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Essays on Political Economy of Religion

by

Theocharis Nikolaou Grigoriadis

A dissertation submitted for partial satisfaction of the requirements for the degree of

Doctor of Philosophy

in

Political Science

in the

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of the

University of California, Berkeley

Committee in charge:

Professor Gérard R. Roland, Chair
Professor Barry J. Eichengreen
Professor Michael S. Fish
Professor Sean P. Gailmard
Professor James B. DeLong

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Essays on Political Economy of Religion

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by

Theocharis Nikolaou Grigoriadis
Abstract

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Doctor of Philosophy in Political Science

University of California, Berkeley

Professor Gérard R. Roland, Chair

My dissertation constitutes a contribution to the study of religion and political economy. It consists of four essays. My first essay argues that religious norms matter for the economic nature and modernization of political regimes. Religion is defined as a commitment device between the leader and his selectorate. More collectivist religions require a higher level of public goods provision by the government. In the collectivism-individualism continuum, Islam is treated as the most collectivist and Protestantism as the most individualist religion, while Judaism is denoted as the median religion. Eastern Orthodoxy and Roman Catholicism are located in intermediate points between Judaism and Islam or Protestantism respectively. In the analysis of dominant religions in Eastern Europe and the Middle East, this ordered sequence of demands for public goods is defined by the structure of the Eastern Orthodox, Jewish and Muslim collectives: the monastery, the kibbutz, and the tariqa. Popular demand for public goods is shaped by religious norms. Leaders consider those in order to decide the intensity and nature of modernization. Regime transition occurs when the leader is not able to meet popular demand for public goods. Contrary to conventional wisdom, modernization does not reduce the influence of religious norms on public goods distribution and can facilitate transition both to democracy and dictatorship. In my second essay, I analyze the effects of religious identity on attitudes toward political centralization. I define religious identity as personal identification with distinct religious traditions and collective ideas regarding the provision of local public goods. In individualist religions such as Protestantism and Roman Catholicism, local public goods are defined as contracts between individuals and local government (contractual public goods). In societies where such religions dominate, we should expect to see negative effects of religious identity on evaluation of central government, because local governments providing such local public goods are more accountable to citizens and in this sense more consistent with individualist ideals. In
collectivist religions such as Islam and Eastern Orthodoxy, on the other hand, local public goods are defined as welfare guarantees directed to citizens by the local government (hierarchical public goods). In societies where such religions dominate, we should expect to see positive effects of religious identity on evaluation of central government, since local administrations that are strongly accountable to the central government are best able to make good on such guarantees. Judaism combines elements from both collectivist and individualist religions. In Israeli Jewish society, where public goods are treated both as contractual and hierarchical, we should expect to see both negative and positive effects of religious identity on evaluations of central government. I test these predictions using survey data from Russia and Israel newly gathered for this project. Consistent with the theory’s predictions, I find that in Russian Orthodoxy, Sunni Islam and Arab Christianity (Greek Orthodoxy and Eastern Catholicism), religious identity is positively associated with evaluations of central government. Similarly, in Judaism I find that religious identity as personal identification matters negatively and as collective ideas positively for evaluations of central government. My third essay examines experimentally the effects of collectivism on public goods contributions by regional bureaucrats in Tomsk and Novosibirsk, Russia. I expand the standard public goods experiment with three treatments, which I define as degrees of Orthodox collectivist enforcement: 1. Solidarity, 2. Obedience, and 3. Universal discipline. I argue for an Eastern Orthodox rationality in the Russian bureaucracy that prioritizes collective welfare over individual profit. Russian Orthodox collectivism is implemented through Bayesian and collectivist disciplinary monitoring such that hierarchical revelation of individual contributions and enforcement of collective punishment occur. Contrary to conventional wisdom about free-riding in administrative institutions, higher ranks in Russian Orthodox bureaucracies are associated with higher levels of contributions and enforcement. En lieu of conclusions, in my fourth essay, I discuss the political and economic incentives that led to the emergence, peak and contraction of Kulturkampf in the Catholic lands of Prussia between 1871 and 1878. I argue that Bismarck’s Kulturkampf reveals the fallacies of secularism as a series of enforced state policies: 1. De facto dominance of religious majority over religious minorities that are in much higher need to preserve their public and social status, 2. Transformation of clergymen into bureaucratic experts. The distinction between collectivism and individualism can be validated through the degree of restrictions imposed on religious institutions and their presence in the public sphere. Secularism is not devoid of religion, as it consistently advocates bureaucratic expertise and thus transition to more individualist forms of government.
To my parents, Niko and Effie Grigoriadis, with love
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Chapter 1

Introduction

The entanglement of religion with government is not new in social science. My intention here is to provide a theory of religion and government that transcends and reviews the secularism-clericalism debate and treats religion as a hard budget constraint on decisions made by administrative institutions, a structure that supersedes state authority and shapes the distributive choices made by bureaucrats, and a set of norms that define citizen perceptions of government, its capacity and mission in society. I understand the public and the private sector as complementary in terms of institutional choice and economic development. While the private sector cannot exist without a set of minimum regulatory rules that define its operations, the public sector is also influenced by interest groups and civic organizations that claim a lesser or higher proportion of the public domain. Religion is the unifying element that sheds light to economic operations and administrative structures in both the public and the private economy. Greif’s theory of collectivist and individualist economies originates from the observation that enforcement rules, intereconomy relations, commercial networks structure and wealth distribution were diametrically different in Genoese and Maghreb merchants. These differences are attributed by Greif to cultural beliefs, which lead to collectivist and individualist economic systems; collectivist economies are more protectionist and require cheaper formal institutions for law enforcement, while individualist economies advance intereconomy relations and thus require higher enforcement costs.

The symmetric analogy, according to Greif, 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 can be significant for economic development, state organization and capacity. Moreover, cultural values seem to matter not only because they are reflected in contract enforcement and market development, but also because they necessitate different administrative mechanisms and rules for their perpetuation. This is why religion more than any other aspect of culture is essential in analyzing regime types, bureaucracies and state-society relations. I treat the secularism-clericalism debate as superficial and unable to capture what has been in my opinion the main function of religion in government. Rather than being a measure of state opportunism in democracies or hierocratic practice in dictatorships, I argue that religion provides the state with a set of normative elements that consolidate its legitimacy and facilitate the protection of the citizens’ collective interests. Religious norms are by definition of collective nature. The belonging to a collective, the essence of individual

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2 Ibid.
salvation and the state of human condition after natural death, all define and justify the
presence of religion in society.

The role of the state as religious icon can be supported from a rational standpoint by
a political leader who wants to rule for an infinite time horizon or maximize his rents from
staying in office. Furthermore, interest groups and civic organizations with diverse and
oftentimes opposing material claims and institutional interests may support the shaping of
administrative processes and political control by religious norms. The latter may facilitate
an outsourcing of government activity to them, particularly in the areas of social policy
and education. Hence, religion provides the state with models of governance and
government. Modern states have antecedent religious institutions in their respective
territories. Religious competencies, organizational structures and enforcement
mechanisms, which have endured in time, are considered to be effective. The adjudication
of family and inheritance law disputes by religious courts or secular courts influenced by
religious norms has been common in countries with an Eastern Orthodox or Muslim
majority. The task of identifying underlying religious principles in private rather than
public law is easier, because religious law has traditionally focused on the regulation of
everyday life, the development of social networks and private economic affairs.
Nevertheless, I argue that religious law matters for political institutions to the extent that
financing and welfare principles in the structure of religious institutions can be traced in
public finance, collective decision-making processes in public bodies – representative or
appointed – and policies adopted by religious leaders, which have defined the
implementation of dogmatic rules into practice.

The collectivism-individualism divide becomes therefore relevant in the study of
religion and political economy, because it goes beyond the institutional surface of the
power equilibrium between religious institutions and public authorities. While the degree
of the clergy’s financial dependence from the central or subnational government may
serve as an indicator about the political and economic equilibria between secular and
religious authority, it certainly does not explain the mission and objectives of the state in
religious terms. The clergy does not have a monopoly in defining what is religious and
what is not. It just has one interpretative angle, which is consolidated by its involvement
in regular preaching and its administrative supervision of religious practice. Nevertheless,
it is important to keep in mind that: 1. Religion certainly preceded and sometimes led to
the formation of national identities and 2. States pursue a path of mimesis when it comes
to the creation of monitoring and enforcement agencies. The principle of subsidiarity,
originating from the administrative practice of the Roman Catholic Church, the most
centralizing religious authority in the world, was instrumental in the consolidation of the
European Union and the existence of overlapping legal orders between the member-states
and the supranational authority residing in Brussels. The same holds for the governance
rules of Eastern Orthodox monasticism and the way they found their implementation in
Ivan the Terrible’s oprichnina.
As Philip Gorski suggests, Calvinism created the conditions for disciplinary revolutions in the Netherlands and Brandenburg-Prussia; in that sense he uses the term disciplinary revolution as a substitute to Marx’s bourgeois revolution. At the same time, he uses the term disciplinary revolution to underscore the rapid spread of disciplinary technologies that facilitated state consolidation in early modern Europe; he argues that confessionalization, state power and social-disciplining are intertwined. Gorski’s argument is that the disciplinary capacity of religion increases state power, because it generates more efficient bureaucracies and advances social order treats religion as an exogenous shock that shapes the state ex post rather than ex ante. The historical development of Calvinism as a reaction to Vatican’s political authority by Northern European principalities treats religion as a rationalization movement against administrative centralization and social arbitrariness. My argument here has similar origins but arrives to completely different hypotheses. First, I do not treat religion as a disciplinary mechanism that transforms state infrastructure through rational sociopolitical ethics and social infrastructure. On the contrary, I suggest that religion itself constitutes an administrative, social and economic system that the government imitates in order to increase its survival. The mimesis of religious organizations by administrative institutions can vary given changing political and economic constraints in dynamic environments. This first-order condition refers to the incentives of political leaders; however, my narrative is not only an elite-driven one. I analyze the incentives and provide evidence for the preferences of two more groups, which are essential in the administrative process: local bureaucrats and citizens. My review of Marx and his intellectual descendants, Weber, Durkheim, Lipset and Rokkan offers a comprehensive critique to standard analytical approaches to religion and government while treating religion in its key dimensions: as state structure, party cleavage, and welfare arrangement. Secularism is reviewed and criticized in its organizational and welfare dimensions. Large-N data from the two most recent world elections are used to support my theoretical arguments.

Russia and Israel form the set of my cases in this manuscript. Since the collapse of the Soviet Union, Russia has been the main successor state to the administrative and social traditions of Eastern Orthodoxy and socialism, which – as I will argue later on – are inseparable. Israel was established as a Jewish and democratic polity after World War II and the collective trauma of the Holocaust. Nevertheless, the strong presence of indigenous Arab population within its borders allows for a thorough study of Judaism and Islam as administrative cultures at the central and local levels.

1.1 Political Parties, Social Cleavages and Religion

Lipset and Rokkan have been the first to introduce religion into modern social science. They argue that in competitive party systems cross-local communication matters and party functions can be instrumental or representative. Moreover, they suggest two dimensions of cleavage – territorial-cultural and functional – and four types of cleavage across the criteria of polity, economy, integration and locality: center vs. periphery culture, nation-state vs. church privileges, landed interests vs. industrial entrepreneurs, and workers vs. owners. Given the four cleavages they posit, four corner regime solutions are identified: communal federalism, functional corporatism, irredentist totalitarianism, nationalist totalitarianism. While they identify a linkage between the working class and societal openness, their analysis is structural and historically dependent. In order to explain the sequential cleavages in administrative organization, religion, class and economic development as well as property, they suggest critical historical events that provided the grounds for these path-breaking changes; the Reformation, the National Revolution and the Industrial Revolution. There is a linear evolutionary pattern among these three events. The center-periphery cleavage which was instigated by Reformation and Counterreformation, evolved into the distinction between national Protestant churches and the supranational authority of the Vatican. Thus, the peak of Reformation can be treated as a national movement itself, which granted localities financial independence from the administrative center, and local rulers spiritual and moral independence from Rome. This is why Lipset and Rokkan think it is possible to treat the French Revolution as the main Reformation peak, which in the 19th century consolidated the separation of church from the state and initiated secularism as a form of public finance organization and intergovernmental relations. This was particularly the case, as they suggest for religiously mixed or Catholic countries, because established Protestant churches within predefined state jurisdictions had already been co-opted into state structures.

At the same time, the land-industry divide, which was caused by the Industrial Revolution in the 19th century, gave rise to a different set of conflicts linked to the level of agricultural tariffs, industrial base transformation, and the owner-worker relationship. The Russian Revolution is regarded by Lipset and as a key second-order event of the Industrial Revolution. This interpretation assumes that in the Russian Revolution workers achieved the highest level of class consciousness and were thus incentivized to join their

7 Ibid: 24.
8 Ibid: 13-14 and 34.
national revolutionary movement. Nevertheless, it may well be the case that worker class interests were much better served in social-democratic Scandinavia than in the communist Soviet Union. Industrial base transformation followed an elite change at the level of government; it was simply not the cause of it.

In their model Lipset and Rokkan treat religion as the first social cleavage that found its expression in the power struggle of the Reformation. Political and economic change as these are modeled in the Democratic and Industrial Revolutions represent sequential phenomena of the Reformation. This is why the birth of party systems is important. It signals the transition from Roman Catholic religious authority, political authoritarianism, and feudal economic interests to national Protestant churches or secularism, political openness and representation, and industrial development. The sequence of thresholds that hallmark this transition is the following: 1. Legitimation, 2. Incorporation, 3. Representation, and 4. Majority power. Sartori points out that the Lipset and Rokkan theory is treating party systems as mechanisms of class representation under conditions of industrialization. According to Lipset and Rokkan, cleavages are either likely to be mutually reinforcing or mutually neutralizing. The freezing of party systems that they observe occurs because party systems in the 1960s reflect equilibria choices of the 1920s; nevertheless the existence of political uncertainty undermines the evolutionary, yet fixed, socio-political arrangements implied in the research programs of Lipset and Rokkan as well as Lipset and Bendix. Torcal and Mainwaring provide evidence that the stability of social cleavages holds, even when the original cause for their emergence does not exist anymore; they believe in the social-based emergence of societal divisions. They suggest that political agency combined with authoritarian legacies shaped the Chilean party system, particularly in its post-authoritarian period after 1973-1990.

Separation of religious institutions from the state is treated as key to modernization, political and economic. Nevertheless, religion as a social cleavage did not end in the 19th century, when secularism formed the institutional grounds of the modern nation-state. It perpetuated its influence in the 20th century; the differences between Catholicism and Protestantism have been also reflected in voting preferences of citizens in multi-confessional societies. In Switzerland, the Catholic electorate favored higher levels of statism, lesser alignment with the Nazi party, and stressed the significance of family and communal values as well as political demands for social welfare; there is a clearly limited

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11 Ibid: 38.
15 Ibid.
17 Ibid.
anti-capitalist inclination in Catholicism.\textsuperscript{18} Furthermore, Christian democracy has been traditionally linked to Catholicism, whereas social democracy to Protestantism.\textsuperscript{19} In the Swiss political system, the voters of the Christian Democratic Party regard family values as extremely important for their choice, while voters of the Social Democratic party have a special interest about environmental issues and the rights of the working class.\textsuperscript{20}

Nevertheless, it is very important to keep in mind that culture and thus religion matters for the support of political preferences in multiple ways; political culture is usually defined as a set of values that reveal the preferences of the majority on dichotomous issues such as social welfare vs. equality of opportunity.\textsuperscript{21} Lipset and Rokkan are wrong when they treat the separation of religion from the state as a condition for modernization. One can make an argument for quite the opposite. Religion matters in party systems and voter alignments in different ways that it did in the past. The question now is not whether education should be offered by the state or a religious institution or whether the state should pay the salaries of priests. Religion can be used in politics as an agenda-setting factor, when it comes to issues of minority rights protection, as a model of administrative organization, useful for community development, or as an institutional parameter for welfare provision arrangements. The use of the word \textit{religion} may correspond to an institution, individual faith, dogma, welfare networks, or everyday life rules. Moreover, the subject of religious preferences can be a citizen, a bureaucrat, a government, an interest group, a civic organization or a political leader.

Therefore, the high dimensionality of religion undermines the credibility of the social cleavages theory in democratic and nondemocratic societies. It is simply impossible to treat religion as a fixed set of preference points that may have some predictive value over an electoral outcome or a bureaucratic appointment. Religion relies on tradition, but it is also a living and thus dynamic component of collective identity in any society. Religious norms are not only translated in terms of interparty political competition in democracies, but also in terms of majoritarian bureaucratic organization. In any political community, I argue that the religion of the majority influences the choices of bureaucrats, sets a threshold for public welfare and is reflected in intergovernmental relations and the provision of local public goods. This proposition holds at different levels for homogenous and diverse political communities.

As Levy argues, welfare policies do not need to be inefficient and thus supported only by left-wing parties; the case of Christian Democratic reformers in France, Italy and the Netherlands indicates that correcting for inefficiencies in welfare does not necessarily


\textsuperscript{19} Ibid.


mean reduction of the welfare state.\textsuperscript{22} This is why the transformation of vice into virtue becomes a window of opportunity; the implementation of welfare reforms can take place without compromises in efficiency.\textsuperscript{23} In the appendix below, I provide four tables that shed light to some of the arguments presented above. In figure 1.1, European liberal parties score substantially low in presidential elections. Nevertheless, it is important to keep in mind that 1. Presidential elections are always more polarized than parliamentary ones, and 2. The majority of liberal parties that were able to qualify for participation in the presidential election are to be founded in Eastern Europe and countries such as Poland, Russia, Ukraine, Slovakia, Macedonia, Armenia and Belarus.

This is an interesting inference on post-socialist East European liberalism, particularly in the post-transition period; while the commitment of East European liberal parties to free market values holds, the absence or limited presence of a networked society and the strong presidential character of those regimes is inclined to lead them oftentimes to more nationalist rhetoric and trade of votes for future political rents. Only Austria is an exception where classical liberalism is part of mainstream political discourse; however, even here the liberal origins of Austria’s Freedom Party which is linked to far-right policies is not to escape the attention of the author. In figure 1.2, it becomes clear that in parliamentary elections the scores of liberal parties are substantially higher in Protestant rather than in Catholic or Orthodox countries. Liberal parties are also to be observed in states with a significant minority profile. Moreover, social democratic parties are much more establishment organizations than they are defenders of the working class; thus, they are less likely to convey information about the distributive preferences of the electorate. In figure 1.3, liberal parties are yet the main indicator of a political system’s maturity and democratic inclination. It is not incidental that only Algeria, Egypt and Yemen had a valid presidential candidate in the last five to ten years, who at least proclaimed to be liberal. Muslim countries are less inclined to favor liberal politics, from what recent experience has shown. The presence of a strong secular opposition movement in Egypt, the diverse public space of Yemen, and the choice of the Algerian regime to rely at least partly on some liberal principles explain this phenomenon. In table 1.4, Israel is the only state in the Middle East where a liberal party scored significantly well in parliamentary elections; the liberalism cause identifies itself among the Israeli population with peace, resolution of the Arab-Israeli conflict and protection of minority rights.

