tau^D \frac{e^\tau w}{\pi} + w + \delta [kV^P(A, \alpha^C_H, \tau^H) + (1-k)V^P(A, \alpha^C_L, \tau^D)] \Rightarrow \\
V^P(A, \alpha^C_H, \tau^H) = \tau^H \frac{e^\tau w}{\pi} + w + \delta [kV^P(A, \alpha^C_H, \tau^H) + (1-k)V^P(A, \alpha^C_L, \tau^D)] \Rightarrow \\
V^P(A, \alpha^C_H, \tau^H) - V^P(A, \alpha^C_L, \tau^D) = \frac{e^\tau w}{\pi} (\tau^H - \tau^D) \Rightarrow \\
(1-\delta)V^P(A, \alpha^C_H, \tau^H) = \tau^H \frac{e^\tau w}{\pi} + w + \delta k \frac{e^\tau w}{\pi} (\tau^H - \tau^D) - \delta \frac{e^\tau w}{\pi} (\tau^H - \tau^D) \Rightarrow \\
V^P(A, \alpha^C_H, \tau^H) = \frac{w \left[ 1 + \frac{e^\tau w}{\pi} (\tau^H + \delta (k-1)(\tau^H - \tau^D)) \right]}{1-\delta}
\]
The threshold value $\bar{\alpha}^*$ is less than $\alpha^*$, which suggests that the imposition of a radical government is more likely, when the Markovian restriction of memorylessness is dropped and the citizen can punish the leader in subsequent time periods, when the state becomes high again (Acemoglu and Robinson, 2006: 143-147). This induces a higher provision of public goods by the leader in the low state compared to proposition 1. Hence, religion facilitates a stronger commitment to public goods provision rather than the imposition of a radical government, when the Markovian assumption does not hold. While the distinction between collectivist and individualist religions holds also in subgame perfect equilibria, it is more inclined to produce a differentiation across levels of public goods provision in the low state rather a dichotomous outcome related to the imposition of radical government. Religion can form the basis for the provision of incentive-compatible promises by the leader to the citizen and raise the standards of efficient governance. This is particularly true for collectivist religions, such as Orthodoxy, Catholicism and Islam, where the citizen’s reservation utility from the imposition of radical government is higher.

**ii. The Modernization Game**

In the radical government game, we have three possible equilibrium solutions: radical government, authority preservation with $\tau^j = \tau^H$ and authority preservation with $\tau^j = \tau^L = 0$. It is now useful to refine the stage game in terms of alternatives to radical government in collectivist societies. Underdevelopment is defined as the lowest possible level of public goods provision such that $\tau^j = \tau^U$. Modernization is defined as the highest possible level of public goods provision such that $\tau^j = \tau^M$. Centralization is defined as an intermediate level of public goods provision between modernization and underdevelopment, such that $\tau^j = \tau^Z = \frac{\tau^U}{1-\lambda}$ and $\lambda \in (0,1-\frac{\tau^U}{\tau^M})$. $\lambda$ denotes the extraction rate of the leader in the economy. That way, the inequality $\tau^M > \tau^Z > \tau^U$ holds. It is
also important to mention here that the citizen prefers the public goods provision level under modernization such that $\tau^M = \arg \max w^R + \tau^I \omega$. To prevent the likely imposition of a radical government, the leader now has three options: 1. Underdevelopment 2. Modernization and 3. Centralization.

The stage game of the collectivist economy game has now the following form:

1. $\alpha_c^L \in \{\alpha^L_c, \alpha^C_c\}$ is revealed.
2. The leader decides for or against underdevelopment: $\psi \in \{0,1\}$. Underdevelopment: $\psi = 1$.
3. If $\psi = 0$, the leader decides between modernization and centralization: $\zeta \in \{0,1\}$.
   Modernization: $\zeta = 1$ and centralization: $\zeta = 0$.
4. The citizen decides whether to protest or not against the government: $\eta \in \{0,1\}$.

If $\eta = 1$, a radical government is installed.

If $\eta = 0$, the leader stays in power and the provision level of public goods is his choice from the set $H^C = \{\tau^C, \tau^Z, \tau^M\}$.

Like in the previous section, prevention of a radical government in a collectivist society relies on the ability of the leader to convince the citizen that he will credibly commit to the provision of public goods in the future. The difference from the previous section is that here the leader has an additional third option, centralization, which depends on his extraction rate over the economy. That means that the leader may be interested in providing more public goods compared to underdevelopment but not as much as it would be the case under modernization.