1.2 The Dialectical Nature of Eastern Orthodoxy

Lipset and Rokkan were the first that linked religion to political regimes, but they were certainly not the first who understood religion as a powerful instrument in mass


\textsuperscript{23} Ibid.
politics and economic organization. I start my review of classical social theory and its relevance to religion with Marx and some of his select intellectual descendants. The primary reason for that is the influence of Marx and Marxism on the political and economic development of Russia in the 20th century, the Zionist movement that led to the emergence of Israel, and the political mobilization of Palestinians since 1948. More importantly, Marx and the intellectuals influenced by him have been some of the most staunch opponents of religion and its institutions. Many scholars of the Soviet Union and Russia have treated the role of religion in Soviet or modern Russian politics as insignificant, due to the proclaimed anti-religious and atheist character of the Soviet regime and the treatment of the Russian Orthodox Church as a government agency in the post-Soviet period.24 In Israel, there is no formal separation between religious and state institutions. Nevertheless, the implementation of democratic rules in policy-making allows a high degree of political autonomy in the Muslim and Christian areas of the country. Hence, Israel represents a plurality of religious norms in its public sphere, the economic and administrative consequences of which will be analyzed in subsequent parts of this manuscript. What I am going to point out here is the non-obvious and a topic that has been treated insufficiently in the literature: the striking similarities between state-society dialectics in Marx and divine-human dialectics in religion, with particular focus on Eastern Orthodox theology.

Marx wrote extensively on religion both as his main focus of analysis (The Jewish Question) and in conjunction with the core of his political-economic interpretation of modern capitalism: the Economic and Philosophic Manuscripts of 1844. In his treatment of The Jewish Question, he argues that the preservation of religious identity puts the Jews in direct opposition to the Christian state they live in; Marx here understands religion as a political and economic identity that prevents people from political emancipation.25 He parallelizes Judaism with commercial power and Christianity with political power; because he treats Judaism as a critique to Christianity, he draws the parallel between Christianity and the legitimacy of political authority on the one hand, and Judaism and freedom of transactions and civil society on the other.26 However, Marx performs several methodological errors, which allow multiple criticisms against his theory. While he understands and analyzes the political and structural effects of religion – Christianity and Judaism for that matter – on state-society relations, he treats them from a hierarchical rather than a substantive standpoint. According to Marx, Christians as the dominant group control the state, and Jews are only allowed to operate at the level of civil society, which is again an extension of the state as a Christian structure; the only opportunity for

24 For an empirical study that shows the statistical insignificance of Eastern Orthodoxy when it comes to Russian authoritarianism in the 2000s, see Fish M. Steven. Democracy Derailed in Russia: The Failure of Open Politics, Cambridge University Press, 2005.


the emergence of real citizens is the destruction of the bond between Christianity and the state on the one hand, as well as between Judaism and civil society on the other.\textsuperscript{27}

What Marx mixes here is religion as an objectification mechanism for state and society that undermines political and certainly human emancipation and religion as a feudal institution that perpetuates categorical differences and injustice across the members of a society. I agree with Marx that states have religious origins. Nevertheless, it is clear that Marx ignores the internal structure of religious institutions such as the networks of the Roman Catholic Church or the monitoring capacity of the Lutheran Church of Germany over its local parishes. His treatment of the state and civil society as the Christian and Jewish components of public sphere implies that religious norms facilitate human alienation and thus objectification. Rather than observing religious norms as a set of fixed and dynamic elements that affect the distributive role of administrative agencies, their effectiveness, the commitments of politicians to the provision of public goods and the citizens’ material dependence on the state, he provides an ideal form of state without religion, a real secular state.

The antagonistic relation that is implied between Christians and Jews, the state and the civil society, is now juxtaposed in the relationship between the individual and God; in his Economic and Philosophic Manuscripts, Marx suggests that religion is yet another mode leading to the alienation of the worker from himself and thus to his objectification, because he belongs to God and not to himself.\textsuperscript{28} Nevertheless, Marx fails to see that the alternative he proposes is also defined by strong religious origins. Communism from a Marxist standpoint can be seen as a collectivist Reformation against the Protestant foundations of 19\textsuperscript{th} century capitalism. In that sense, what I propose here is a radically different reading of Marx through the lens of religion: abstinence from private property and approximation of absolute social justice are principles prevalent in the ideas of St. John the Chrysostom and Joseph Volotskii, the two most significant intellectuals of Greek and Russian Orthodoxy respectively. The common normative foundations of Eastern Orthodox collectivism and Marxism do not imply a strong anti-capitalist predisposition of Eastern Orthodoxy vis-à-vis capitalism. The identification of non-capitalist elements in the core of Eastern Orthodox theology and the structure of the monastery as the epicenter for the production of theological thought and spiritual authority in the Eastern Orthodox Church are in line with Marx’s definitions of economic regulation and political hierarchy in a property-less society.

Adorno in his lecture on negative dialectics argues that the Hegelian triple scheme of thesis, antithesis and synthesis can be achieved not only in its positive but also its negative form; he suggests that the negation of the negation is the anamnesis of violence, which is corrected by the expression of nonidentity and the difference between reason and

\textsuperscript{27} Ibid.
\textsuperscript{28} Ibid: 58-60.
the pursuit of materialist objectives. The logic of apophatic dialectics in Adorno reinforces my argument that Hesychast theology can be interpreted with the dialectical method and can suggest also from that perspective a critical lens for analytical Marxism. The dialectical scheme has as follows: 1. Inward looking and apophasis of the essence of God, 2. Interpersonal reflexivity and negation of sins through the society, 3. Theosis, i.e. union with God and purification from sins. I identify the continuum of apophatic dialectics that links the movement of Hesychasm in medieval Orthodox monastic ethics with Marx, Adorno and Marcuse and their theories on religion, economy and the state. While historical interpretation and the tracing of common grounds between 14th century Byzantium and 19th or 20th century Western Europe is not possible, the methodological core of economic collectivism reveals a consistent adherence to the dialectical interpretation of economy and society, and more concretely, the relationship of the human to the divine. This reality lends itself to three primary findings: 1. The differences between collectivism and individualism can be mapped onto the difference between metaphysical and profane states, 2. Collectivist rather than individualist state structures require a higher degree of centralization, and 3. Marxist political thought can trace its methodological roots in Byzantine theology rather than directly to the Pre-Socratic philosophers through Hegel.

In his analysis of Orthodox Marxism, Lukacs restates the definition of dialectical materialism: men’s consciousness is defined by their social existence and it is not the one that defines their existence. The emergence of a proletariat that is conscious of its class identity requires its socialization in the bourgeois society. What matters is the fulfillment of the historical process, its teleology through class revolution and the emergence of a universal community that embodies the ideals and represents the interests of all workers. The aggregation of individual interests into a collectivist model of action and state-building reveals the criteria for a proletarian community: 1. National or ethnic boundaries do not matter, when it comes to the realization of class consciousness, 2. Proletarian interests are expected to be transformed into universal interests for the consolidation of classless society, 3. The dialectical nature of the world development process guarantees the final victory of the working class over the bourgeoisie. If one substitutes class with religion, bourgeois interests with worldly sins and classless society with the Divine Kingdom, it becomes obvious that he can trace the fundamentals of Eastern Orthodox theology, as this has been condensed in the writings not only of St. John the Chrysostom, but also the Hesychast movement and their most prominent representative, Gregory Palamas, Metropolitan of Thessaloniki in the 14th century. As Mouzelis underscores, the core of Hesychasm as an intellectual movement in the Eastern Orthodox Church is shaped by apophatic (negative) theology; kenosis, the purification process that leads the individual

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to theosis, its union with God, implies the removal of all cognitive barriers – sins – and the preparation of the individual to connect with divine energies.\(^{32}\)

This apophatic nature of theosis assumes the absence of an instrumental relationship between the human and the divine and implies that interhuman relationships should be placed beyond material purposes and objectifying ends. The institutional influence of the Hesychasts on the administrative and political structures of the empire diffused their principles and organizational norms into the economy and bureaucracy of the late Byzantine state.\(^{33}\) Dostoevskii revived the Byzantine tradition of Hesychasm, already present in Old Russian literature, by stressing its three dimensions in his story “A Dream of a Ridiculous Man”: apophaticism, kenoticism, and iurodstvo.\(^{34}\) This is in line with what Mouzelis argues about the definitions of God – apophatic and cataphatic – and their meaning for the development of intersubjective relationships.\(^{35}\)

### 1.3 Instrumental Religions and Rational States in Max Weber

The interpretation of Eastern Orthodoxy as dialectical religion constitutes only the first pillar in my theory on religion and political economy. Max Weber provided the first complete theoretical grounds on world religions as economic systems and their impact on economic development. First, he defined religion as economic ethics; although he recognizes that economic ethics is also determined by other factors such as geographical and historical circumstances, he suggests that every religion corresponds to an ideal form of class organization and socio-economic structure.\(^{36}\) Suffering and happiness are seen as the two sides of divine enforcement; theodicy in the form of suffering is treated as God’s response to human injustice at the individual or the collective level.\(^{37}\) This is why the religious class emerged; in order to minimize the suffering of the people by delegating divine enforcement in the society. Weber draws parallels between the priest and the worker; the separation between the administrative and private spheres in the clerical profession is analogous to the separation of the worker from his product in a capitalist economy.\(^{38}\) The distinction between material rationalization under a patrimonial system and formal rationalization under a capitalist system is reflected in religious norms and

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\(^{33}\) Ibid.

\(^{34}\) Grillaert Nel. “Orthodoxy Regained: The Theological Subtext in Dostoevskij’s Dream of a Ridiculous Man”, *Russian Literature*, LXII (2007), II.


\(^{38}\) Ibid: 268.
organization and is linked with charisma in the former case and legalism in the latter.\textsuperscript{39} Thus, the law of religion is a critical indicator for the nature and structure of both advanced and backward political economies.

I propose that there can be no clear distinction between secular and ecclesiastical authority. Weber’s account on ancient Judaism could not have taken into account the Zionist movement and the role of religion in the formation of modern Israel. Moreover, in states with significant religious minorities as it is the case with Islam in Israel or Russia, local administrative agencies may isolate better the effect of religious norms on administrative form, capacity and objectives. I intend to extend Weberian rationality beyond the boundaries of Calvinist ethics and state secularism and correct for its omissions or oversimplifications. Religion is more structure than it is ethics. And structural forms in social and political institutions can predict collective decisions. If the state is composed of three groups, central elites, decentralized bureaucracy, and citizens, then religious norms can reflect the policy preferences of the majority among central elites, local bureaucracy, and the people as participants in the bureaucratic process. Moreover, at the macro-level religion can condition state formation and types of political regimes, beyond the traditional distinction between democracies and dictatorships. If religion is linked to social welfare expectations by the people, then the leader has an incentive to commit to their fulfillment in order to retain his authority. The dichotomy between democracies and dictatorships matters at first because under conditions of representative government there is a predefined replacement mechanism, in case that the head of state fails to fulfill his promise. Under conditions of oligarchy or dictatorship, the replacement mechanism is informal and defined by the members of the ruling elite. At the same time, religious norms allow for different levels of policy discretion and thus lead to multiple regulatory equilibria in local administrative agencies. Under conditions of imperfect information, policy discretion is lower and regulatory quality is higher compared to central government agencies. Local rather than central government principals have more incentives in monitoring the provision of public goods to citizens, because it is cheaper and better for their reputation, no matter whether they are elected or not.

The transition from legitimacy to legality facilitated the vertical rationalization of political authority and economic activity in Calvinist societies. As Gorski points out in his account on the political ethos of Frederick William I, the king’s conviction that the infusion of financial transactions and bureaucratic practice with solid disciplinary rules led to the emergence of an effective administrative and fiscal rationality, Prussian style.\textsuperscript{40}

When it comes to ancient Judaism, Max Weber identifies four key organizational elements: 1. Clan structure and 2. Increased military capacity, 3. Legal regulation of inter-

\textsuperscript{39} Ibid: 272-274.
clan disputes, and 4. Commercial activity based on revenues from agriculture. The ancient Hebrew commonwealth treated cities as its main unit of political and economic organization, following the Mediterranean paradigm of the Greek *polis*. Decentralized authority and aristocratic rule did not undermine the centrality of Jehovah, God of Promise, as foundation of the Hebrew state. The contractual relationship between God and his people provided to the identity and continuity of the state a divine guarantee and reinforced the monopoly of Jerusalem priests among Israelites. This historical God has both political and military functions; the Messianic mission of the state and the series of healing prophecies, protected by the royal institution, suggest a new form of religious rationality. The Levite Torah and more specifically Deuteronomy reflect the complementarity of two significant parallel processes: the rationalization-legalization of religious ethics on the one hand and the theologization of law on the other.

While apophatic definitions of God and *theosis* are in the core of Eastern Orthodoxy, cataphatic manifestations of God through prophecy and rational religious instruction define Judaism. The reign of King Jeroboam II indicated that the prophets were the spiritual protectors of the Jewish people from divine revenge; and that the localization of God in Jerusalem provided the basis for their political legitimacy and therefore intervention into state affairs. Jewish eschatology is fulfilled with the arrival of Messiah. Christian Apocalypse is completed with the Second Coming of Jesus Christ.

The differences in the sectarian organization of the Pharisees and the Essenes imply two inconclusive, yet radically different visions on the image of God and its reflections on bureaucracy. The Pharisees centered their definition of authority on the Rabbi’s charismatic leadership, underscored the distinction between material and spiritual goods and provided the resources for religious law enforcement in the public sphere. The Essenes were by nature pacifist, indifferent to any form of secular authority and focused on the idea of purity, both corporal and spiritual. Hence, the Pharisees fostered the rationalization of Judaism and transformed it to a moral critique vis-à-vis the state. If sin constitutes a breach of contractual obligation toward God, which inflicts exile and undermines the survival of the state, then military readiness and adherence to divine law are two essential preconditions for the perpetuation of Judaism as both a political and a religious structure. The Platonic elements in the philosophy and administrative organization of the Essenes prioritized the collective over the individual, a principle that was not foundational in Pharisean ethics. The latter treated individual punishment as

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44 Ibid: 259.
48 Ibid.
necessary for the avoidance of collective punishment by God and used religious norms much more as key policy instruments that would prevent state arbitrariness and increase collective welfare. While compliance rents are enjoyed collectively, punishment and reputation costs are carried individually by each member of the collective.

Byzantine caesaropapism means that the dogmatic, administrative and spiritual aspects of the Church are regulated at the highest level by the Emperor; the performance of religious functions and duties by the imperial institution confirms the notion that the Empire is the reflection of the Divine Kingdom on earth. Weber argues that the state co-opts the church and transforms it into a government institution. The tradeoff between the ruler and the church consists of the following exchange; taxes and subsistence means supplied to the state by the church as well as recognition by the state of the church’s right to define autonomously its internal organization and the moral disciplining of its subjects. Moreover, he points out that in medieval Orient Orthodox monasteries were central in international economic transactions and thus a significant source of tax revenue for the state; at the same time, he draws analogies between the Byzantine Empire and the Islamic Caliphate. The *waqf* institution in the Caliphate served as a revenue-increasing mechanism for the government in the same way that Byzantine monasteries accumulated taxable capital, which reinforced the state treasury. In the Weberian models of Orthodoxy and Islam, the state uses religion in order to maximize its income base, gain more legitimacy in the eyes of the masses, and expand its bureaucratic apparatus and thus its monitoring capacity over society. Thus, Weber treats religions as instrumental institutions that facilitate public policy objectives. Caesaropapist states – Christian or Muslim – are rational, in that sense, because they subordinate religious structures to their own material interests.

Individual ideas can be transformed to collective values through religion. Weber’s Protestant Ethic provides a developmental history of Western capitalism derived from the economic ethics of Reformation and its asceticism, as this is reflected in the private sector of 19th century Germany, Western Europe and the United States. If rationalism can be culturally bounded, then religious values can be synthesized into norms only when the last stage of this evolutionary process is complete: political domination or more simply put state formation or state consolidation. Thus, a set of instrumental religious values can lead to the emergence of different, yet rational states, through the provision of economic incentives to individuals. There are two first-order conclusions to be drawn from this. First, the dialectical method can provide an eloquent explanation of Weber’s theory on politics, religion and the economy. Second, Protestantism in its various forms –

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50 Ibid.

51 Ibid.

Lutheranism, Calvinism, Baptism, or Methodism – is a key explanatory factor of capitalist development and by extension the formation of rational-legal regimes, constrained by the rule of law.

What is interesting is that Weber does not produce a theory for nondemocratic, non-representative political economies. His analysis on Taoism, Confucianism, Hinduism, Buddhism, ancient Judaism and ancient Christianity is defined not by an intention to explain why Eastern religions do not lead to political and economic outcomes similar to the West; on the contrary, he provides four criteria that amplify the logic of his religious typology: 1. The difference between the world and the back- or hinterworld, 2. What hinterworld means and whether it is cosmocentric or theocentric, 3. Incentives for good deeds in current life (imminent reward or redemption in the hinterworld), and 4. The soteriology of the individual either through character discipline (Bildung) or mystic/ascetic self-perfection.53

Religion has been important in human history, because it has been the only convincing or partially convincing response to the mystery of life and death. If the current world is a preparation stage of finite horizon for the hinterworld, whose horizon is infinite, then religion facilitates the transition from one stage to the other. This is why bureaucracy as religious structure matters. Because the state has to reflect the values of the hinterworld in order to convince its citizens about the ethics of its economic and political mission in the current world. Weber suggests that there are three types of bureaucratic domination: 1. Public finance and technical expertise, 2. Bureaucratic monitoring and 3. Political control of the bureaucracy.54 Capitalism and modern finance are more likely to thrive under the first two types of bureaucratic domination and less likely under the third. This is why the question of correspondence between political regimes, agency structures, and religious norms is important. Because the three main monotheistic religions of the East - Eastern Orthodoxy, Judaism and Islam – provide not only the guidelines for the spiritual relationship between the human and the divine, but also the institutional framework for the relationship of citizens with their bureaucracy, of political leaders with their citizen-clients.

1.4 A Critique of the Durkheimian Model

Definitions of the sacred and the profane imply a critical distinction between religious and secular modes of collective life. Émile Durkheim in his Elementary Forms of Religious Life: The Totemic System in Australia presents his theory on the microfoundations of social organization and treats religion as series of identity-advancing collective representations of beliefs and values.55 The very use of ethnographic method for the interpretation of religious phenomena in non-advanced and more specifically in primitive

53 Ibid: 92-93.
54 Ibid: 348-354.
societies reveals Durkheim’s originalist predisposition; religion is not defined only negatively in terms of prohibitions and moral threats, but also positively in terms of rituals that preserve the significance and continuity of the cult.\(^{56}\) The binary nature of the sacred makes relevant a distinction between cognitive areas of purity and impurity in society. Durkheim is convinced that there are different forms of correspondence between the sacred and the profane, as his perceived duality of human nature suggests. The temporal and spatial analysis of the sacred and the profane amplifies the separation between the two; liturgical rites cannot coexist with profane customs, and this separation has to also be physical and symbolic.\(^{57}\) The social world depends equally on these two dimensions, according to Durkheim; contrary to his definition of the sacred, he is less clear about the profane. The latter is basically the residual space left by the sacred; its definition is negative.