In many authoritarian regimes, the ability of the leader to collect personal rents for the public and the private sector of the economy defines his tenure horizon. A leader who is successful in maintaining a high extraction rate over the economy may be more inclined to provide more public goods to the citizen in order to stay in power. This is the upward side of authoritarian stability. Nevertheless, the citizen may be empowered enough to challenge the leader, because the provision of public goods does not meet his normative priors. Then the leader may have to resort to the lowest possible provision of public goods in order to discipline the citizen and avoid a radical government threat in the future.
The dynamic payoffs for underdevelopment, centralization and modernization in collectivist societies have therefore the following form:

**Underdevelopment**

\[ V^S(U, \alpha_H^S = \alpha + \epsilon, \tau^j = \tau^U) = w^S - \tau^U \omega + \delta[kV^S(U, \alpha_H^C, \tau^U) + (1-k)V^S(N, \alpha_l^C)] \]

\[ V^P(U, \alpha_H^C = \alpha + \epsilon, \tau^j = \tau^U) = w^P + \tau^U \omega + \delta[kV^P(U, \alpha_H^C, \tau^U) + (1-k)V^P(N, \alpha_l^C)] \]

**Centralization**

\[ V^S(Z, \alpha_H^C = \alpha + \epsilon, \tau^j = \tau^Z) = (1+\pi)(w^S - \tau^Z \omega) + \delta V^S(Z, \alpha_H^C, \tau^Z) = \frac{(1+\pi)(w^S - \tau^Z \omega) - \delta V^S(Z, \alpha_H^C, \tau^Z)}{1-\delta} \]

\[ V^P(Z, \alpha_H^C = \alpha + \epsilon, \tau^j = \tau^Z) = (1-\pi)(w^P + \tau^Z \omega) + \delta V^P(Z, \alpha_H^C, \tau^Z) = \frac{(1-\pi)(w^P + \tau^Z \omega) - \delta V^P(Z, \alpha_H^C, \tau^Z)}{1-\delta} \]

**Modernization**

\[ V^S(M, \alpha_H^C = \alpha + \epsilon, \tau^j = \tau^M) = \frac{w^S - \tau^M \omega}{1-\delta} \]

\[ V^P(M, \alpha_H^C = \alpha + \epsilon, \tau^j = \tau^M) = \frac{w^P + \tau^M \omega}{1-\delta} \]

I assume that modernization persists in the future, once it is implemented. This commitment device is the only sufficient way that the leader has to prevent a dictatorship from below, when the citizen is determined to protest against him and thus replace him. Modernization is the credible promise of the leader that he will continue to deliver the highest possible amount of public goods in the future. On the contrary, underdevelopment does not offer any guarantee for continued provision of public goods in the future. The leader can either continue with the provision of the public good at \( \tau^j = \tau^U \) or stop delivering the public good to the citizen. For the citizen, underdevelopment includes the reversal threat to the state of backwardness where no public good is provided. This is why he will always prefer modernization to underdevelopment so that he does not stage a protest and undermine leader’s power. The leader will always try to avert a radical government with the lowest possible level of public goods provision. Because this may not always be the case with underdevelopment, I introduce here an intermediate level in the provision of public goods, centralization. An interesting aspect in modeling centralization is that it also repeats itself infinitely once chosen by the leader. As it is the case with modernization, the leader promises that he will not revert to backwardness after centralization is chosen. This is the case because that way the leader reduces the probability of radical government without having to
resort to the costlier solution of modernization. Post-Soviet Russia under Putin and China under the Communist Party are useful paradigms that justify the design of centralization as a public goods commitment device.

The leader always prefers underdevelopment to modernization. It is now important to set the threshold value for $\lambda$ that makes the leader indifferent between underdevelopment and centralization:

$$V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^j = \tau^U) \geq V^S(Z, \alpha^C_H = \alpha + \varepsilon, \tau^j = \tau^Z \mid \lambda)$$

The recursive payoff of the leader in underdevelopment is derived as follows:

$$V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) = w^S - \tau^U \frac{w^S}{\pi} + \delta[kV^S(U, \alpha^C_H, \tau^U) + (1-k)V^S(N, \alpha^C_L)]$$

$$V^S(N, \alpha^C_L = 1 - \varepsilon) = w^S + \delta[kV^S(U, \alpha^C_H, \tau^U) + (1-k)V^S(N, \alpha^C_L)]$$

$$V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) - V^S(N, \alpha^C_L = 1 - \varepsilon) = -\frac{\tau^U e^\delta w}{\pi}$$

$$V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) = e^\delta w - \frac{\tau^U e^\delta w}{\pi} - \delta k \frac{\tau^U e^\delta w}{\pi} + \delta V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) + \delta \frac{\tau^U e^\delta w}{\pi} \Rightarrow$$

$$(1-\delta)V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) = e^\delta w - \frac{\tau^U e^\delta w}{\pi} - \delta k \frac{\tau^U e^\delta w}{\pi} + \delta \frac{\tau^U e^\delta w}{\pi} \Rightarrow$$

$$(1-\delta)V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) = e^\delta w - \frac{\tau^U e^\delta w}{\pi} [1 + \delta(k-1)] \Rightarrow$$

$$V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^U) = \frac{e^\delta w}{1-\delta} - \frac{\tau^U e^\delta w}{\pi(1-\delta)} [1 + \delta(k-1)] = \frac{e^\delta w \left(1 - \frac{\tau^U}{\pi} \right) [1 + \delta(k-1)]}{1-\delta}$$

Now it is straightforward to derive the threshold value of $\lambda$:

$$V^S(U, \alpha^C_H = \alpha + \varepsilon, \tau^j = \tau^U) \geq V^S(Z, \alpha^C_H = \alpha + \varepsilon, \tau^j = \tau^Z \mid \lambda) \Rightarrow$$

$$e^\delta w \frac{1 - \frac{\tau^U}{\pi} [1 + \delta(k-1)]}{1-\delta} \geq \frac{(1+\pi)(e^\delta w - \frac{\tau^U e^\delta w}{(1-\lambda)\pi})}{1-\delta}$$

$$e^\delta w \left(1 - \frac{\tau^U}{\pi} [1 + \delta(k-1)] \right) \geq e^\delta w (1+\pi)(1 - \frac{\tau^U}{(1-\lambda)\pi})$$
This means that if $\lambda \geq \lambda^*$, then the leader prefers underdevelopment to centralization, whereas the opposite holds if $\lambda < \lambda^*$.

I now set the threshold value that makes the citizen indifferent between radical government and modernization, given that $\tau^M = \arg\max (1 - \tau^j)w + \tau^j\omega$:

$$V^P(M, \alpha_R^C = \alpha + \epsilon, \tau^j = \tau^M) \geq V^P(R, \alpha_R^C = \alpha + \epsilon) \Rightarrow \frac{w + \tau^M\omega}{1 - \delta} \geq \frac{\alpha + \epsilon}{1 - \delta} \Rightarrow w + \tau^M\omega \geq \alpha + \epsilon \Rightarrow \frac{w + \tau^M e^\pi}{\pi} - \epsilon \geq \alpha \Rightarrow \alpha \leq \frac{w + \frac{\tau^M e^\pi}{\pi}}{1 - \delta} - \epsilon$$

Thus, the threshold value for the demand of public goods has the following form:

$$\alpha^{**} = w\left(1 + \frac{\tau^M e^\pi}{\pi}\right) - \epsilon$$

This means that if $\alpha \leq \alpha^{**}$, then the citizen is not likely to impose a radical government, and if $\alpha > \alpha^{**}$, then the radical government is likely to be imposed.

**Proposition 2**

There is a unique Markov perfect equilibrium of the collectivist economy game that has the following form:

1. If $\alpha < \pi$, then the leader remains unchallenged. Backwardness persists.
2. If $\alpha \geq \pi$, then the radical government constraint is binding and the following equilibria are observed:
   a. If $\alpha \leq \alpha^{**}$ and $\lambda^* \leq \lambda$ or $\alpha > \alpha^{**}$ and $\lambda^* > \lambda$, then the leader chooses underdevelopment:
   $$\tau^j = \tau^U.$$
b. If \( \alpha \leq \alpha^* \) and \( \lambda^* > \lambda \), then the leader chooses centralization: \( \tau^i = \tau^Z \).

c. If \( \alpha > \alpha^* \) and \( \lambda^* \leq \lambda \), then the leader chooses modernization: \( \tau^i = \tau^M \).