My review of Durkheim criticizes his distinction between the sacred and the profane, following the line of critics against the separability of the sacred from the profane, I am convinced that it is not possible to treat the profane as completely separable from the sacred, a socio-political space of finite horizon, devoid of any concrete rules of divine origin. The use of symbolic means for the achievement of functionalist outcomes makes the dichotomy between the sacred and the profane even more problematic. Durkheim’s theory of separability between the sacred and the profane corresponds to a meta-Christian view of religion, which reflects the duality in the nature of Jesus Christ and the heretic controversies on the superiority of his divine or human nature. If society has sacred origins and the existence of profane life is an outcome of compromise between normative priors and material interests shaping the human condition, then 19th century French secularism can be clearly seen through the prism of this separability. According to Durkheim, secularism is not opposing religion, but simply draws the lines between the sacred and the profane and thus allows religion to develop freely and independently within its own temporal, spatial and material constraints. Moreover, he justifies the primacy of the sacred over the profane by arguing that the notion of sacred is not limited only to ecclesiastical or religious practices. He claims that religion and science have a sequential rather than contradictory relationship; the treatment of society as sacred and the identification of isomorphic patterns between religious practice and social interaction show that religion is not a legitimacy mechanism for a hierarchical God but a set of nonhierarchical rules that facilitates horizontal communities.\(^{58}\) Society from an evolutionary standpoint is a projection of religious norms; the difference between world religions and the practice of religion in Africa is that in the former case the notion of the sacred is defined by saints and gods, where in the latter by religious community development.\(^{59}\) The state is certainly not Durkheim’s locus of analysis. Nevertheless, it

\(^{56}\) Ibid: 86.
\(^{57}\) Ibid: 141.
\(^{59}\) Ibid: 203-207.
may be underscored that the state *per se* can be categorized as a higher-order form of
political community, an advanced structure that includes the values and norms of religion.

Becker suggests that the notion of the profane is wider than the notion of the
secular; the criterion for the distinction between sacred and secular societies is the degree
of permeability of any society’s value-system. He assumes that value-systems in sacred
societies are static, whereas in secular societies dynamic. Hence, secular societies were
societies that were initially sacred but changed. The notion of secular implies a
determinate opposition against religious institutions, and is part of the broader profane
space. His reference to *Summa Theologica* of Thomas Aquinas in order to establish religious
continuity through prescribed norms reveals a simplistic, yet mainstream notion of
religion in social development. Religion is observed as an establishment institution, a
group of disincentives to modernization and social openness. It is clear that the
Durkheimian model considers religion as a structure only within the spatial and
functional boundaries of the sacred. The distinction between secular and sacred societies
roughly corresponds to the political economy distinction between development and
underdevelopment. While religion shapes the roots of any social system, its definition as
sacred or secular depends on its functional distance from those original religious norms
that brought it into existence.

To avoid the danger of entering into a counterproductive enterprise of definitions
and sociological controversies, which are not the focus of this manuscript, it is essential to
point out that religion in Durkheim, when it comes to the state, is ideologically neutral,
with a normative core and positive extensions. The body of religious community is formed
through ceremonial processes and the accumulation of private cults into a commonly
accepted collective; religion is the formative element of social relationships, and provides a
basis for the common understanding of situations and things. Exactly this promotion of
social stability and solidarity is what makes religion in the Durkheimian model rational;
societies are rational because they have religious roots. Durkheim treats that as a reality
rather than as a normative preference. This is why he affirms that society is a moral
community, whose existence is determined by the transcendent reality of the sacred and
the everyday reality of the profane. Hence, there is, according to Durkheim, a
hierarchical relationship between the sacred and the profane. It is the same relationship
between the body and the soul in Christianity. The soul is hierarchically superior to the
body, yet the body is essential for the materialization of the soul’s higher ends. Similarly,
there can be no society without elements of sacrality, yet the profane is critical for the

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fulfillment of the sacred. The distinction between hierarchical and nonhierarchical religions, i.e. between religions, whose influence has been limited by the expansion of the profane and religions, whose influence has been advanced or even created because of the existence or expansion of the profane.

What I suggest is that it is actually impossible to argue for the complete separability of the sacred and the profane without actually expressing a favor for a religion that is not incumbent in any society. Durkheim is an intellectual descendant of the French Revolution and in that sense his analysis of religion as a set of moral rules that inaugurate the process of socio-economic development is purely Protestant. The dogmatic differences between Catholicism and Protestantism aside, what differentiates religions in post-primitive societies is less symbolism and more politics. What I mean by politics is the provision of public goods at central and local levels, agendas and ideologies of political parties, intergovernmental relations, federalism and principal-agent relationships in the bureaucracy. If I substitute the notion of the profane with the notion of politics, then the contradictory nature of the Durkheimian model becomes obvious. While Durkheim argues for the significance of religion as the main formative element of society, his binary model suggests a normative statement against it. Religion is of positive influence on society, only when it poses a moral paradigm for the state, the privileged area of the profane. Anything beyond that undermines the purpose of religion, because it desacralizes it. In the Durkheimian world, religion needs to maintain its institutional autonomy from the state for the benefit of both; an idea that draws direct analogies between secularism and Protestantism and defines the former as a version of the latter. The break of Catholic rule in Europe had to go along with the confinement of church institutions within the Durkheimian boundaries of the sacred.

1.5 Synthetic Observations

The manuscript argues that there are strong linkages between religion, bureaucratic organization, and political regimes. Before providing the formal analysis and empirical evidence to back those linkages, I would like to engage them in a short theoretic discussion here. In this chapter, I discussed the views of Lipset and Rokkan, Marx, Lukacs, Marcuse, Adorno, Weber, and Durkheim. I also provided some initial thoughts on the views to be developed in the following chapter of this manuscript. The choice of these thinkers relates to the three grand themes that I intend to discuss. First, I analyze the linkage between religion and political regimes in terms of social welfare expectations by the electorate, surveillance incentives and collectivist distribution by bureaucrats. Particularly when it comes to the Russian case, if the monastery constitutes the core of Orthodoxy as a paradigmatic administrative structure, then subnational government is certainly the microcosm of the Soviet and post-Soviet administrative state. At the same time, Marxian political economy is treated as the necessary linkage between the Russian administrative agency of the 21st century and the Byzantine monastery of the 11th century.
The apophatic definitions of God in the philosophy of Gregory Palamas and the Hesychast movement are linked with Marxist dialectics and Adorno’s cognitive definition of mimesis as a form of self-preservation and thus autonomy.64

Second, religious traditions shape the administrative structures of local or regional communities. In Russia, whose federal structures render the third or even the fourth level of government (municipality and city district respectively) devoid of sufficient financial resources, oblast administrations are much more important than municipal or district administrations in decision-making autonomy and mimesis of religious collectives. In Israel, a centralized government characterized by a Jewish majority and an Arab minority, Jewish and particularly Arab local authorities are the only administrative units, which are likely to reflect the religious values of their citizens and preserve distinctive rules of decision-making when it comes to the distribution of public goods. Different levels of policy discretion, administrative monitoring, and centralization correspond to different sets of religious norms adopted by citizens and bureaucrats.

The dichotomy between homogenous and diverse societies is very interesting here. The Russian cities that I have covered in my fieldwork – Lipetsk, Krasnodar, Sochi, Tomsk and Novosibirsk – are all regional capitals with the exception of Sochi. Moreover, all these cities are Eastern Orthodox by majority and are not defined from a political or an economic standpoint by the existence of a major ethnic or religious minority. Of course, the Armenian and Georgian communities are pretty strong in Krasnodar and Sochi, but their Oriental and Eastern Orthodox traditions respectively did not create much of a difference for the purpose of my study. Lipetsk embodies the heartland of Eastern Orthodox Slavic peasantry as this has been depicted in the novels of Dostoevskii, Chekhov and Tolstoi. Krasnodar reflects the Russian and Soviet versions of Caucasus cosmopolitanism, and Sochi the model of economic development adopted by Putin’s regime. Tomsk and Novosibirsk, the Siberian equivalents of Saint Petersburg and Moscow, present the future of Russia in terms of technology, innovation and administrative development.

Netanya in Israel’s central district is the urban expression of Jewish cosmopolitanism inside the boundaries of the Jewish state and is home to all major innovation and investment initiatives originating from the San Francisco Bay Area and other technology hubs of the world. Nazareth, the largest Arab city in Israel and one of the holiest places in Christianity, is a mixed urban space composed of two thirds of Muslims and one third of Christians, primarily Eastern Orthodox. In that sense, it is a unique representation of Israel’s Arab sector, both from an administrative and a cultural perspective.

Are some religions more collectivist than others? And thus are their respective administrative equivalents more distributive or simply put more efficient in the provision

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of local public goods? It is obvious that I do not treat religion as a social cleavage or secularism as a valid or even existing form of state organization. The formal separation between the Church and the State in 19th century France or the abolition of the Caliphate in Turkey by Ataturk in 1923 did not eliminate the administrative traditions of Catholicism and Sunni Islam in French and Turkish societies respectively. This perpetuation of those norms is much more evident at the local rather than the central level of government for two reasons: 1. Local governments capture religious diversity whereas central governments capture only the religious preferences of the majority, 2. It is much easier to monitor state capacity and effectiveness in the provision of public goods at the local rather than the central level.

In this manuscript, I fill a gap in Max Weber’s sociology of religion by analyzing Eastern Orthodoxy, Judaism and Sunni Islam as state cultures. If the historical divide between East and West, Islam and Protestantism, is a divide between collectivist bureaucrats and individualist entrepreneurs, then I argue that Judaism is a median religion, while Eastern Orthodoxy and Roman Catholicism closer to Islam and Protestantism respectively. There is an ordinal hierarchy when it comes to religious degrees of collectivism: Islam > Eastern Orthodoxy > Judaism > Roman Catholicism > Protestantism. Thus, the causal mechanism that I suggest has the following form: Religious norms → citizen demand for public goods → the leader’s modernization strategy → regime outcome. Moreover, I propose multiple regime outcomes as equilibrium solutions: public sector (Byzantine) oligarchy in Eastern Orthodoxy, liberal or social democracy in Protestantism, state corporatism or clientelism in Roman Catholicism, entrepreneurial aristocracy in Islam, and fragmented democracy in Judaism. At this point, it would be necessary to restate the arguments above and provide a roadmap of the manuscript to facilitate the work of my readers and prepare for the upcoming essays.

1.6 Conclusions

At the beginning of the introduction, I made clear my intention to analyze the state as a religious icon and therefore evaluate the provision of local public goods from both normative and positive standpoints. Russian Orthodoxy as state culture of the Russian Federation, Judaism, Sunni Islam, Greek Orthodoxy and Eastern Catholicism as composite state cultures of Israel form the grounds of my analysis. In that sense, state capacity is a composite function not only of objective measures such as policy discretion, budgetary autonomy and quality of public goods, but also of subjective measures such as distributive ethics, hierarchical preferences and administrative altruism. This manuscript does not intend to prove this claim for all possible cases in the world. What it tries to indicate is that religion matters for state-society relations and administrative capacity as a set of ethical rules and structural choices that shape the image and the functions of the state. Russia and Israel are ideal cases in that respect, because they entered world history through their respective religions or in opposition to them.
Chapter 2

Religious Origins of Democracies and Dictatorships

2.1 Religious Typologies of Transition and Modernization

How does religion influence the economic structure of political regimes? Can distinct religious traditions condition differential paths to modernization? Are some religions more conducive to authoritarianism than others? And what are the religious determinants, if any, of political transitions? In this paper, I argue that religion is a core element in the analysis of political and economic transitions in democracies and dictatorships. I model religion as a contract between the leader and his selectorate, where the leader commits to the provision of threshold public goods, and the selectorate extends his office tenure. The selectorate can be either an electoral college in democracies or an elite body in dictatorships. The presidential administration of the Kremlin or the presidium of the Chinese Communist Party are examples of the latter. If modernization is an economic transition from backwardness to industrial market structure, then its relationship to political transition from one form of government to another can take the following three forms: 1. It can be identical to regime change, 2. It can facilitate transition to democracy or dictatorship, and 3. It can preserve the status quo. At the same time, religion matters for two reasons: 1. It exogenously defines the multidimensional public goods threshold that the citizens impose on the leader, and 2. It is linked to a specific model of economic and administrative development, which is different per religious tradition, which is a majority within the boundaries of any administrative state.

I follow Weber’s Protestant Ethic that religious norms shape economic behavior, rather than the other way round; rational organization of free labor and regularized investment of capital condition the emergence of a capitalist enterprise. Thus, according to Weber, Protestant asceticism is more inclined to lead to higher degrees of productivity and economic growth. Modernization theory analyzes the impact of industrialization on state formation and regime change. Lipset argues that economic development and democratization are inherently related; there is no industrialization without a shift to more representative forms of government. Rostow suggests that states transition to industrial market structures by developing a leading industrial sector; this condition generates a spillover effect that modernizes politically and economically the whole society. Unlike

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66 Ibid.
the linear approaches of Rostow and Lipset, Gerschenkron proposes that the later the transition from backwardness to industrial market structure, the higher the demand for capital; moreover, the later the timing of industrial transformation, the more important is the role of the state in generating the capital required.69

Religious norms have a direct impact on the provision of public goods. The existence of different public goods thresholds create differentiated conditions for regime stability and regime change. Marshall and Bottomore refer to social rights as a necessary precondition for citizenship.70 Moore argues that an alliance between strong landlords and the bourgeoisie against the peasants leads to fascism; an alliance between a strong bourgeoisie and the peasants against the landed elites leads to democracy; and an alliance between strong peasants and the bourgeoisie against the landed elites leads to communism.71 His neo-Marxian approach indicates that class alliances, conflict and historical processes matter for the explanation of regime outcomes.72 Luebbert analyzes the origins of the three regime types that emerged in Western Europe during the interwar period; liberal democracy, social democracy and fascism.73 These regime types form different responses to demands articulated by the working class; in countries where peasants allied with the middle class, fascism emerged.74 Leadership initiatives did not play any role in the emergence of liberal democracy, social democracy and fascism.75 In my argument, leadership matters and religious norms constrain the set of decision strategies for the government. The leader is cognizant of the religious norms that the majority shares and delivers public goods in order to preserve his post. There is no significant difference between backwardness and industrial market structure with respect to the government’s formal commitment to public goods provision. Inglehart and Baker indicate that traditional values persist despite the broad cultural consequences of industrialization in all modern societies.76 Instead of looking at the religious norms held by popular majorities, they take states as their main unit of analysis and conclude that state structures rather than religious denominations shape the direction of traditional values in the society.77

I define economic collectivism as commitment to collective welfare. This is why I put religious traditions on the collectivism-individualism continuum. Differential degrees

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72 Ibid.
74 Ibid.
75 Ibid.
77 Ibid.
of economic collectivism lead to parallel tracks of modernization and thus to different institutional arrangements. Islam is considered to be the most collectivist of the five religious traditions presented in my chapter; Muslim leaders face the highest level of distributive obligations vis-à-vis their political audience. If collective welfare is treated as a constraint to modernization, then it becomes obvious why modernization does not generate institutional convergence across religious boundaries. A Protestant leader is more likely to maximize his personal and political rents by advancing modernization. Modernization theory holds in Protestantism, because leaders are punished only when they fail to treat collective welfare as second order condition of civil rights and personal profit. A Roman Catholic leader is more likely to last in power, only if he abides by the social contract he had agreed to with the business sector and the working classes. Tripartite economic structures and their preservation are keys to the reelection of Roman Catholic leaders or the maintenance of their office tenure. A Jewish leader is faced with a finite term horizon, when he is unable to enforce individual punishment for the loss of collective compliance rents, because he exposes his people to divine punishment. An Eastern Orthodox leader loses his office, when he treats the public sector and its bureaucracy as pillars for the generation of his own private wealth or the wealth of a particular class. A Muslim leader undermines his political horizon, when he violates the principles of religious law. There is an ordinal hierarchy when it comes to religious degrees of collectivism: Islam > Eastern Orthodoxy > Judaism > Catholicism > Protestantism.

Lipset compares US with Canada to suggest that when the dominant religion in a country is more collectivist, the size of government is likely to be bigger.78 This is the reason why Canada has a bigger government than the United States.79 Fish argues that Islam is conducive to authoritarianism, because it oppresses women and undermines their human rights.80 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.81 Huntington in the Political Order of Changing Societies suggests that the degree of government defines the level of political order in a given society.82 O’Donnell argues that advanced industrialization increases the likelihood of bureaucratic authoritarianism and inequality; he suggests that transitions from one regime type to another depend on the socio-political aspects of industrialization and elite- as well as mass-level changes.83 Chehabi and Linz provide a crucial distinction

79 Ibid.
82 Huntington S.P. Political Order in Changing Societies, Yale University Press, 1968.
between patrimonialism and sultanism; the latter is treated as an extreme form of the former and is based on personal traits rather than ideology or the Weberian charisma.84

Roland in his analysis of economic transitions from socialism to capitalism argues that the tasks of transition are the following: 1. Liberalization, development of markets, and allocative shifts, 2. Macroeconomic stabilization, 3. Privatization and 4. Introduction of new institutions (fiscal administration, legal code and judicial system, central bank, financial markets).85 His economic theory of transitions is based on two observations: 1. Complementarities between reforms and 2. Political constraints on reforms, ex ante and ex post.86 He argues that gradualism is more efficient than shock therapy because it creates different groups of winners and losers in period 1 and period 2 of reform implementation; this generates different pools of political support in each of the two periods.87 That way, the reform benefits are higher than the reversal costs and therefore there is no return to the status quo ante; reversal costs increase the ex-ante constraints on reform but reduce the ex-post constraints.88 As Roland points out, Output fall and problematic law enforcement are two key economic characteristics of the transition period.89 He prefers gradualism over Bing Bang for reform success; reform can pass, if one of the following strategies is implemented: 1. Suggest reform packages that give compensating transfers to losers 2. Introduce partial reforms 3. Create institutions credibly committed to compensating transfers and 4. Wait for a deterioration of the status quo, which will make the reform more attractive.90

Fish observes that Russia has transitioned from communism to authoritarianism without ever becoming a real democracy.91 He argues that the failure to democratize is due to defective economic liberalization, resource dependence, statism in economic policy, super-presidentialism, and weakness of the Duma.92 His distinction between open and closed regimes relies on low regime legitimacy given the personalization of Russian politics, lack of pluralism, corruption and administrative centralization.93 On a more neutral take on the merits and risks of democratization, Przeworski defines democracy as a political system where parties may lose elections under conditions of political competition and uncertainty of electoral outcome.94 He considers informational symmetry

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86 Ibid.
87 Ibid.
88 Ibid.
89 Ibid.
90 Ibid.
92 Ibid.
93 Ibid.
when it comes to the distribution of political resources as a key component for a successful democratization; this can only be possible when no socio-economic group is able to bargain from a position of institutional authority due to an informational advantage. Przeworski and Limongi along with Przeworski, Alvarez, Cheibub and Limongi suggest that, although the correlation between development and democracy is random, countries with higher levels of GDP per capita are more likely to be democratic, when democratic transition occurs. They find that the probability of authoritarian collapse, and thus of democratic transition increases only until it reaches a level of 6,000 USD per capita income; after that, authoritarian regimes are more likely to survive.

Desai et al. suggest that an autocrat cares about maintaining popular support for his policies and therefore he will offer the least costly bundle of welfare and political benefits to the people; the bundle of real political liberalization will always be more costly for him. They correctly 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 a decisive factor for authoritarian survival. In any case, legitimacy is not just a factor defining how much an authoritarian government will spend to secure public support; beyond material incentives, people legitimize governments that abide by specific cultural values, as these are reflected in the multi-level provision of public goods. I believe that public sector wages is an outdated proxy for measuring the purchase of public support by nondemocratic regimes. The latter’s heavily bureaucratized structure and multitask organizational subsystems require a much more complex level of analysis. Moreover, Desai et al. are wrong, when they say that an increase in a regime’s repressive capacity reduces the provision of welfare benefits and political rights; on the contrary, it allows the government to target more freely multiple social groups to consolidate this favorable for it equilibrium. This is what sets my definitions of public goods authoritarianism: the inclusion of cultural beliefs in the authoritarian bargain that may reduce the marginal cost of distribution even under conditions of inelastic labor supply and be conducive rather than opposing to regime survival.

My mechanism suggests that religious norms set the public goods threshold which is imposed on the leader by the majority. The leader can fulfill the threshold and stay in power or be unable to do so and be ousted by the selectorate. Modernization occurs either in order to prevent political transition or in order to consolidate it after its initial success.

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95 Ibid.
97 Ibid.
99 Ibid.
100 Ibid.
101 Ibid.
The regime outcome depends on the occurrence of modernization and the ability of the leader to fulfill the threshold. Under conditions of modernization, I propose multiple regime outcomes as equilibrium solutions such as public sector (Byzantine) oligarchy in Orthodoxy, liberal or social democracy in Protestantism, state corporatism or clientelism in Catholicism, entrepreneurial aristocracy in Islam, and fragmented democracy in Judaism.

The following 5-by-2 matrix is indicative of my scheme on the interaction between religion and economic development and their sequential effect on political regimes:

<table>
<thead>
<tr>
<th>Religion</th>
<th>Development → Backwardness</th>
<th>Economic Transition To:</th>
<th>Political Transition To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protestantism</td>
<td>Constrained Leadership</td>
<td>Liberal/Social Democracy</td>
<td>Representative Democracy</td>
</tr>
<tr>
<td>Catholicism</td>
<td>Unconstrained Kingship</td>
<td>State Corporatism/Clientelism</td>
<td>Interest-group Democracy or Fascism</td>
</tr>
<tr>
<td>Judaism</td>
<td>Stateless Cosmopolitanism</td>
<td>Regulated Capitalism</td>
<td>Fragmented or Religious Democracy</td>
</tr>
<tr>
<td>Orthodoxy</td>
<td>Bureaucratic Imperialism</td>
<td>Byzantine Oligarchy</td>
<td>Clan Democracy or Communism or Surveillance Authoritarianism</td>
</tr>
<tr>
<td>Islam</td>
<td>Normative Imperialism</td>
<td>Entrepreneurial Aristocracy</td>
<td>Islamic Plurality or Theocracy or Security Authoritarianism</td>
</tr>
</tbody>
</table>

In constrained leadership, the head of state is constrained by a council of nobles or a judicial apparatus. The Protestant principles of self-help and hard work apply in an economic system where the private sector is relatively independent from the state and the government is committed to a minimum level of social welfare (18th century British Empire, Bismarckian Germany).102

As liberal/social democracy is defined a Protestant market economy, where regular elections, extensive civil rights, and a grown private sector are complemented by social welfare toward regime endurance (United States, United Kingdom, Sweden, Denmark, Norway, Finland, post-war Germany, Netherlands). The dichotomy between liberal and social democracy depends on the balance between social welfare and civil rights in both constitutional design and public policy. Representative democracy is the political equivalent of liberal or social democracy. Protestant countries are the least likely to transition to a nondemocratic form of government.

Unconstrained kingship implies the existence of a royal institution that is not subject to any effective checks and balances; the provision of social welfare has explicit divine and/or administrative origins and reflects the moral prerogatives of the Roman Catholic Church (royal Spain, Austrian Empire, Ancien Regime).

State corporatism/clientelism includes competitive or quasi-competitive elections and the protection of a minimum of civil rights. Although social welfare provisions reflect Roman Catholic norms, they are aimed more toward electoral rents for the incumbent rather than toleration of administrative arbitrariness (Brazil, Spain, Italy, France, Belgium,

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Interest-group democracy and fascism are treated as the democratic and authoritarian mirrors of state corporatism/clientelism.

Bureaucratic imperialism implies that the state is committed to territorial and economic expansion through administrative means; there is a cooptation of the religious institutions by the state. Religious conversion is not necessary, although desirable (Byzantine Empire, Muscovy, Russian Empire).

Byzantine oligarchy entails an oversized public sector and either nominal or real electoral rules for the appointment of governments. The state regulates the economy and the private sector is both institutionally and materially dependent on the government. A high threshold for public goods provision continues to reflect the Eastern Orthodox norms of welfare statism and social protection at the expense of transparency and lack of corruption (Soviet Union, Russia, Ukraine, Bulgaria, Romania, Serbia, Greece). There is a multiplicity of political regime types that can be attached to Byzantine oligarchy: communism, surveillance authoritarianism and clan democracy.

Stateless cosmopolitanism designates the unique situation of Jews in East-Central Europe and the Near East. Absence of formal state structures is combined with solid community development and professional activity in the private sector. Exclusion from the wider public sector constrained conversion to the majority’s religion and facilitated the preservation of social values.

Regulated capitalism relates to the economic modernization that followed the success of the Zionist movement and the emergence of the state of Israel. Government intervention is more intensive than in traditional welfare statist economies of Western Europe and less intensive than under Soviet central planning. Trade protection, discriminatory taxation and capital market regulation have been some of the basic elements of Israeli economy that materialized the socialist views of its founding fathers and reflected the need for the political consolidation of the Jewish state in the territories of former British Palestine.

Normative imperialism implies a conflation of religious values and the state with the objective of territorial and economic expansion through administrative means. Hence, the head of State is also the highest moral authority in the government; the provision of social services and public goods occurs more through corporate channels than the bureaucracy per se. Social welfare manifests the Islamic norms of solidarity and protection of the poor against the injustices committed by the rich (Pahlavi Iran, Safavid Persia, Ottoman Empire).

Entrepreneurial aristocracy implies the prevalence of corporate elites, in the public or the private sector, which are appointed directly or indirectly by the government; enterprises fulfill public functions and commit to the provision of social services contributing to regime endurance (Islamic Iran, modern Turkey, Egypt, Indonesia, Malaysia). Security authoritarianism, theocracy and Islamic plurality are the regime types

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104 Ibid.
corresponding to the political economy of entrepreneurial aristocracy. By Islamic plurality I mean a representative form of government, which meets the basic procedural criteria for democracy, it stresses the significance of religious law in public affairs, which usually comes at the expense of non-Muslim minorities.

The transition from a backward to an advanced economic system is inherently linked to political transition. Acemoglu and Robinson make the argument that democratic consolidation occurs when distributive policies are effective and there is an absence of religious and ethnic polarization in society.\textsuperscript{105} Political learning matters in the formation of democratic or authoritarian consciousness; as Bermeo points out, political learning can lead to a change in tactics.\textsuperscript{106} Moreover, differential paths in class relations and economic development generate different types of authoritarian regimes; the influence of religious traditions shapes civil society regulation by the state and thus conditions different outcomes in state-society relations under authoritarianism.\textsuperscript{107} Skocpol in her critique of Moore’s \textit{Social Origins} suggests that the growth of urban-based commodity markets was the main impulse that provided the grounds for the bourgeois revolutions of the 18\textsuperscript{th} and 19\textsuperscript{th} centuries.\textsuperscript{108} The distinction between labor-repressive and market-defined commercialized agriculture has been also key – according to Skocpol – in the emergence of different regime types in \textit{Social Origins}; fascist modernization was facilitated by the unfavorable conditions that labor-repressive agriculture created for democracy.\textsuperscript{109} Hence, revolutionary activity can take place both in the economy and the state with different sequencing patterns. Moore and Skocpol imply that political regimes reflect economic transformations conditional on exogenous shocks. My theory originates from that logic but it has a different focus. Rather than treating cross-class alliances as the unique \textit{ex ante} determinant of regime equilibria in the post-shock period, I suggest that demand for public goods varies across religious traditions and therefore conditions different sets of regime equilibria.

The tradeoff between collective welfare and individual profit is crucial in my analysis of economic and political equilibria. The treatment of religious collectives as economic systems with differential levels of welfare provision is essential for explaining the effect of religion on political and economic transitions. If Orthodoxy and Islam suggest the soft and hard versions of collectivism, and Judaism the median religion on the collectivism-individualism axis, then it is reasonable to analyze the mechanisms of welfare provision in the Orthodox, Islamic and Jewish collectives, which are the monastery, the tariqa and the kibbutz respectively. The internal dynamics of communities serve as

\textsuperscript{107} Ibid: 287.
\textsuperscript{109} Ibid: 8.
prototypes for the transformation of religious values into resource distribution. The differential levels of 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 multiplicity of economic systems and their correspondences in the set of political regimes imply different combinations of these two parameters. The political economy of religious collectives makes the study of religion relevant not only for society but also for the state and its economy. The existence of hierarchical and networked religions can consistently explain correspondences between religious traditions, economic systems and political regimes.

The paper is structured as follows. In section 2, I discuss the political economy of religious collectives concentrating in the Eastern Orthodox monastery, the Jewish kibbutz and the Muslim tariqa. In section 3, I present and solve a model of modernization and transition under the dominance of different religious values. Conclusions are reached in section 4.

2.2 The Political Economy of Religious Collectives

2.2.1 The Byzantine and Russian Orthodox Monastery

The influence of religious norms on political regimes can be traced in multiple ways: through the interaction between religious and secular legal orders, the operation of bureaucratic institutions by religious values and practices, and the reflection of the religious community as an economic system on state-society relations. In this chapter, I focus on the latter path. First, I define the religious collective as an economic system in Eastern Orthodoxy, Judaism and Islam. Second, I identify the linkages between religious collectivism and political economy in countries with an Orthodox, Jewish and Muslim majorities. It is important to keep in mind that Byzantine monasticism has been instrumental in consolidating the victory of iconophiles against iconoclasts and provide 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. 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. 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.

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The treatment of Eucharist as the core of Orthodox communitarian life and linkage between monks and laymen, the sacred and the profane.\textsuperscript{112}

The development of monasticism in the aftermath of iconoclasm consolidated the incorporation of ecclesiastical principles into state structures.\textsuperscript{113} 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.\textsuperscript{114} 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 same pattern of monastic development continued also in Kievan Rus and Muscovy. The emergence of the Trinity-Sergius monastery in the outskirts of Moscow during the second half of 14\textsuperscript{th} 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

\textsuperscript{112} Ibid: 197-199 and 203-204.
\textsuperscript{114} Ibid.
of community as reflection of the Divine Kingdom onto Russian society. 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 Trinity’s property and customs privileges were secured by 149 immunities charters between 1533 and 1605. Ivan’s revealed preference for 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. Moreover, the origin of Trinity’s monks from the class of the boyars and local landowners, particularly in the third generation and onward, reflected the monastery’s political influence and contributed immensely to the accumulation of land property both from the state and the brothers themselves, who as monks gave up all their individual property rights and transferred their lands to the Trinity. The rise of the Trinity was conditioned by the emergence of an internal administrative hierarchy that mapped the social origins of monks (38 percent by the middle of the 16th century was born into a landowning family). Thus, the hierarchy of the monastery was set up as follows: 1. Abbot, 2. Cellarer, 3. Treasurer, and 4. Bailiffs and fiscal officers. 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 factors for modeling the Eastern Orthodox collective.

The influence of monastic hierarchies on state bureaucracies becomes evident when one looks more closely at the Byzantine experience and 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. Both institutions enjoyed the inverse monopolies: 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

117 Ibid: 89-91.
119 Ibid.
120 Ibid.
term *epistemonarches* is instrumental in understanding the elements of this bargaining. 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. 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. 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).

Furthermore, the essence 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. 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.

These two pillars of Hesychast theology shaped the course of Russian orthodoxy in the early modern stages of its development. While Nil Sorkii 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 Volotskii understood the monastic community as a worldly institution that could perform state or quasi-state functions. As it has been the

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122 Ibid.

123 Ibid.


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. 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 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 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. 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. Hence, Eastern Orthodoxy can be defined as a system of political and economic 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 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

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of Orthodox values would culminate in the victory of the latter in the Russian Revolution and the consolidation of the Soviet state.

2.2.2 The Israeli Kibbutz

Modeling the kibbutz as a collectivist economic system is not new in political economy and social theory. The image of the Halutz (pioneer) necessitated indifference to wages, material benefits, socio-economic status and political power. 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. The introduction of these three principles into Israeli society occurred in multiple forms. First, it became the basis for the creation and dissemination of kibbutzim and moshavim; the former were in the forefront of religiously defined organization. The structure of labor institutions such as the General Federation of Labor (Histadrut) was also influenced by pioneer principles. Contrary to the Russian Orthodox monastery, where the hierarchical position of the hegumen embodies the institutional subordination of the individual to the collective, in moshavim and particularly kibbutzim individual survival is complementary rather than substitute to collective welfare. The Nahal Program was designed by the Israeli government in order to facilitate autarky and self-subsistence in Jewish communities in Israel and the developing world, while serving broader developmental goals, and is defined by this logic. The centrality of the army, the complementarity of military and agricultural training, and the existence of flexible structures for organization and control suggested the significant role of the armed forces for developmental effectiveness.

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. Exit from the kibbutz, particularly by younger people, is treated as a proof of the flawed system of incentives that defines its function. Hierarchical monitoring and control, complementarity of individual and collective interests and information-sharing can model kibbutz productivity as a moral hazard.

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132 Ibid.
133 Ibid: 119-121.
134 Ibid: 121.
problem and thus eliminate some of its central planning elements that force some of its most competent members to exit.\textsuperscript{139} In his model of the Israeli kibbutz, Abramitzky identifies the trade-off between redistribution and voluntary participation; more productive individuals are less incentivized to stay than less productive ones.\textsuperscript{140} And higher equality tends to provide more insurance to all kibbutz members at the expense of the more productive ones.\textsuperscript{141} 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.\textsuperscript{142} 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.\textsuperscript{143} While the allocation of resources is centralized, the option of exit can make the kibbutz the best of both world, 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.\textsuperscript{144} Therefore, the kibbutz is a hybrid economic system, which shares elements both with decentralized economic systems and centrally planned economies. On the one hand, 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.\textsuperscript{145} This work ethic is what may motivate individuals to optimize their utility in terms of community contributions.\textsuperscript{146} Normative commitments are seen by Putterman as explanatory factors for kibbutz participation at the absence of property rights and material rewards; ideology rather than altruism accounts for organizational cohesion and mutual assistance in Israeli kibbutzim.\textsuperscript{147} Transparent voting procedures and the requirement of two-thirds majority for the admission of new members ensures the coexistence of democracy with collectivism; a comparison between kibbutzim and moshavim indicates that the former have been traditionally more oriented toward socialist political culture.

\textsuperscript{139} Ibid: 180.
\textsuperscript{141} Ibid.
\textsuperscript{142} Ibid: 1126-1127.
\textsuperscript{143} Ibid: 1149-1152.
\textsuperscript{146} Ibid: 173-177.
\textsuperscript{147} Ibid.
whereas the latter have been more diverse.\textsuperscript{148} Nevertheless, hierarchical stratification is significant when it comes to agenda setting and policy decision-making; managers are more likely to speak in the General Assembly than ordinary workers.\textsuperscript{149} Individual responsibility is not constrained by collective property and freedom of expression is not undermined by egalitarian distribution.\textsuperscript{150} This is why my formal analysis which follows later on in this chapter places Judaism in the middle point of the individualism-collectivism continuum and characterizes it as \textit{median religion}.

Ruffle and Sosis provide interesting experimental evidence on cooperative behavior and in-group-out-group bias between kibbutz members and city residents.\textsuperscript{151} 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.\textsuperscript{152} 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.\textsuperscript{153} Therefore, kibbutzim rely on the cooperative behavior of their newer members and can afford that way the more individualistic approach of their more senior members. At the same time, 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 was significantly high.\textsuperscript{154} This implies that self-management and lack of individual property rights do not lead to the insulation of kibbutzim from the Israeli economy. On the contrary, the kibbutzim have been an inherent component of the government’s agricultural and industrial policy, and can account for Israel’s mixed economic system.

Potential incompatibilities between the institutional position of kibbutzim in the national economy and their commitment to collective welfare rather than optimal production may explain why Israel as an economic system has been defined both by plan and market structures.\textsuperscript{155} 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

\begin{itemize}
  \item Ibid: 142-144.
  \item Ibid: 147.
  \item Ibid: 154.
  \item Ibid: 157-158.
\end{itemize}
secular federations. 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. Their metrics of comparative economic performance are drawn from financial data including short- and long-run output, returns to capital and labor. 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.

It becomes clear that in Orthodox kibbutzim members are less likely to free ride than in secular ones. Moreover, the argument that religious collectives perform better, because they require and enforce higher sacrifices from their members, rationalizes individual sacrifice for the benefit of collective economic performance. Contrary to Marx’s theory on the strong relationship between Judaism and capitalism, the case of the Religious Kibbutz Federation indicates that Jewish rationality can have a positive effect on overall economic performance in a socialist economic system. At the same time, Weber argued for the propensity of Judaic norms to foster economic development in a collectivist economic system; the “pariah” status of Judaism in capitalist societies facilitated the emergence of Zionism as a collectivist movement that combined elements of socialist economic rationality and transformative economic development.

In that sense, the Religious Kibbutz Federation becomes the model organization that embodies the effectiveness of Judaic norms in an economic system where the socialist distribution of public goods is complementary to capital-intensive models of economic development. Furthermore, unlike other religions, Judaism is indifferent vis-à-vis individualist and collectivist economic systems. Prioritization of communal over individual interests puts an upper limit to individual initiative and optimization of personal rents. Voluntary participation puts a lower limit to managerial control and corrects for the shortcomings of the standard system of Soviet incentives. Thus, it is very unlikely that a Jewish political economy will constitute a corner equilibrium solution in any multidimensional space of religions, economic systems and political regimes. The kibbutz as a political and economic system suggests a prototype institution for the State of Israel, the only state in the world that is explicitly defined by Judaic norms and rabbinical traditions. Ben-Ner observes that consumption in the kibbutz can serve both collective and

158 Ibid: 508.
159 Ibid: 511.
161 Ibid: 288.
private ends, and each kibbutz member faces a two-level optimization problem: at communal and individual levels.¹⁶²

This implies that kibbutzim managers have been able to enforce commitment to communal welfare among their hierarchically inferior members, because they offer an insurance mechanism and a consumption bundle that allows for a two-level consumption bundle. Rather than operating on the basis of the Ratchet effect, which creates a vicious production cycle, kibbutzim leaders optimize overall economic performance by treating members’ individual rents as a system of external constraints. In my argument, I suggest that Israel as political and economic system reflects the unstable, yet median set of points between collectivism and individualism, plan and market, centralization and decentralization, propensity to dictatorship and propensity to democracy. The kibbutzim – particularly the Orthodox ones – suggest a set of institutional and economic arrangements on the basis of which it is possible to model Israel as a political and economic system.

2.2.3 The Muslim Tariqa

Communal solidarity and leadership of prayer by the imam constitute central elements of religious life in Islam; in early Muslim Iraq the first Islamic religious authorities were the Companions (ashab, sahaba) and the followers (tabi’un), whose duty was to interpret the Quran and they were first and second generation Muslims.¹⁶³ The idea of Muslim community developed on the basis of faith rather than kinship; Kharijites, an egalitarian group of Islam, distinct from Sunni and Shi’ite Islam, declared the necessity of fiscal justice and equality within confessional boundaries.¹⁶⁴

In the 20th century, Sufi mysticism provided the basis for religious revival in many parts of the Muslim world. Abstinence from Sufism has been central in the development of the Salafiyya trend in the Arab world; it underscored the necessity of return to the intellectual roots, advancement of literacy, education and systematic study of Islamic thought.¹⁶⁵ This is why Weismann provides a field study of this intellectual and subsequently political struggle between Sufism and Salafism in the late Ottoman city of Hamah, in Syria.¹⁶⁶ While he is not satisfied with the rather simplistic dichotomy between Sufi conservatives and Salafi progressives, he insists that the emergence of Islamic populism in the aftermath of Ottoman collapse and during the first years of the French Mandate found its way in Hamah through pre-existing Sufi orders.¹⁶⁷ Popular


¹⁶⁴ Ibid: 133.