In a collectivist society, when the citizen is not likely to protest against the leader and thus install a radical government that will oust him, then the leader chooses between his two most favorable provision levels: underdevelopment and centralization. His choice depends on the value of the exogenously defined \( \lambda \) and whether it above or below his indifference threshold \( \lambda^* \). Nevertheless, when the citizen finds the imposition of a radical government attractive, the leader is obliged to follow one of the two corner choices of his strategy set in order to stay in power: underdevelopment or modernization. Under the threat of a radical government and a below-threshold extraction rate, the leader chooses underdevelopment, because centralization transmits the wrong information to the citizen and thus encourages radical government. The leader knowing that will offer to the citizen the lowest possible provision level (underdevelopment) as a form of punishment, such that as \( \lim_{\lambda \to 0} \tau^Z = \tau^U \). Similarly, when a radical government is imminent and the leader has a high extraction rate over the economy, the citizen will not be willing to accept even the modernization provision level of the public good. The provision level of the public good under centralization is costly and likely to further encourage radical government. The leader knowing that will choose modernization in order to preserve his authority such that \( \lim_{\lambda \to \pi^*} \tau^Z = \tau^M \).

**Comparative Statics**

In the analysis of the equilibrium comparative statics, I explore the relationship between hierarchical control and modernization. For high levels of hierarchical control, modernization does not occur because the threat of radical government is not binding. I take the derivative of \( \alpha^* \) such that:

\[
\frac{\partial \alpha^*}{\partial \pi^*} = \tau^M \frac{w e^\pi (\pi - 1)}{\pi^2} < 0
\]

where \( \pi^* \) denotes a critical threshold of hierarchical control. It is obvious that if \( \pi^* \geq \pi \), modernization is selected by the leader. He cannot use his mechanisms of surveillance and control to reduce the provision level of the public good in order to stay in power. He needs to offer a higher provision level for that end. Furthermore, I take also the derivative of \( \lambda^* \):
where \( \tilde{\pi} \) denotes a second critical threshold of hierarchical control such that \( \pi^* < \tilde{\pi} \). A higher capacity for hierarchical control reduces the provision level for underdevelopment and thus makes centralization a more attractive option for the leader who wants to extend his tenure horizon. Higher hierarchical control helps the leader to increase his extraction rents from the economy and offer more public goods to the citizen without any rising threat for radical government. Thus, centralization occurs if \( \pi > \tilde{\pi} \). Underdevelopment occurs at intermediate levels of hierarchical control. When hierarchical control is too high, the leader is better off by choosing centralization; by providing the public good at the centralization rather than at the underdevelopment level he minimizes the threat of a radical government in the future. When hierarchical control is too low, the leader chooses modernization, because in that case the demand threshold of the citizen is too high and thus it is less costly to provide \( \tau^M \).

**Lemma 2**

*In the collectivist economy game there is a negative monotonic relationship between hierarchical control and modernization. When \( \pi^* \geq \pi \), modernization is selected by the leader. When \( \pi > \tilde{\pi} \), the leader opts for centralization. Underdevelopment occurs at intermediate levels of state enforcement such that \( \pi^* < \pi < \tilde{\pi} \).*

Modernization occurs when the state credibly promises to provide a sufficient amount of public goods to its citizens at low levels of hierarchical control. Because the leader opts for modernization when \( \lambda^* \leq \lambda \), modernization is more likely the lower \( \lambda^* \) is. The inverse holds for centralization; the higher \( \lambda^* \) is, the more likely is the leader to opt for centralization. Underdevelopment reflects the choice of a leader, who is not too weak to give in to the demand of the citizen in order to prevent a radical government, but he is also not too strong, in order to prefer centralization to underdevelopment for the preservation of his authority. Putin’s Russia and contemporary China are typical cases of centralization, whereas underdevelopment holds for the majority of states in the Middle East and the former Soviet Union. Modernization was about to occur in the 1990s in Russia but the effort collapsed when hierarchical control approximated zero.
This is a useful lesson for the Muslim states in the Middle East that decided to pave their way toward democracy and the rule of law; hierarchical control needs to be low but it has to exist.

Subgame Perfect Equilibria

When the Markovian restriction is not taken into account, the leader needs to consider the punishment strategies available to the citizen in order to stay in power. The results here are similar to those in the radical government game. Because the citizen receives a lower payoff from modernization rather than authority preservation such that $\tau^M \geq \tau^H$, then the provision level of public goods in the low state is also becoming lower, such that $\tau_D = \frac{\pi - \pi(1-\delta) - \delta k \tau^M}{1-\delta k}$. Because the citizen is better off from modernization rather than authority preservation, the leader has now a higher incentive to deviate compared to the radical government game. This is why he is willing to offer a lower provision level of public goods in the low state, such that $\tau_D^{-} < \tau_D^{+}$, when the Markov assumption is dropped. Similarly, the threshold value that makes the citizen indifferent between modernization and the imposition of a radical government is given by the following condition:

$$V^{p}(N, \alpha^{C}, \tau^{M}) = \frac{w\left(1+\frac{e^{\gamma}}{\pi} \left[\tau^{M} + \delta (k-1)(\tau^{M} - \tau^{D})\right]\right)}{1-\delta} = V^{p}(R, \alpha^{C}) = \frac{\alpha + \varepsilon}{1-\delta} \Rightarrow \bar{\alpha}^{+} = w\left(1+\frac{e^{\gamma}}{\pi} \left[\tau^{M} + \delta (k-1)(\tau^{M} - \tau^{D})\right]\right) - \varepsilon \Rightarrow \bar{\alpha}^{+} > \bar{\alpha}$$

The leader is more incentivized to deviate, when his punishment is modernization rather than the imposition of a radical government by the citizen. The threshold value $\bar{\alpha}^{+}$ suggests that the imposition of a radical government is less likely in the modernization game, rather than in the radical government game where the threshold value is $\bar{\alpha}$. Nevertheless, a common underpinning of the best equilibrium solutions for the leader in both games is that he needs to make incentive-compatible promises in the low state that generate a higher provision level of public goods compared to the Markovian solutions presented above. This is in line with Acemoglu and Robinson (2006: 175-177) and provides a solid explanatory foundation for the effect of religion on political regimes. Collectivist religions such as Orthodoxy, Catholicism and Islam induce an even
higher level of commitment for the provision of public goods, when the citizen can punish the leader’s deviation from the equilibrium path in subsequent time periods.

V. Conclusions

My theory suggests that distributive norms at the level of religious collectives define the demand for public goods by citizens and institutional conditions for the provision of public goods. Islam, Orthodoxy and Catholicism are defined as collectivist religions, because they induce a higher demand for public goods and higher levels of hierarchical control, while Protestantism and Judaism as individualist religions, because they induce a lower demand for public goods and lower levels of hierarchical control in the bureaucracy. Modernization occurs as commitment mechanism proposed by the leader to his citizens, in order to stay in power. It is the economic equilibrium of democracy and it occurs at low levels of hierarchical control. Underdevelopment occurs at intermediate levels of hierarchical control and it is the economic equilibrium of dictatorship. Centralization occurs at high levels of hierarchical control and it is the economic equilibrium of semi-authoritarianism.

Religion does not matter only as a set of normative rules that define the human relationship to God. On the contrary, religion is important as a political-economic phenomenon. Because world religions have different socio-economic prerogatives about resource distribution and community organization, they condition different types of economic systems and political regimes. The comparative study of the Eastern Orthodox monastery and the Jewish kibbutz as economic systems cannot be easily separated from the political and economic environment that led to their emergence and transformation. Nevertheless, it provides evidence on distributive norms in religious collectives and the extent to which they shape individual and collective welfare.

State formation and economic transition have always relied on extractive public administrations and a mobilized citizenry. This paper is one of the first studies that place religion in the epicenter of this stylized transformative process. The radical government and modernization games that I propose for collectivist economic systems have common grounds: the elaboration of conditions under which the leader manages to preserve his authority, when the imposition of a radical government by the citizen is likely. In states with collectivist religious majorities,
modernization occurs at levels of low state enforcement and the emergence of a radical
government is always likely. Centralization is the leader’s choice when he can afford to provide
more public goods to his citizens at high levels of state enforcement. That way, he manages to
preserve his authority without having to make major concessions in the future.

References


Appendix

Proof of Corollary 1

In a collectivist economy the citizen is indifferent between modernization and radical government if and only if $\alpha^{c*} = e^\varepsilon w \left(1 + \frac{\tau_H}{\pi} \left[1 + \delta(k - 1)\right]\right) - \varepsilon$. Similarly, in an individualist economy the citizen is indifferent between modernization and radical government if and only if $\alpha^{i*} = e^\varepsilon w \left(1 + \frac{\tau_H}{\pi} \left[1 + \delta(k - 1)\right]\right) + \varepsilon$. It follows that $\alpha^{i*} > \alpha^{c*}$.