¹⁶⁶ Ibid: 43.

¹⁶⁷ Ibid: 47.
dissatisfaction with foreign colonial presence was capitalized in the formation of independent Islamic associations that could counter the French educational system and offer new vocational alternatives to shari’a students and people of middle-class and poor backgrounds.\(^{168}\) While these organizations (jummiyat) had education as its primary focus, other forms of collective action were derived from trade-union associations as it was the case with Nawras al-Kaylani and his followers; Jann’iyat al Hidayah al-Islamiyya (Islamic Guidance Society) was the principal group, whose branch was brought from Damascus to Hamah by Abd al-Qadir al-Kaylani and set the cornerstone for the between merchants and religious leaders in Hamah.\(^{169}\) It becomes clear that the formation of the Muslim Brotherhood in Syria was the outcome of a synthesis between Salafi and Sufi elements, which tried to compromise two class groups with antithetical interests: the landowners and the emerging middle class.\(^{170}\) Nevertheless, the Arab Socialist Ba’ath Party confirms in its main ideological lines the predominance of Sufi radicalism in the central politics of many Arab states. In Dagestan and the other Russian territories in Northern Caucasus Sufi tariqas were the strongholds of local religious identity against Russian and Soviet assimilation policies since the middle of 19th century; the co-existence and mutual reinforcement of tariqas and kolkhozes, given their common normative grounding on equality, loyalty and justice, reinforced rather than undermined the Islamic identity of Dagestani communities during Soviet times.\(^{171}\) The distinctive path followed by Dagestan - contrary to that of Chechnya - is due to the identification of a collaborative basis between Dagestan’s Sufi order - Naqshbandiyya tariqa - and the pro-Russia government in Makhachkala.\(^{172}\) On the contrary, the Dagestani Wahhabis formed an opposition stream to the main religious line adopted by Sufi leadership and the Spiritual Directory of Dagestan; in the end of the 1990s linked their forces with Chechen rebels in order to overthrow Russian-supported political and economic authority in Northern Caucasus.

It is clear that Sufism is identified with traditional norms of kinship, loyalty and patriarchal authority, whereas Salafism is more open to inputs from contemporary politics and economic development.\(^{173}\) As Islam relies heavily on interpretation rather than top-down dogmatic truths, the egalitarian rhetoric of networked Sufi tariqas in Dagestan is in complete antithesis with the activist jihadist approach of Salafi ideologues that favors protests, demolition of dominant state structures and war. It is not surprising that resource abundance in Chechnya and resource constraints in Dagestan may explain the predominance of Salafism in the former case and Sufism in the latter. What holds for Chechnya can also be extended to religious groups in post-unification Yemen and other

\(^{168}\) Ibid.
\(^{169}\) Ibid: 48.
\(^{170}\) Ibid: 51.
\(^{171}\) Knysh Alexander. “Contextualizing the Sufi-Salafi Conflict (from the Northern Caucasus to Hadramawt)”, Middle Eastern Studies, Vol. 43, No. 4: 503-530, at 512-514.
\(^{172}\) Ibid: 514-515.
\(^{173}\) Ibid: 524.
states of the Arabian Peninsula.\textsuperscript{174} Salafism has been defined by collective welfare as a sum of individualist interests, whereas Sufism by the idea of collective welfare that supersedes any form of material profit.

This is in line with the prohibition of professionalized clergy and the lack of a distinctive body of religious elites in Sufi Islam. Matsuzato and Ibragimov indicate that Islamic institutions in Dagestan have been defined by two contradictory vectors: the centralization of religious activity by regional and federal authorities on the one hand, and the strong decentralization tradition of Sufism that advocates for the existence of self-governed religious collectives.\textsuperscript{175} The Spiritual Board of Dagestan Muslims (DUDM) has often been used by the Russian government as a mechanism to undermine the decentralized character of local Muslim networks and implement a hierarchical model of monitored religious life by a supreme authority. Unlike the Sovietization – (Orthodox cooptation) of Islam in Tatarstan and Bashkortostan and the prevalence of jihadism in Chechnya, tariqa brotherhoods in Dagestan materialized the Muslim principle of indivisibility between spiritual and socio-political life.\textsuperscript{176} Their ethnic composition and ties to executive authority in Makhachkala or Moscow predicted their influence at the local level; Said-Afandi Chirkeiskii was the most influential sheikh in Dagestan and his tariqa was very successful as a substitute to other forms of collective action such as political parties and interest groups.\textsuperscript{177} While tariqa brotherhoods in Dagestan were frequently used as cooptation mechanisms for the local population by Russian authorities, this was not the case in Indonesia. There, Sufi orders provided material support and spiritual guidance to their members; moreover, they also participated actively in anti-colonial struggles against the Dutch, either by expressing their antithesis to poverty or political repression, or by opposing specific policy measures taken by the colonial administration.\textsuperscript{178} Sufism was vital for advancing political and social debates at the level of the community without the interference of regional or ethnic differences; as Knysh observes, this is was also the case with tariqa brotherhoods in Yemen.\textsuperscript{179}

The preservation of spiritual autonomy from Egypt and Saudi Arabia and the focus on local hagiographic literature, devotional rituals in the shrines of local saints, and pilgrimage practices; the authority of Habib Umar is central in the Yemeni Sufi revival.\textsuperscript{180} The Sufi brotherhood of Sheikh Safi ud-Din was also the original core of the Safavid

\textsuperscript{174} Ibid: 525-526.
\textsuperscript{176} Ibid: 754.
\textsuperscript{177} Ibid: 754-756.
\textsuperscript{179} Knysh Alexander, "The "Tariqa" on a Landcruiser: The Resurgence of Sufism in Yemen", \textit{Middle East Journal}, Vol. 55, No. 3 (Summer, 2001), pp. 399-414.
\textsuperscript{180} Ibid: 414.
dynasty; it was persecuted by Shah Abbas I in its qizilbash form, because it posed a threat to the centralizing force of the imperial government in Isfahan.\textsuperscript{181} Hence, it becomes clear that mentorship, abstinence from material goods, and collective struggle against greed for wealth and power are essential for the emergence and preservation of the Sufi collective.\textsuperscript{182}

As Ayata points out, Sufi groups in Turkey have been active in the provision of public goods such as education and public health, particularly since the 1980s.\textsuperscript{183} Unlike other religious traditions, Islam has been defined much more consistently against colonialism and the West. This self-definition against Western modernization and capitalist institutions may explain the role of tariqa as the organizational cradle of Islamic community. Evidence from Ottoman Aleppo confirms the coexistence of elite and non-elite religious practices in the Sufi collective and the personality cult on the face of its leader; popular sanctity and devotion to a set of normative principles that advance collective welfare were crucial for the cooptation of antinomian saints and deviant dervish structures.\textsuperscript{184} Unlike the vertical bureaucratic structure of the Orthodox collective that acts a self-enforcing mechanism against the arbitrariness of the principal and the exit right granted to kibbutz participants in Israel, the Muslim collective relies heavily on the direct spiritual authority of the principal and his ability to provide a minimum threshold of material goods. The Muslim principal is not subject to regular replacement by a selectorate, since the origin of his authority is divine. Nevertheless, he is subject to control by the brotherhood members, when he violates the norms, which he enforces on others.

Evidence from Sufi orders in Ottoman Palestine indicates that the personal authority of the tariqa leader was the main cohesion factor of the local collective; schismatic movements away from the original tariqa were successful only when the power authority of the tariqa leader could not provide public goods or enforce discipline in regions far from the initial center.\textsuperscript{185}

Rather than challenging or co-opting the state, Sufi tariqas provided an alternative form of social and economic organization at lower institutional levels.\textsuperscript{186} Instead of the world’s current political disorder, the tariqa offers a substitute divine order that can make

\textsuperscript{183} Ibid: 51.
up for the injustice and arbitrariness of contemporary world. In any case, it is obvious that Islam as a religious doctrine has been more contextualized and localized than Eastern Orthodoxy or Judaism. Administrative centralization in Iran, authoritarian secularism and populist Islamism in modern Turkey, anti-colonial mobilization in Syria and Egypt, ethnic differentiation in Northern Caucasus or Iraq have been political and economic contexts that favored or tolerated the spiritual and organizational prerogatives of Sufi brotherhoods.

Therefore, the relationship between Islam and political economy depends on the following factors: 1. Historical legacies of colonial rule, the entanglement of local religious traditions with the economic and administrative institutions of the colonizer, 2. The intensity of spiritual competition between Salafism and Sufism and its impact on the formation and organizational capacity of Sufi orders, and 3. The significance of local politics and the ability of tariqa leaders to provide a substitute legal and political order that provides superior public goods in comparison with central authorities. In that sense, the Muslim collective can compensate for state failure and shape state formation and regime transition by setting the threshold for what constitutes a just and legitimate government.

2.3 The Model

The definition of religious collectives as economic systems suggests new horizons in the joint research of religion and political economy. It has been argued in the previous part of this essay that tariqa, the Islamic collective, generates the highest level of public goods dependence for its member, coupled with a strong personality cult of its leader; the Eastern Orthodox monastery relies on universal discipline, hierarchical provision of public goods and vertical monitoring, and the Jewish kibbutz on a combination of public goods provision and a market-defined insurance premium. To provide a more detailed schematic baseline for my analysis of world religions, I break up the collectivism-individualism dimension into two explanatory ones: the plan-market dimension and the centralization-decentralization dimension. This scheme is useful for the following reasons. First, it provides a clean introduction to the multi-period model on regime formation and regime change that I am going to present and solve below. Second, it implies that religious collectives can be also centralized markets (Catholicism) or decentralized planned systems (Sunni Islam). Hence, it moves away from the conventional pair-wise analysis of market

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and decentralization on the one hand, and plan and centralization on the other. The reason why my analysis has primarily focused on Judaism, Orthodoxy and Islam thus far is taking into account that the political economy implications of Protestantism and Catholicism have been researched much more intensively by social science scholars.

Protestantism, Judaism, Orthodoxy and Shi‘ite Islam are located on the 45 degrees line originating from the (0, 0) point of figure 2.1. This means that they have an equal share of degrees in centralization and planning structures such that Shi‘ite Islam > Orthodoxy > Judaism > Protestantism. Sunni Islam and Catholicism are equidistant and symmetrically opposite from the 45 degrees line. This implies that centralization is not necessarily correlated with more massive planning structures. The Roman Catholic Church is heavily centralized with the Vatican administration being in the top of hierarchical coordination. Nevertheless, contrary to the practice of the Orthodox Church, it does not treat collective welfare and individual profit as substitutes. The religious collective is useful only to the extent that it advances individual salvation and adherence to legal norms. It does not treat salvation as a negation of individuality and an exclusive function of the religious community. At the same time, as I have discussed above, the Sunni collective is formed on the basis of multiple decentralized communities, where the personal authority of the leader in the provision of public goods is instrumental. Moreover, Shi‘ite Islamic jurisprudence has been consistently focused on the ideal of an Islamic state that would serve the interests of the community at the expense of individual utility. The position of the Jurisprudent in the Shi‘ite Islamic polity is designed to serve as a guarantee for the
distributive commitments of the government. The fulfillment of Shari' a norms in the public sphere has been the key historical priority of Shi’ite Islam.

2.3.1 The Status Quo Game

In my model I setup a three-period game with three players: a leader \( \Gamma \) and citizens \( P \). The game has three periods. In period 1, nature decides on what the religious majority of a state is and citizens reveal their reservation utility to the leader. In period 2, the leader decides whether to modernize the economy or not after he has learned the reservation utility of his citizens. In period 3, the citizens decide whether to keep the leader or not after they have learned whether modernization has occurred. If they decide to keep him, then the status quo is established. If they decide to replace him, then the question is whether the new regime will be a democracy or a dictatorship. Transition to a democracy (or a dictatorship) depends primarily on two factors: 1. The initial regime type (democracy or dictatorship) and 2. Whether failure to modernize is linked to security, finance or a mix of both. The collapse of the Soviet Union and the Russian financial crisis of 1998 refer to the same country, Russia, and can be treated as modernization failures that led to a democracy and a dictatorship respectively.

This three-period game is defined in terms of Markov strategies, which depend only on payoff-relevant behavior, and therefore a partition of the total history of play.\(^1\) Acemoglu and Robinson in their seminal book on the Economic Origins of Dictatorship and Democracy argue that revolution occurs under conditions of high inequality and low cost of revolution.\(^2\) Moreover, to prevent revolution elites are usually faced with three choices: 1. Repression, 2. Democratization and 3. Compromised redistribution.\(^3\) It is clear that Acemoglu and Robinson understand regime durability as an efficient social contract between the rich and the poor. The status quo is preserved as long as the rich are taxing themselves sufficiently enough to keep the poor happy. The model of patronage, prevalent in Latin American politics and its transitions, is obvious here. The material interests of the poor and the wealthy define the decision of the former to revolt or abstain and the latter to repress or compromise.

Religion is defined as the payoff-relevant state of the system per Maskin and Tirole, such that \( \alpha, \in A, \Rightarrow \alpha, \in \{\alpha \leq \alpha^l \leq \epsilon, 1-\epsilon \leq \alpha^c \leq \alpha + \epsilon\} \) and \( \alpha < 1 \).\(^4\) This means that \( \alpha \) is a stochastic variable, which captures religion as the demand of public goods, including the

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\(^3\) Ibid.
delivery of public goods. This means that collectivist religions entail a high demand of public goods, whereas individualist religions a low demand of public goods and social services. In the state, where there is a high probability of decentralization, the demand for public goods is lower, as the citizens expect to receive them in the n+1 period. Nevertheless, in the state, where decentralization is not likely, citizens are more pressing in their demand for a social welfare state. The main assumption of Markov perfect equilibria (MPE) is that \( \alpha_i \) is set exogenously, which is the case here for religion. Citizens care about their wage and public goods such that

\[
U_i = \sum_{t=0}^{\infty} \beta^t [(1-\tau^i)w_i + \tau^i \sigma_i],
\]

denotes wage, \( \tau \) denotes the tax that the leader imposes on citizens, \( \bar{\sigma} \) denotes average volume of public goods, \( i \) indexes citizens, \( t \) indexes time, and \( j \) indexes the level of taxation (high or low). Moreover, the leader cares about his personal rents through taxation and the maintenance of social peace such that

\[
U_\Gamma = \sum_{t=0}^{\infty} \beta^t \left[ \frac{r}{\tau^j} - \tau^i \sigma_i \right].
\]

The current strategy set of the leader is \( \Theta_\Gamma = \{M, N\} \Rightarrow \Theta_\Gamma = \{\tau^M, \tau^N\} \) where M stands for modernization and N stands for negation to modernize such that \( \tau^M < \tau^N \). For citizens, the current strategy set is \( \Theta_p = \{D, S\} \), where D denotes decentralization and S denotes status-quo. Because religions are fixed, there is no likelihood that a collectivist majority will turn to an individualist one or vice-versa. In the high-cost collectivist payoff-dependent state the utility functions have the following form:

\[
V^P(S, \alpha^C_H, \tau^i = \tau^N) = (1-\tau^N)w + \tau^N \bar{\sigma} + \beta[kV^P(S, \alpha^C_H, \tau^N) + (1-k)V^P(S, \alpha^C_L, \tau^M)]
\]

\[
V^\Gamma(S, \alpha^C_H, \tau^i = \tau^N) = \frac{r}{\tau^N} - \tau^N \bar{\sigma} + \beta[kV^\Gamma(S, \alpha^C_H, \tau^N) + (1-k)V^\Gamma(S, \alpha^C_L, \tau^M)]
\]

where \( k \) is the probability that the demand for public goods in the economy is high, and \( \alpha^C_H = \alpha + \varepsilon \) and \( \alpha^C_L = 1 - \varepsilon \). Moreover, the leader \( \Gamma \) sets a tax \( \tau^i = \tau^N \), if \( \alpha_i = \alpha^C_H \) and \( \tau^i = \tau^M \), if \( \alpha_i = \alpha^C_L \). The difference from the Acemoglu-Robinson model is that the public monitoring cost is carried by the leader rather than the citizens. Nevertheless, the citizens are more likely to demand decentralization, when the demand for public goods rises and it is therefore harder for the leader to track their revolutionary activity. If decentralization occurs, then the payoffs of the leader and the citizens have the following form:

\[
V^P(D, \alpha^C_H = \alpha + \varepsilon) = \frac{[1+(\alpha + \varepsilon)]\bar{\sigma}}{1-\beta}
\]

\[
V^\Gamma(D, \alpha^C_H = \alpha + \varepsilon) = 0
\]

It is essential to point out here that:
\[ w = \frac{\overline{vw}}{1-\pi} \]
\[ \sigma = \frac{(1-v)\overline{w}}{\pi} \]
\[ r = e^{-w} \]

where \( \pi \) is bureaucratic capacity such that \( \pi \in [0,1] \), \( v \) is the level of labor skills/effort such that \( v \in [0,1] \) and \( \overline{w} \) is the average market wage. Thus, decentralization can be prevented if and only if
\[ V^P(S, \alpha^C_H, \tau^N) \geq V^P(D, \alpha^C_H = \alpha + \epsilon) \Rightarrow \]
\[ (1-\tau^N)w + \tau^N \sigma + \beta[kV^P(S, \alpha^C_H, \tau^N) + (1-k)V^P(S, \alpha^C_L, \tau^M)] \geq \frac{[1+(\alpha+\epsilon)]\sigma}{1-\beta} \Rightarrow \]
\[ (1-\tau^N)\frac{\overline{vw}}{1-\pi} + \tau^N \frac{(1-v)\overline{w}}{\pi} + \beta[kV^P(S, \alpha^C_H, \tau^N) + (1-k)V^P(S, \alpha^C_L, \tau^M)] \geq \frac{[1+(\alpha+\epsilon)](1-v)\overline{w}}{\pi(1-\beta)} \tag{1} \]

It is important to note here that:
\[ V^P(S, \alpha^C_H, \tau^N) = (1-\tau^N)w + \tau^N \sigma + \beta[kV^P(S, \alpha^C_H, \tau^N) + (1-k)V^P(S, \alpha^C_L, \tau^M)] \]
\[ V^P(S, \alpha^C_L, \tau^M) = (1-\tau^M)w + \tau^M \sigma + \beta[kV^P(S, \alpha^C_H, \tau^N) + (1-k)V^P(S, \alpha^C_L, \tau^M)] \]
\[ V^P(S, \alpha^C_L, \tau^N) - V^P(S, \alpha^C_L, \tau^M) = (\tau^M - \tau^N)w + (\tau^M - \tau^N)\sigma \tag{2} \]

From (1) and (2), I rewrite the incentive compatibility constraint in the following form:
\[ (1-\tau^N)\frac{\overline{vw}}{1-\pi} + \tau^N \frac{(1-v)\overline{w}}{\pi} + \beta[k((\tau^M - \tau^N)w + (\tau^M - \tau^N)\sigma] + \beta[V^P(S, \alpha^C_L, \tau^N) - (\tau^M - \tau^N)w - (\tau^M - \tau^N)\sigma] \geq \frac{[1+(\alpha+\epsilon)](1-v)\overline{w}}{\pi(1-\beta)} \]

Now, I solve just for \( V^P(S, \alpha^C_L, \tau^N) \), such that:
\[ V^P(S, \alpha^C_H, \tau^N) = (1-\tau^N)\frac{\overline{vw}}{1-\pi} + \tau^N \frac{(1-v)\overline{w}}{\pi} + \beta[k((\tau^M - \tau^N)w + (\tau^M - \tau^N)\sigma] + \beta[V^P(S, \alpha^C_L, \tau^N) - (\tau^M - \tau^N)w - (\tau^M - \tau^N)\sigma] \Rightarrow \]
\[ (1-\beta)V^P(S, \alpha^C_H, \tau^N) = (1-\tau^N)\frac{\overline{vw}}{1-\pi} + \tau^N \frac{(1-v)\overline{w}}{\pi} + \beta[k((\tau^M - \tau^N)w + (\tau^M - \tau^N)\sigma] \Rightarrow \]
\[ (1-\beta)V^P(S, \alpha^C_H, \tau^N) = (1-\tau^N)\frac{\overline{vw}}{1-\pi} + \tau^N \frac{(1-v)\overline{w}}{\pi} + \beta[(\tau^M - \tau^N)w + (\tau^M - \tau^N)(k-1)] \Rightarrow \]
\[ (1-\beta)V^P(S, \alpha^C_H, \tau^N) = (1-\tau^N)\frac{\overline{vw}}{1-\pi} + \tau^N \frac{(1-v)\overline{w}}{\pi} + \beta(k-1)[(\tau^M - \tau^N)w + (\tau^M - \tau^N)\sigma] \tag{3} \]

Equality (3) can be further simplified in the following way:
\[(1 - \beta)V^p(S, \alpha^C_H, \tau^N) = [(1 - \tau^N) + \beta(k - 1)(\tau^M - \tau^N)] \frac{\pi v}{1 - \pi} + \]

\[\beta(k - 1)(\tau^M - \tau^N) \frac{(1 - v)w}{\pi} \Rightarrow\]

\[V^p(S, \alpha^C_H, \tau^N) = [(1 - \tau^N) + \beta(k - 1)(\tau^M - \tau^N)] \frac{\pi v}{(1 - \beta)(1 - \pi)} + \]

\[\tau^N + \beta(k - 1)(\tau^M - \tau^N) \frac{(1 - v)w}{(1 - \beta)\pi} \quad (4)\]

I substitute (3) in (1) and I get:

\[\{(1 - \tau^N) + \beta(k - 1)(\tau^M - \tau^N)\} \frac{\pi v}{(1 - \beta)(1 - \pi)} + \tau^N + \beta(k - 1)(\tau^M - \tau^N) \frac{(1 - v)w}{(1 - \beta)\pi} \geq \]

\[\frac{\pi v}{(1 - v)(1 - \pi)} \Rightarrow\]

\[\pi[(1 - \tau^N) + \beta(k - 1)(\tau^M - \tau^N)] w + (1 - \pi)[\tau^N + \beta(k - 1)(\tau^M - \tau^N)] (1 - v)w \geq \]

\[(1 - \pi)[1 + (\alpha + \epsilon)](1 - v)w \Rightarrow\]

\[\pi[(1 - \tau^N) + \beta(k - 1)(\tau^M - \tau^N)] v + (1 - \pi)[\tau^N + \beta(k - 1)(\tau^M - \tau^N)] (1 - v) \geq \]

\[(1 - \pi)[1 + (\alpha + \epsilon)](1 - v) \Rightarrow\]

\[\pi v[(1 - \tau^N) + \beta(k - 1)(\tau^M - \tau^N)] + \tau^N + \beta(k - 1)(\tau^M - \tau^N] \geq 1 + \alpha + \epsilon \Rightarrow\]

\[\frac{\pi v}{(1 - v)(1 - \pi)} + \tau^N \left[1 - \frac{\pi v}{(1 - v)(1 - \pi)}\right] + \]

\[\beta(k - 1)(\tau^M - \tau^N) \left[1 + \frac{\pi v}{(1 - v)(1 - \pi)}\right] \geq 1 + \alpha + \epsilon \]

\[\frac{\pi v}{(1 - v)(1 - \pi)} - \tau^N \left[\beta(k - 1) + 1\right] \frac{\pi v}{(1 - v)(1 - \pi)} + \beta(k - 1) - 1 \right] + \]

\[\beta(k - 1)\tau^M \left[1 + \frac{\pi v}{(1 - v)(1 - \pi)}\right] \geq 1 + \alpha + \epsilon \quad (5)\]

Therefore, the incentive compatibility constraint against decentralization holds under the following condition:

\[\alpha \leq \tau^N \left[\beta(k - 1) + 1\right] \frac{\pi v}{(1 - v)(1 - \pi)} + \beta(k - 1) - 1 \right] - \frac{\pi v}{(1 - v)(1 - \pi)} - \beta(k - 1)\tau^M \left[1 + \frac{\pi v}{(1 - v)(1 - \pi)}\right] - 1 - \epsilon \quad (6)\]

We observe than in a high-cost collectivist economy the demand for public goods is decreasing with bureaucratic capacity \(\pi\) and labor skills/effort \(v\). This can be rewritten as equality such that:
\[\alpha = \tau^N \left[ \beta(k-1)+1 \right] \left[ \frac{\pi v}{(1-v)(1-\pi)} + \beta(k-1)-1 \right] - \frac{\pi v}{(1-v)(1-\pi)} - \beta(k-1) \tau^M \left[ 1 + \frac{\pi v}{(1-v)(1-\pi)} \right] - 1 - \epsilon \] (7)

**Proposition 1**

There is a unique Markov Perfect Equilibrium of the collectivist economy game that has the following form:

1. If \( \alpha^C \geq \pi \) and \( \alpha^C \geq v \), then decentralization occurs under \( \tau^l = \tau^M \).
2. If \( \alpha^C < \pi \) and \( \alpha^C < v \), then the following equilibria come into play:
   a. If \( \alpha^C \geq \alpha \), then the status quo is preserved in \( \alpha^C_H \) under \( \tau^l = \tau^M \) and decentralization occurs in \( \alpha^C_L \) under \( \tau^l = \tau^M \).
   b. If \( \alpha^C < \alpha \), then decentralization occurs in \( \alpha^C_L \) under \( \tau^l = \tau^M \).
3. If \( \alpha^C \geq \pi \) and \( \alpha^C < v \), or if \( \alpha^C < \pi \) and \( \alpha^C \geq v \), then the following equilibria are observed:
   a. If \( \alpha^C \geq \alpha \), then the status quo is preserved in \( \alpha^C_H \) under \( \tau^l = \tau^M \) and decentralization occurs in \( \alpha^C_L \) under \( \tau^l = \tau^M \).
   b. If \( \alpha^C < \alpha \), then the status quo is preserved in \( \alpha^C_H \) under \( \tau^l = \tau^N \).

The public goods threshold in a collectivist economy is critical for the occurrence of decentralization. If the demand for public goods is higher than the indifference level between decentralization and the status quo, then decentralization is very likely to take place. On the contrary, if the demand for public goods is lower than the indifference level \( \alpha^* \), then the status quo is preserved in the high-demand state of a collectivist economy and decentralization occurs in the low-demand payoff-dependent state. To derive these results, I naturally rely on the fact that \( \frac{\partial \alpha^C}{\partial \pi} < 0 \) and \( \frac{\partial \alpha^C}{\partial v} < 0 \).

In an individualist economy, the boundaries of the demand for public goods are lower such that \( \alpha_i \in \Lambda \Rightarrow \alpha^l_i \in \{ \alpha^C_L = \alpha, \alpha^C_H = \epsilon \} \). I set up the payoffs in a similar way:

\[
V^P(S, \alpha^C_H, \tau^N) = (1 - \tau^N)w + \tau^N \sigma + \beta[kV^P(S, \alpha^C_H, \tau^N) + (1-k)V^P(S, \alpha^C_H, \tau^M)]
\]
\[
V^P(S, \alpha^C_L, \tau^M) = (1 - \tau^M)w + \tau^M \sigma + \beta[kV^P(S, \alpha^C_L, \tau^N) + (1-k)V^P(S, \alpha^C_L, \tau^M)]
\]
\[
V^P(S, \alpha^C_H, \tau^N) - V^P(S, \alpha^C_L, \tau^M) = (\tau^M - \tau^N)w + (\tau^M - \tau^N)\sigma \quad (2)
\]

If decentralization occurs, then the payoffs of the leader and the citizens have the following form:

\[V^P(D, \alpha^C_H = \epsilon) = \frac{(1+\epsilon)\sigma}{1-\beta} \]

\[V^P(D, \alpha^C_L = \epsilon) = 0 \]

Thus, the incentive computability constraint that prevents decentralization is the following:
which can be rewritten as:

\[
\varepsilon = \tau^N \left[ \beta (k-1)+1 \frac{\pi_v}{(1-v)(1-\pi)} + \beta (k-1)-1 \right] - \frac{\pi_v}{(1-v)(1-\pi)} - \beta (k-1) \tau^M \left[ 1 + \frac{\pi_v}{(1-v)(1-\pi)} \right] - 1
\] (9)

From proposition 1, I derive the following corollary:

**Corollary 1**

There is a unique Markov Perfect Equilibrium of the individualist economy game that has the following form:

1. If \( \alpha^I \geq \pi \) and \( \alpha^I \geq v \), then decentralization occurs under \( \tau^I = \tau^M \).

2. If \( \alpha^I < \pi \) and \( \alpha^I < v \), then the following equilibria come into play:
   a. If \( \alpha^I \geq \varepsilon \), then the status quo is preserved in \( \alpha^I \) under \( \tau^I = \tau^N \) and decentralization occurs in \( \alpha^I \) under \( \tau^I = \tau^M \).
   b. If \( \alpha^I < \varepsilon \) then decentralization occurs in \( \alpha^I \) under \( \tau^I = \tau^M \).

3. If \( \alpha^I \geq \pi \) and \( \alpha^I < v \), or if \( \alpha^I < \pi \) and \( \alpha^I \geq v \), then the following equilibria are observed:
   a. If \( \alpha^I \geq \varepsilon \), then the status quo is preserved in \( \alpha^I \) under \( \tau^I = \tau^N \) and decentralization occurs in \( \alpha^I \) under \( \tau^I = \tau^M \).
   b. If \( \alpha^I < \varepsilon \) then the status quo is preserved in \( \alpha^I \) under \( \tau^I = \tau^N \).

Decentralization is cheaper in an individualist than in a collectivist economy. This is why it is much easier for a leader of an individualist economy to lose power. The critical threshold \( \varepsilon \) in an individualist economy indicates that if the binding demand for public goods is infinitely small, then in an economy with a high level of labor skills and bureaucratic capacity the collectivist demand threshold makes decentralization much harder than the individualist one. Decentralization under collectivism requires a much more complex bureaucratic structure or a much higher level of skills among the citizens; in that sense, the aristocratic nature of collectivism becomes evident here. Unskilled citizens are not as able to induce political and economic change in a collectivist economy as they are in an individualist economy. Because their demand for public goods will always exceed their level of labor skills, decentralization becomes contingent upon the level of bureaucratic capacity.

**Lemma 1**

In a collectivist economy with high bureaucratic capacity, decentralization occurs if and only if the relative effect of skills on the demand for public goods weakly dominates the relative effect of bureaucratic capacity such that

\[
\left| \frac{\partial \alpha^C}{\partial v} \right| \geq \left| \frac{\partial \alpha^C}{\partial \pi} \right|
\]

Modernization in a collectivist economy with low-skilled citizens relies on the poor quality of bureaucratic institutions. This condition brings us to the low-payoff dependent state \( \alpha^C_L \).
and the imposition of the modernization tax $\tau^M$ by the leader. On the contrary, an individualist economy with high-skilled citizens shifts to decentralization much faster than a similar economic system with low-skilled citizens. Historical evidence from the former Soviet Union, Western Europe and the Middle East has shown that the relative tradeoff between bureaucratic capacity and labor skills defines political and economic transitions in collectivist and individualist economic systems. The Soviet Union collapsed when the low level of labor effort under central planning was not compensated by bureaucratic monitoring. At the same time, Israel was able to maintain the status quo in its provision of public goods because of its efficient preservation of this tradeoff. In the same logic, the political and economic stability in Western Europe since the end of the Second World War can be explained as a successful paradigm of decentralization in an individualist economic system.

2.3.2 The Decentralization Game

Up to this point, the two possible regime outcomes are either status quo preservation with tax $\tau^I = \tau^N$ or decentralization with tax $\tau^I = \tau^M$. It is now useful to expand the initial stage game in terms of alternatives to decentralization. The leader in period 1 decides whether to maintain the status quo $\tau^I = \tau^N$ or not and in period 2, if he wants to change the status quo, he decides whether to decentralize such that $\tau^I = \tau^M$ or resort to centralized distribution such that $\tau^I = \tau^{CD} = \frac{\tau^M}{\lambda}$. The inequality $\tau^N > \tau^{CD} > \tau^M$ holds. After observing the actions of the leader, the citizens decide whether to demand a high or a low quantity of public goods.

The decentralization payoffs for citizens and the leader in a collectivist economy have now as follows:

$$V^C(D,\alpha^C_H = \alpha + \varepsilon) = \frac{(1-\tau^M)(1+(\alpha + \varepsilon))\sigma}{1-\beta}$$

$$V^C(D,\alpha^C_H = \alpha + \varepsilon) = \tau^M e^{\sigma - W}$$

The difference in the payoffs is that now the leader does not receive zero when decentralization occurs. Since I have added one more period in the transitions game, the incentive compatibility constraints can be written as follows:

$$V^P(S,\alpha^C_H, \tau^I = \tau^N) \geq V^P(CD,\alpha^C_H, \tau^I = \tau^{CD}) \geq V^P(D,\alpha^C_H, \tau^I = \tau^M)$$

$$V^T(S,\alpha^C_H, \tau^I = \tau^N) \geq V^T(CD,\alpha^C_H, \tau^I = \tau^{CD}) \geq V^T(D,\alpha^C_H, \tau^I = \tau^M)$$

where CD denotes centralized distribution and $\tau^{CD}$ its respective tax. This means that if the leader prefers the status quo over centralized distribution, he will certainly prefer it over decentralization, given $\tau^N > \tau^{CD} > \tau^M$. Let us now compare the payoffs of status quo
preservation, centralized distribution and decentralization in the high-payoff dependent state of a collectivist economy.

\[ V^T(S, \alpha_H^C, \tau^l = \tau^N) \geq V^T(CD, \alpha_H^C, \tau^l = \tau^{CD}) \] (9)

\[ V^T(CD, \alpha_H^C, \tau^l = \tau^{CD}) \geq V^T(D, \alpha_H^C, \tau^l = \tau^M) \] (10)

I assume that centralized distribution comes to an additional cost \( \lambda \in [0,1] \) as an intermediate solution between status quo preservation and decentralization. Thus, I rewrite (9) as an equality in order to define \( \lambda \) as a threshold:

\[ V^T(S, \alpha_H^C, \tau^l = \tau^N) = V^T(CD, \alpha_H^C, \tau^l = \tau^{CD} | \lambda) \Rightarrow \]

\[ [(1-\tau^N) + \beta(k-1)(\tau^M - \tau^N)] \frac{v^w}{(1-\beta)(1-\pi)} + [(\tau^N + \beta(k-1)(\tau^M - \tau^N)) \frac{(1-v)w}{(1-\beta)\pi} = \frac{\tau^M e^\tau^N w}{\lambda(1-\beta)} \Rightarrow \]

\[ \pi[(1-\tau^N + \beta(k-1)(\tau^M - \tau^N))[v + (1-\pi)[\tau^N + \beta(k-1)(\tau^M - \tau^N)](1-v) = \frac{\pi(1-\pi)\tau^M e^\tau^N}{\lambda} \Rightarrow \]

\[ \lambda_1^{CD} = \frac{\pi(1-\pi)\tau^M e^\tau^N}{\pi v [(1-\tau^N + \beta(k-1)(\tau^M - \tau^N)) + (1-\pi)(1-v)[\tau^N + \beta(k-1)(\tau^M - \tau^N)]]} \] (11)

Since \( \tau^N > \tau^M \), it becomes clear that \( \lambda \) is increasing with the modernization tax \( \tau^M \). Thus, the higher the modernization tax the more attractive becomes centralized distribution over status quo preservation. If \( \lambda < \lambda_1^{CD} \), then status quo preservation is preferred to centralized distribution for the leader, and if \( \lambda \geq \lambda_1^{CD} \), then the opposite holds. Similarly, the threshold between centralized distribution and decentralization is defined in the following way:

\[ V^T(D, \alpha_H^C, \tau^l = \tau^M) = V^T(CD, \alpha_H^C, \tau^l = \tau^{CD} | \lambda) \Rightarrow \]

\[ \frac{\tau^M e^\tau^N w}{\lambda(1-\beta)} = \frac{\tau^M e^\tau^N w}{\lambda(1-\beta)} \Rightarrow \lambda_2^{CD} = 1 \] (12)

The threshold in (12) explains pretty explicitly the rigidity of collectivist regimes and their preference for partial vis-à-vis full redistribution. If \( \lambda < 1 \), then centralized distribution is strictly preferred to decentralization and if \( \lambda = 1 \), then the leader is indifferent between centralized distribution and decentralization.

Let us now compare the payoffs for the citizens. They can also face any of these three types of taxes that may lead to status quo preservation, centralized distribution or decentralization. Therefore the tradeoffs are setup as follows:

\[ V^P(S, \alpha_H^C, \tau^l = \tau^N) \geq V^P(CD, \alpha_H^C, \tau^l = \tau^{CD} | \lambda) \] (13)

\[ V^P(CD, \alpha_H^C, \tau^l = \tau^{CD} | \lambda) \geq V^P(D, \alpha_H^C, \tau^l = \tau^M) \] (14)

It is essential to point out here that:
Let us know make the appropriate substitutions in (13):

\[
[(1-\tau^N) + \beta(k-1)(\tau^M - \tau^N)]\frac{1}{1-\beta} + [\tau^N + \beta(k-1)(\tau^M - \tau^N)]\frac{1}{1-\beta} \geq (1-\frac{\lambda^M}{\lambda})[1+(\alpha+\varepsilon)](1-\frac{\lambda^M}{\lambda}) \Rightarrow
\]

\[
\frac{\lambda}{\lambda-\tau^M} \left[ [(1-\tau^N) + \beta(k-1)(\tau^M - \tau^N)]\frac{(1-v)}{\pi(1-\pi)} + [\tau^N + \beta(k-1)(\tau^M - \tau^N)] \right] \geq 1 + \alpha + \varepsilon \Rightarrow
\]

\[
\alpha \leq \frac{\lambda}{\lambda-\tau^M} \left[ [(1-\tau^N) + \beta(k-1)(\tau^M - \tau^N)]\frac{(1-v)}{\pi(1-\pi)} + [\tau^N + \beta(k-1)(\tau^M - \tau^N)] \right] - 1 - \varepsilon
\]

which can be rewritten as equality and thus a binding constraint such that:

\[
\alpha = \frac{\lambda}{\lambda-\tau^M} \left[ [(1-\tau^N) + \beta(k-1)(\tau^M - \tau^N)]\frac{(1-v)}{\pi(1-\pi)} + [\tau^N + \beta(k-1)(\tau^M - \tau^N)] \right] - 1 - \varepsilon
\] (15)

where citizens are indifferent between status quo preservation and centralized distribution, and

\[
\lambda = 1
\] (16)

where citizens are indifferent between centralized distribution and decentralization.

Similarly for an individualist economy the following binding constraints hold:

\[
\varepsilon = \frac{\lambda}{\lambda-\tau^M} \left[ [(1-\tau^N) + \beta(k-1)(\tau^M - \tau^N)]\frac{(1-v)}{\pi(1-\pi)} + [\tau^N + \beta(k-1)(\tau^M - \tau^N)] \right] - 1
\] (17)

\[
\lambda = 1
\] (18)

Because \( \lambda^C^D > \lambda^C^D \), it is clear that transitivity between the leader’s three strategies holds. The leader prefers status quo preservation to centralized distribution, and thus to decentralization.

**Proposition 2**

There is a unique Markov Perfect Equilibrium of the collectivist economy game that has the following form:

1. If \( \alpha^C \geq \pi \) and \( \alpha^C \geq v \), then decentralization occurs under \( \tau^j = \tau^M \).
2. If \( \alpha^C < \pi \) and \( \alpha^C < v \), then the following equilibria come into play:
   a. If \( \alpha^C \geq \alpha \) and \( \lambda < \lambda^C^D \), then centralized distribution occurs under \( \tau^j = \tau^CD \).
b. If $\alpha^c < \alpha$ and $\lambda \geq \lambda_1^{CD}$, then the status quo is preserved in $\alpha^c_H$ under $\tau^j = \tau^N$ and centralized distribution occurs in $\alpha^c_C$ under $\tau^j = \tau^{CD}$.

c. If $\alpha^c < \alpha$ and $\lambda \leq \lambda_2^{CD} = 1$, then centralized distribution occurs in $\alpha^c_C$ under $\tau^j = \tau^{CD}$ and decentralization in $\alpha^c_L$ under $\tau^j = \tau^M$.

3. If $\alpha^c \geq \pi$ and $\alpha^c < \nu$, or if $\alpha^c < \pi$ and $\alpha^c \geq \nu$, then the following equilibria are observed:

a. If $\alpha^c \geq \alpha$ and $\lambda > \lambda_1^{CD}$, then the status quo is preserved under $\tau^j = \tau^N$.

b. If $\alpha^c \geq \alpha$ and $\lambda \leq \lambda_1^{CD}$, then the status quo is preserved in $\alpha^c_H$ under $\tau^j = \tau^N$ and centralized distribution occurs in $\alpha^c_L$ under $\tau^j = \tau^{CD}$.

c. If $\alpha^c < \alpha$ and $\lambda \leq \lambda_2^{CD} = 1$, then centralized distribution occurs in $\alpha^c_H$ under $\tau^j = \tau^{CD}$ and decentralization in $\alpha^c_L$ under $\tau^j = \tau^M$.

**Corollary 2**

There is a unique Markov Perfect Equilibrium of the individualist economy game that has the following form:

1. If $\alpha^l \geq \pi$ and $\alpha^l \geq \nu$, then decentralization occurs under $\tau^j = \tau^M$.

2. If $\alpha^l < \pi$ and $\alpha^l < \nu$, then the following equilibria come into play:

a. If $\alpha^l \geq \epsilon$ and $\lambda < \lambda_1^{CD}$, then centralized distribution occurs under $\tau^j = \tau^{CD}$.

b. If $\alpha^l < \epsilon$ and $\lambda \geq \lambda_1^{CD}$, then the status quo is preserved in $\alpha^l_H$ under $\tau^j = \tau^N$ and centralized distribution occurs in $\alpha^l_L$ under $\tau^j = \tau^{CD}$.

c. If $\alpha^l < \epsilon$ and $\lambda \leq \lambda_2^{CD} = 1$, then centralized distribution occurs in $\alpha^l_H$ under $\tau^j = \tau^{CD}$ and decentralization in $\alpha^l_L$ under $\tau^j = \tau^M$.

3. If $\alpha^l \geq \pi$ and $\alpha^l < \nu$, or if $\alpha^l < \pi$ and $\alpha^l \geq \nu$, then the following equilibria are observed:

a. If $\alpha^l \geq \epsilon$ and $\lambda < \lambda_1^{CD}$, then the status quo is preserved under $\tau^j = \tau^N$.

b. If $\alpha^l \geq \epsilon$ and $\lambda \geq \lambda_1^{CD}$, then the status quo is preserved in $\alpha^l_H$ under $\tau^j = \tau^N$ and centralized distribution occurs in $\alpha^l_L$ under $\tau^j = \tau^{CD}$.

c. If $\alpha^l < \epsilon$ and $\lambda \leq \lambda_2^{CD} = 1$, then centralized distribution occurs in $\alpha^l_H$ under $\tau^j = \tau^{CD}$ and decentralization in $\alpha^l_L$ under $\tau^j = \tau^M$.

**Lemma 2**

Centralized distribution is more likely in a collectivist rather than an individualist economy, and decentralization is more likely in an individualist rather than a collectivist economy, because $\alpha > \epsilon$, $\frac{\partial \lambda_1^{CD}}{\tau^N} > 0$ and $\frac{\partial \lambda_2^{CD}}{\tau^M} = 0$.

The introduction of non-zero payoffs for the leader and the citizens in the cases of centralized distribution or decentralization occur has transformed the set of possible
regime outcomes. The definition of centralized distribution as a more costly form of decentralization and the equality $\lambda_{CD}^C = 1$ indicate that decentralization is harder when the leader can extend his office tenure horizon and increase his income through the imposition of a higher tax. Rather than enforcing decentralization, citizens are driven by their leader toward centralized distribution. The emergence of central distributive politics as a Markov Perfect Equilibrium amplifies the differences between individualism and collectivism. In an individualist economy, there is usually a lower level of bureaucratic capacity and therefore $\lambda_{si}^{CD} < \lambda_{sc}^{CD}$. When the choice comes between status quo preservation and centralized distribution, the latter is more likely in individualist economic systems. This explains why welfare state formation is more likely in an individualist rather than a collectivist economic system. As $\frac{\partial \lambda_{2CD}}{\partial M} = 0$ indicates, decentralization can occur in the low-payoff dependent state, when the demand for public goods is below the indifference threshold between status quo preservation and decentralization. Partial transition from the status quo such that centralized distribution occurs appears to be the most stable and frequent political and economic equilibrium in the high-payoff dependent state. The difference between individualism and collectivism is that a higher demand for public goods makes this transition less likely under collectivism.

2.4 Conclusions

Religion matters not only as a set of normative rules that define the human relationship to God. In this essay, I argue that 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 collectivism-individualism axis which I suggested in the beginning of this essay can be analyzed as a set of two dimensions: the plan-market dimension and the centralization-decentralization dimension. The first dimension refers to the degree of bureaucratic capacity in the provision of public goods; the second to the ability of its leader to take all fiscal decisions. The scaling of world religions such as Judaism, Orthodox Christianity, Roman Catholicism, Protestantism, Sunni Islam and Shi’ite Islam in this plane provides some useful insights in this direction. While Orthodox Christianity, Judaism, Shi’ite Islam and Protestantism lie on the 45 degrees line of the plane, Sunni Islam and Roman Catholicism are equidistant from it; this means that an individualist religion can be more centralized than a collectivist religion and vice-versa.

The comparative study of the monastery, the kibbutz and the tariqa 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 resource distribution in religious collectives and the extent to which religious norms influence...
individual and collective welfare. The effects of religion on political and economic systems are studied in the form of tradeoffs in the microcosm of these three foundational types of Eastern collectivism; the tradeoff between market wage opportunity cost and social insurance in the kibbutz, between obedience and individual profit in the monastery, between communal benefits and social exclusion in the tariqa.

The status quo and centralized distribution games that I propose have common grounds: the elaboration of conditions under which the leader loses power and fiscal competencies are transferred to a lower level of government. Since I model religion as demand for public goods that is higher in a collectivist and lower in an individualist economic system, then decentralization occurs at levels of low bureaucratic capacity and labor skills in the high-payoff dependent state of an individualist rather than a collectivist economy. Centralized distribution becomes more credible by a higher demand of public goods, a higher level of bureaucratic capacity and a lower level of labor skills. Status quo preservation is efficient, either when $\lambda > \lambda_{CD}$ or when the demand for public goods is lower than bureaucratic capacity and/or labor skills but higher than the demand indifference threshold between status quo and decentralization. In that sense, this study may be one of the first steps in the study of religion as a series of implicit public welfare contracts.
Chapter 3

Religious Identity, Governance and Centralization in Russia and Israel

3.1 Introduction

The provision of public goods is a key function of the state. A critical question is therefore how citizens perceive the adequacy of this public good provision. In this paper, I argue that what matters is whether public goods provision meets the preferences of recipients and that these preferences, in turn, are significantly shaped by religious identity. Religion influences citizen preferences for public goods and social services, but not all religions influence preferences in the same way.

The collectivism-individualism distinction is critical for explaining the effects of religion on perceptions of centralization. Individualism is defined as the prioritization of individual profit over collective welfare such that people designate the market rather than the state as the main source of their personal rents. Collectivism is then defined as the inverse; the material interests of the community are normatively more significant than those of individuals such that the state becomes the main source of personal rents.

The effects of religion on individual welfare preferences have implications for intergovernmental relations and thus perceptions of centralization. In societies where a collectivist religion dominates, local governments are expected to provide more public goods, given the average wage in society. To meet individual welfare preferences, central governments under collectivist religions are faced with higher monitoring and enforcement costs. To make up for those costs, they are reluctant to decentralize and thus equip local administrations with capacity to collect their own revenues. In societies where an individualist religion dominates, local governments are expected to provide less public goods, given the average wage in society. Central governments under individualist religions are faced with citizen preferences for less public goods and thus with lower monitoring and enforcement costs when they interact with local administrations. Hence, they are more eager to decentralize.

The dichotomy between decentralization and centralization in intergovernmental relations reflects the dichotomy between individualism and collectivism in religion. Central governments respond strategically to individual welfare preferences, which are shaped by religion. Citizens are more likely to evaluate central governments positively if


their religion is collectivist, because they receive their preferred levels of local public goods due to central government monitoring over local administrations. Similarly, citizens are more inclined to evaluate central governments negatively if their religion is individualist, because they receive their preferred levels of local public goods by administrations that collect most of their revenues on their own rather than through transfers from central governments.

But religious affiliation alone is not sufficient for explaining why religion makes some citizens like or dislike central government more than others. This necessary variation is offered by religious identity, defined both as collective ideas for the provision of public goods (collectivist religious identity) and as personal identification with distinct religious traditions (individualist religious identity). Collectivist religious identity implies that people view their religion as inseparable members of a community, whereas individualist religious identity suggests that people view religion primarily through the lens of isolated individuals reading the scriptures.

A citizen that identifies strongly with a collectivist religion is likely to demand more local public goods, because he treats them as sine qua non components for community stability and cohesion. On the contrary, a citizen that identifies strongly with an individualist religion is likely to demand less public goods, because he believes strongly in individual responsibility and personal work as conditions for community cohesion. Hence, religious identity matters for governance, because it motivates people to favor or oppose dependence from local public goods and thus it shapes people’s beliefs about a stronger or a weaker central government. Collectivist religious identity tends to favor larger and more centralized governments, whereas individualist religious identity smaller and more decentralized governments.

In this paper I categorize Islam and Eastern Orthodoxy as collectivist religions, because in their respective theological traditions equality and social justice are more important than personal freedom and material success. Protestantism and Roman Catholicism, in contrast, are defined as individualist religions, because they treat social welfare as an extension of civil rights and individual self-determination. Judaism is in the midpoint of the individualist/collectivist continuum, because it combines elements from both individualism and collectivism: commitment to collective welfare is constrained by individual responsibility for violation of religious norms. The differences in the sectarian organization of Pharisees and Essenes suggest that Judaism has been historically

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196 What makes theological traditions matter for political economy is the distribution of resources in religious collectives and the individual steps required toward salvation. Eastern Orthodoxy stresses commitment to internal hierarchies as key for individual happiness, whereas Islam focuses on the development of community networks.
197 What distinguishes Protestantism from Roman Catholicism is the merit-based individual path to self-fulfillment in the first case and the contractual reciprocity required for the provision of public goods in the second case.
both a moral critique to the state (Pharisees) and a Platonic collective teaching abstinence from individual property (Essenes). The modern Israeli kibbutz embodies the tradeoff between these two traditions of ancient Judaism, lack of private property and provision of social insurance that matches the opportunity cost of market wage.  

In individualist religions, local public goods are defined as contracts between local government and individuals; a local administration is perceived as effective if and only if it is able to abide by its contractual obligations to citizens. This is the definition of contractual public goods. The state derives its legitimacy through the provision of public goods. The notion of citizenship in individualism is an exchange contract between the recipients of public goods and political authority. The state is seen as a set of institutions maximizing individual interests rather than as a hierarchy that prioritizes the survival of the poorest members of society.

In collectivist religions, in contrast, local public goods are defined as welfare guarantees. The provision of public goods intends to support the more disadvantaged members of society and preserve an equality minimum. Collectivist citizenship is linked with fairness and abstinence from free-riding. Administration is perceived as effective if and only if it delivers a planned welfare level to citizens. This commitment to collective welfare facilitates the emergence of administrative hierarchies – unitary or multidivisional – that can provide efficiently a higher volume of public goods in comparison with independent local administrations. This is the definition of hierarchical public goods. Their provision is the outcome of oversight and regulation implemented under conditions of imperfect monitoring.

The selection of Russia and Israel as my cases serves multiple purposes. First, it provides a mosaic of three major world religions: Judaism, Eastern Orthodoxy and Sunni Islam. Second, it captures the linkages between hierarchical institutions and Eastern Orthodoxy on the one hand and between religious diversity and informal local autonomy on the other. The cities where I collected data in Russia are primarily Orthodox and thus a very good venue to test the effects of Russian Orthodoxy on centralization. In Israel I have taken into account its multi-confessional nature and test whether different religions generate different attitudes toward the central government within the same state. Third, it compares two centralized administrative systems with powerful apparatuses in Moscow and Jerusalem. That way, it is possible to draw crucial inferences about comparative definitions of administrative effectiveness based on religious differences.

I collected 1695 survey questionnaires in the multifunctional centers for the provision of state and municipal services in the cities of Lipetsk, Krasnodar and Sochi in Russia, and 459 survey questionnaires in the city administrations of Netanya and Nazareth in Israel. To complete this dissertation essay I had also intended to include questionnaire data on Muslim and Christian attitudes toward central and local governments in Alexandria and Asyut, Egypt. However, massive demonstrations,

199 Ibid.
revolutionary activity and the political instability following them throughout 2011 prevented this part of my research from happening, despite initial permission by the Egyptian Ministry of Administrative Development.

In this paper, I test the effects of religious identity on evaluations of central government by citizens in the following ways. First, I use an ordered probit regression. Second, I use a probit regression with religious identity as an instrumental variable. The dependent variable is the evaluation of central government by citizens. The independent variable of interest is the normative beliefs of citizens about governance, as proxied by the following choice set, which is provided in the form of a multi-response question in my survey questionnaire: {civil rights protection, trade and market regulation, state reinforcement, social aid and collective welfare}. Civil rights protection and market regulation may be characterized as individualist normative beliefs, whereas social aid and state reinforcement as collectivist normative beliefs.

I use religious identity as an instrument rather than the independent variable of interest per se. My theory described above suggests that religious identity matters for evaluations of central government, because it shapes normative beliefs about governance. A citizen who strongly identifies with a collectivist religion is more likely to evaluate positively his central government, because he favors a centralized government that maximizes collective welfare. The opposite holds for a citizen who strongly identifies with an individualist religion. The empirical strategy that I propose is the exact implementation of my theory.

I define religious identity as personal identification with distinct religious traditions and collective ideas for the provision of public goods. I measure collectivist religious identity as citizen attitudes toward the social welfare activity of the dominant religious institution in their community. This is the Russian Orthodox Church in my Russian sample, the Chief Rabbinate of Jerusalem in my Netanya sample, the Jerusalem Islamic Waqf and the Greek-Orthodox Patriarchate of Jerusalem in my Nazareth sample. The relevance and exclusion restrictions hold for both instruments. First, we know that the relevance condition for a valid instrument holds, because there is a negative correlation between individualist religious identity and collectivist normative beliefs. Similarly, we know that there is a positive correlation between collectivist religious identity and collectivist normative beliefs. Second, we know that the exclusion condition for a valid instrument holds, because the religious identity of my respondents is defined by the place and family they were born, which are random. It is unlikely that any other characteristics other than those linked to the location and family of my respondents can be correlated with their religious identity.

I find that collectivist religious identity is a robust instrument for explaining similar collectivist normative beliefs regarding governance. In all collectivist religions of my sample - Russian Orthodoxy, Judaism, Sunni Islam, Greek Orthodoxy and Eastern Catholicism - collectivist religious identity coincides with positive citizen perceptions of centralization. On the contrary, individualist religious identity is a robust instrument for
individualist normative beliefs and thus explains consistently negative effects on evaluations of central government among religious Jews. Therefore, the dichotomy of world religions between collectivist and individualist ones appears to be empirically validated. Adherence to Russian Orthodoxy, Greek Orthodoxy, Eastern Catholicism and Sunni Islam has effects on evaluations of central government through collectivist normative beliefs about governance and the provision of public goods. Adherence to Judaism, in contrast, has two-way effects on evaluations of central government: both as individual identity and as collective ideas for the provision of public goods. The intermediate position of Judaism in the collectivism-individualism divide and the collectivist nature of Eastern Orthodoxy (including its Catholic derivatives in the Middle East) and Islam are therefore empirically consistent.

The paper is structured as follows. In section 2, I discuss the relevant literature on political economy of public goods and bureaucracy in centralized and decentralized states; I treat religion as the instrumental line for the distinction between contractual and hierarchical public goods. In section 3, I provide my theory on religion, public goods and centralization. In section 4, a structured discussion on the politics of intergovernmental relations and the effects of religious identity on local bureaucracies in Russia and Israel is offered. In section 5, I present the data collection process in Lipetsk, Krasnodar, and Sochi, Russia, as well as in Netanya and Nazareth, Israel. I set up and run my empirical models in section 6, and discuss the results in section 7. Conclusions are reached in section 8.

3.2 Literature Review

My paper addresses two bodies of literature. First, it provides new theoretical and empirical findings for the study of religion and economics. It complements the literature on religious collectives as economic systems and the relationship between religious identity, religiosity and economic behavior. Second, it introduces religion in the study of local public goods and intergovernmental relations. It treats centralization and decentralization as bureaucratic best responses to individual preferences for public goods, which are shaped by religious identity.

McBride defines religious economies as economic systems that rely on the demand and supply of religious services; his formal analysis confirms the hypothesis that more religious pluralism leads to higher participation rates into religious life. Nevertheless, McBride remains skeptical about the validity of the pluralism-participation correlations; to make up for this deficiency he points out the role of state regulations in the intensity of supply and demand of religious services. Although he does not elaborate on it, it is clear that administrative decisions can make religious life costlier for citizens while constraining

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201 Ibid.
the number and quality of religious services supplied. He proposes a conventional treatment of religion in public administration; from the government’s perspective, it is yet another policy area that needs to be regulated with statutes, acts and informal practices.

In this paper, I argue that smaller administrations tend to operate in a society, whose dominant religion is individualist and therefore organized as a decentralized economic system. Iannaccone observes that religions that enjoy a monopoly status in a society are less likely to generate high levels of religiosity than religions that are part of a diverse social space; the dependent variable explained by the author’s empirical models is attendance to religious services, a standard metric for religiosity. State regulation of religion is found to be counterproductive to propagation of religion, because it assumes a market monopoly of religious norms and creates counterincentives for attending religious services. On the contrary, the more privatized a religious system is, the more attendance in religious services is observed. This implies that distribution of religious and welfare services occurs at the local level in decentralized religions and at the central level in centralized religions. Thus, religion as a monopolized commodity is equivalent to market failure, because it reduces the influence of religion in society, whereas religion as a private good offered in a competitive market is more likely to attract higher religious attendance rates.

The theory of club goods is extremely useful in understanding the relationship between religious identity and local public goods, because it links decentralization with efficient delivery of material resources by any religious collective. If the religious collective is treated as a club and the goods that it offers to its members as club goods, then administrations can be also modeled as quasi-clubs that derive authority from the religious tradition shared by the majority. Berman has argued that the structure of the ultra-Orthodox kibbutz is very explicit about the use of observance and dietary prohibitions on the haredim as extreme-form taxes on secular activity outside the collective. Thus, the opportunity cost of secular life decreases and members of ultra-Orthodox communities socialize with other members and produce positive externalities for their collectives, such as higher fertility rates.

Gilles and Scotchmer observe that decentralization in club goods provision assumes the existence of only one private good; their model assumes complementarity between club and private goods, and therefore the partition of an economy into identical clubs is
not optimal.\textsuperscript{210} A necessary and sufficient optimality condition in the size of government is the exhaustion of blocking opportunities such that identical agents do not become better off when they trade in a larger economy rather than in the club.\textsuperscript{211} At the same time, they redefine the concept of efficient scale; they argue that assuming complementarity between private and club goods it is more efficient for identical agents to trade among themselves than within the club.\textsuperscript{212} Their theory of club goods suggests that the provision of local public goods is efficient under the condition that citizens preserve the opportunity to conclude labor contracts in neighboring localities. This is certainly the case for Israeli kibbutzim, but not for Eastern Orthodox monasteries and Muslim tariqas.

If local public goods are treated as club goods, shaped by religious identity, then contractual and hierarchical public goods reflect the individualism-collectivism divide in intergovernmental relations. In their study on public goods provision in rural India, Banerjee and Somanathan argue that Scheduled Castes received more public goods in 1991 than in 1971, if one compares them with other minority groups such as Muslims or Christians.\textsuperscript{213} They contend that independence from the politics of the Congress Party and emergence of local representation institutions increased the provision of public goods to Scheduled Casts, and this explains why the relative asymmetries with respect to Scheduled Tribes.\textsuperscript{214} The effect of open political representation on public goods provision and economic development is also underscored by Olken; in his field experiment in 48 randomly assigned Indonesian villages, direct participation in community decision-making processes has had a positive effect on administrative effectiveness (defined as citizen satisfaction and bureaucratic legitimacy), even if the decisions taken are very similar.\textsuperscript{215}

Moreover, social salience has a positive effect on public goods distribution when compared with British or local landlord domination in rural India.\textsuperscript{216} These studies show that in diverse societies public goods matter much more for community preservation. This is why in collectivist societies with individualist minorities taxation becomes the main policy instrument used by the local administration, in order to minimize the endowment differential between wealthier individualist entrepreneurs and poorer collectivist workers. This finding may explain how the central government in Jerusalem has been using local

\textsuperscript{211} Ibid.
\textsuperscript{212} Ibid.
\textsuperscript{214} Ibid.
public goods as the main cohesion mechanism among Jewish, Muslim and Christian local governments in Israel.

As Weingast and Qian suggest, federalism can preserve markets under two conditions. First, if principals are willing to reallocate their information and authority in favor of a lower jurisdiction. And second, if competition among local jurisdictions motivates local politicians to implement policies that maximize collective welfare. By delegating information and authority to lower levels of government, central planners are more likely to stay longer in office, because they can be held accountable for less. This minimizes the cost of hierarchical imperfect monitoring, as inter-jurisdictional financial dependence becomes less important for public goods delivery. Then collectivist local jurisdictions compete among themselves by increasing the level of public goods provision and individualist local jurisdictions by increasing the level of market income that their citizens accumulate. If a state has both collectivist and individualist local governments, then individualist and collectivist minorities are likely to migrate to collectivist and individualist local governments respectively.

Maskin and Tirole indicate that appointed officials have less discretionary power but are more capable of taking technical decisions. Furthermore, non-accountability is strictly preferred to accountability, when there is slow feedback on administrative actions and information acquisition is costly for citizens. Hence, appointed administrations underprovide public goods, but provide better technical expertise to citizens, in comparison with elected ones. I find below that administrative reform in the Russian regions has accelerated feedback on administrative actions and reduced the cost of information acquisition for citizens.

In his analysis on the normative foundations of the administrative state, Cooper identifies five streams of thought: 1. Regime values, constitutional theory and founding thought, 2. Citizenship theory, 3. Social equity, 4. Virtue and 5. Public interest. What can be inferred from the works of Tsai and Cooper is that 1. Administrators do not have the exclusive privilege to define public interest, and 2. The distinction between democracy and dictatorship may not be the only criterion to predict accountability or non-accountability of public authority. Moreover, social equity can provide a normative basis for public goods provision, but it is not its only possible foundation. The notion of citizenship as a contract between a public administration and an individual, which grants bilateral rights and obligations, can be contrasted with an activist administrative state that

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218 Ibid.
219 Ibid.
221 Ibid.
uses public goods provision as a compensation mechanism for income inequality. Thus, my definition of contractual and hierarchical public goods leads to two different types of bureaucracy: a market bureaucracy in the first case, and a planned bureaucracy in the second case.

Roberts argues that the tradeoff between public and private spending matters for the choice between direct taxation and subsidies; to assess their distributional effects, he underscores preference elasticity. It is more efficient to choose subsidies rather than direct taxation in collectivist economies. Under direct taxation, reduced private spending may have adverse effects by raising their initial public goods threshold, and thus making public goods provision more expensive. On the contrary, in individualist economies, direct taxation is more efficient than subsidies, because free-riding is more frequent but also more likely to be punished. In market-based administrations, expected budget revenues from direct taxation are higher compared to those from subsidies, because there is more wealth to tax and less commitment to collective welfare. In plan-based administrations, there is less income to tax and more dependence from government services, which justifies the option of subsidies.

Communities may be better venues to trace the religious roots of public administration and public goods provision. Per Bowles and Gintis communities are much better than markets or states in enforcing norms. This is the case, because trust, mutual support and ongoing social relationships correct for informational asymmetries that are inclined to lead to market failures and free-riding in central bureaucracies. This is why it is more efficient to study the effects of religious identity on centralization at the local level. If free-riding is punished more and altruism is rewarded more in communities due to information revelation, then the same condition holds for the delivery of contractual or hierarchical public goods by local administrations. Religious diversity can certainly lead to more decentralization, but it may also facilitate the transfer of more financial resources toward regions that share the religious beliefs of the majority. The study of local public goods and religious identity in Russia and Israel provides the grounds for a comparative study of intergovernmental relations under different types of religious values and economic systems.

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225 Ibid.
3.3 Theory

Contractual and hierarchical public goods are bureaucratic best responses to citizens and corner equilibrium solutions for collectivist and individualist local governments respectively. Multiple intersections of religion and centralization lead to different equilibrium solutions that systematize the types of local governments and explain how religious identity leads to different levels of public goods provision in centralized and decentralized states. Although the purpose of this essay is not to provide a fully realized model of religion and delegation in local government, it is useful to provide an analytical typology of local public goods before testing my empirical hypotheses.

Table 3.1 Religion and Local Public Goods

<table>
<thead>
<tr>
<th>Religion</th>
<th>Collectivist</th>
<th>Individualist</th>
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<tbody>
<tr>
<td>Centralization</td>
<td>Solidary Public Goods</td>
<td>Contractual Public Goods</td>
</tr>
<tr>
<td>External Accountability</td>
<td>Competitive Public Goods</td>
<td>Complementary Public Goods</td>
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<tr>
<td>Hierarchical Bargaining</td>
<td>Complementary Public Goods</td>
<td>Competitive Public Goods</td>
</tr>
<tr>
<td>Informal Autonomy</td>
<td>Hierarchical Public Goods</td>
<td>Complementary Public Goods</td>
</tr>
<tr>
<td>Internal Accountability</td>
<td>Contractual Public Goods</td>
<td>Solidary Public Goods</td>
</tr>
</tbody>
</table>

In collectivist local administrations \( t^C_{\text{Hierarchical}} \geq t^C_{\text{Complementary}} \geq t^C_{\text{Competitive}} \geq t^C_{\text{Solidary}} \), whereas in individualist local administrations \( t^I_{\text{Contractual}} \leq t^I_{\text{Complementary}} \leq t^I_{\text{Competitive}} \leq t^I_{\text{Solidary}} \). As these inequalities of local public goods thresholds indicate, citizens of an individualist society are better off with an independent local government, whereas citizens living in a collectivist society may be better off with a vertically monitored local government.

A collectivist local government, when it is accountable to central government (internal accountability), is likely to deliver hierarchical public goods, because its mandate depends completely on intergovernmental transfers from the federal center. Furthermore, a collectivist local bureaucrat that must bargain with the center to receive financing for his mandate will deliver competitive public goods. His bargaining policy space is constrained by his financial dependence and the threshold that he needs to fulfill very high such that he needs to seek external resources in order to preserve its mandate and stay in power. The existence of complementary public goods as an equilibrium solution implies that under informal autonomy a collectivist local bureaucrat is inclined to deliver public goods that do not violate the monitoring rules imposed by the central government. The reason for it is that he does not want to risk a reduction of intergovernmental transfers to his budget.

An individualist local government, when it is accountable to citizens (external accountability), is likely to deliver contractual public goods in order to stay in power. Citizens can replace an externally accountable local government through elections or demonstrations. An individualist local bureaucrat that has informal autonomy from the central government is more incentivized to deliver more than what his mandate requires, because there is no formal monitoring mechanism to inflict a costly punishment on him for excessive spending. This is why he is likely to compete with the central government.
toward the provision of local public goods. Moreover, an individualist local bureaucrat under hierarchical bargaining will reduce the volume of local public goods directed to citizens at the expense of the central budget and will therefore deliver complementary public goods.

Hierarchical bargaining favors the collectivist local bureaucrat, whereas informal autonomy favors the individualist local bureaucrat that has to fulfill a high public goods threshold. An example of the first equilibrium is the EU integration paradigm, where regions in the European Union obtained further competencies at the expense of their respective nation-states. In keeping with the second equilibrium, during Russia’s bureaucratic capacity during the transition period of 1990s, the federal center was co-opted by regional leaders and private business groups. Religion may help explain why local bureaucracies were providing public goods complementary to the federal government. Local governments under Putin deliver hierarchical public goods, as they combine a collectivist religion (Eastern Orthodoxy) with internal accountability in the administration. As Israeli local governments enjoy informal autonomy from the central administration, the intermediate equilibrium solution is complementary public goods for Sunni Muslim and Christian (Greek-Orthodox and Eastern Catholic) local governments, and competitive public goods for Jewish local governments.

Solidary public goods constitute the least desirable equilibrium solution for both individualist and collectivist local governments and their citizens. In societies, where an individualist religion dominates, the provision of solidary public goods suggests the most extreme form of under-fulfillment in the delivery of contractual public goods. This is seen as both morally reprehensible and a reducer of optimal wage. In societies, where a collectivist religion dominates, the provision of solidary public goods is also treated as under-fulfillment of hierarchical public goods. It reveals lack of hierarchical coordination and entails welfare losses for citizens.

Thus, contractual public goods incentivize citizens to higher levels of labor effort, whereas hierarchical public goods lead to less labor effort and thus lower market wages. Citizens work less because both the local administration delivers more with respect to their initial endowment and the marginal rate of substitution between hierarchical public goods and private endowment is lower such that

$$\frac{MU_c}{MU_{cw}} \geq \frac{MU_h}{MU_{hw}} \Rightarrow MRS_{cw} \geq MRS_{hw}$$

where $MU_c$ is the marginal utility of contractual public goods and $MU_h$ is the marginal utility of hierarchical public goods and $MU_{cw}$ is the marginal utility of market wage. Hence, an individualist minority in a collectivist society receives a lower than expected wage and more than expected public goods, whereas a collectivist minority in an individualist society receives a higher than expected wage and less than expected public goods. This observation justifies the definition of local administration as quasi-club, since it provides public goods after observing the religious norms that influence the majority. While minorities are not formally excluded, they are certainly not taken into account when local
bureaucrats decide their best response. The aforementioned analysis leads to the following proposition:

**Proposition 1**
Collectivist local administrations are perceived as effective by citizens iff \( t^C_i \in [t^C_{\text{Canonical}}, t^C_{\text{Complementary}} - \varepsilon) \) and ineffective iff \( t^C_i \in [t^C_{\text{Competitive}} + \varepsilon, t^C_{\text{Solidary}}] \).

**Corollary 1**
Individualist local administrations perceived as effective by citizens iff \( t^I_i \in [t^I_{\text{Contractual}}, t^I_{\text{Competitive}} + \varepsilon] \) and ineffective iff \( t^I_i \in (t^I_{\text{Complementary}} - \varepsilon, t^I_{\text{Solidary}}] \).

**Proof:** If a collectivist local administration delivers less than \( t^C_{\text{Complementary}} - \varepsilon \) such that \( \sigma^C < t^C_{\text{Complementary}} - \varepsilon \) and \( \sigma^C \in [t^C_{\text{Competitive}} + \varepsilon, t^C_{\text{Solidary}}] \), where \( \sigma^C \) the delivered public good by a collectivist local administration, then \( \frac{MU_c}{MU_w} < \frac{MU_h}{MU_w} \) and people will demand the dissolution of the current hierarchy and its replacement with an independent local government that provides them contractual public goods. Similarly, if an individualist local administration provides more than \( t^I_{\text{Competitive}} + \varepsilon \) such that \( \sigma^I \geq t^I_{\text{Competitive}} + \varepsilon \) and \( \sigma^I \in (t^I_{\text{Complementary}} - \varepsilon, t^I_{\text{Solidary}}] \), where \( \sigma^I \) the delivered public good by an individualist local administration, then \( \lim_{\sigma^I \to t^I_{\text{Solidary}}} \frac{MU_c}{MU_w} = 1 \) and people will demand the replacement of an independent local government with another one that is more market-driven. When a collectivist hierarchy that delivers more than is expected is replaced with a more efficient hierarchy and when it delivers less, then decentralization incentives prevails. On the contrary, ineffective local governments in individualism are always replaced with other independent local governments. Decentralization is always a much more stable institutional equilibrium than centralization.

### 3.4 Governance and Reform in Russian and Israeli Cities

Local administrations in Protestant and Catholic societies are likely to deliver public goods based on social contracts that they have concluded with citizens. Social contracts mirror the legalized core of sin and charity, which defines Roman Catholic and even more so Protestant theology, in its Lutheran and Calvinist branches. Similarly, local administrations in Muslim and Orthodox societies treat the provision of public goods as guarantees of collective welfare and social justice. Administrative effectiveness in collectivist religions is not an indication of the government’s ability to abide by its prior obligations, but a revelation of its commitment to fight poverty and alleviate inequality. Failure to stand by this commitment constitutes the core of sin in Orthodox and Muslim collectives, and by extension in the political communities that were shaped after their normative principles. The Israeli administrative state combines elements of both
contractual and hierarchical public goods, as Judaism lies in the midpoint of the collectivism-individualism continuum.

In the aftermath of its Soviet collapse, Russia maintained the administrative units of the Russian Federative Soviet Socialist Republic (RSFSR). The Russian Federation became the official successor state to the Soviet Union and in the beginning it consisted of 89 regions (krais, oblasts, autonomous republics and cities), including the country’s two major urban areas, Moscow and St. Petersburg. Since 2008, the number of these regions has been reduced to 83. Furthermore, since 2000 the country has been divided into seven and then eight administrative districts with the addition of the Northern Caucasus federal district, which was separated from the Southern federal district. The heads of those districts have the right of oversight on the political and economic decisions taken by regional governors. Although Russia is formally a federal government, the abrogation of regional elections and the appointment of presidential envoys as heads of the eight administrative districts have signaled a partial return to the unitary structure of the Soviet government.

Local governments in Russia passed through multiple phases in their financial dependence from Moscow. Blanchard and Shleifer suggest that corruption and rent-seeking by local government officials combined with deficient oversight by the central government explain why Chinese local governments facilitated the growth of new firms and thus foster the economy, while their Russian counterparts did not.227 Their paper provides an accurate analysis of the perils derived for public administration and intergovernmental relations because of Russia’s dysfunctional democracy in the 1990s. Furthermore, asymmetries in bilateral bargaining between the federal center and many regions indicate the differential leverage of regional governors on intergovernmental transfers, which were formally decided by Moscow.228 Zhuravskaya proposes that revenue-sharing agreements with regional governments offset the positive effects of revenue accumulation by Russian local governments and thus the creation of a self-sufficient revenue base at the local level.229 This is why fiscal incentives to local governments are essential for private sector development and economic growth in the Russian regions; if localities do not have the formal and institutional capacity to collect their own money, then they are not able to provide efficiently public goods.230 In the 1990s, the creation of a third layer of government in the Russian Federation was expected exactly to reduce widespread corruption at the

regional level; further decentralization was considered to be effective for an economic system plagued by highly centralized institutions and deficient tax collection.

Imperfect central monitoring of regional budgets facilitated the emergence of informal fiscal autonomy at the subnational level at the expense of social welfare, business and investment climate and revenue accumulation, particularly for the central government. As Litwack observes, the standard tradeoff between central control and decentralization does not hold in Russia; it is necessary to combine the benefits from decentralized budgetary management with a set of centralized distributive policies against poverty and inequality. Decentralization can only be effective, if central control is complementary to regional tax autonomy and offsets the welfare effects of private sector developments in the regions with more social policy for the weaker income strata of the society.

The logic of this argument is further developed in Popov’s analysis of Russian fiscal federalism; he argues that the flow of intergovernmental transfer depended on the level of support that regional authorities and electoral constituencies showed for the federal center. Contrary to previous research, which underscored opposition to the federal center as a key condition for more federal funding, he observes that the federal center throughout the 1990s and in early 2000s has been punishing systematically those regions, whose administrations did not maintain good relations with the federal government or whose citizens were voting for anti-Moscow political parties in the presidential or parliamentary elections. The three equilibria he proposes are the following: 1. Authoritarian symmetrical federalism, 2. Democratic symmetrical federalism and 3. Loosening of the federation; it is clear that he expects the first type of federalism to be the definitive one for Russian intergovernmental relations in the 2000s under Putin.

The ongoing administrative reform in Russian regions has been designed by the federal government and implemented by regional administration, with the partial financial support of the World Bank. The transfer of tax collecting competencies from the federal to regional governments, or from regional to city or district administrations create a series of multiple principal-agent relationships across all levels of Russia’s federative structure. This is particularly evident in the area of social policy, where the Pension Fund remains part of the federal administration, but regional governments are entitled to provide special assistance bills to war veterans and other special social groups with federal budgetary means and through their own administrative channels. The transfer of federal competencies to regional authorities occurs on the basis of a bilateral written agreement, which is binding for both sides; the same normative condition holds for

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232 Ibid.
234 Ibid.
235 Ibid.
competency transfers that have the inverse direction, i.e. from regional to federal administrative agencies.\textsuperscript{236}

However, any regional government is obliged to report to the federal government its progress toward the goals underlying the functions of subnational government institutions such as local economic development, preservation of constitutional order, rule of law, unity of state power and others.\textsuperscript{237} Moreover, federal institutions can take up competencies of the regional administration for a temporary period of time in the following cases: 1. Natural catastrophe or other emergency situation, 2. Indebtedness of the regional budget or 3. Provision of illegal subsidies extracted from the federal budget as part of a competency transfer agreement that grants federal powers to a regional administration.\textsuperscript{238} Contrary to what one would expect from a normal federal system, the federal government in Russia is entitled to monitor and evaluate the performance of regional governments rather than the other way round. The obligation of regional governments to report to the Russian President on budgetary implementation and achieved policy targets constitutes a powerful analogy with the report obligation of managers to planners under the Soviet system of incentives – both old and new – and central planning. The main difference between now and then is that the central planning of the federal government under Putin is reduced to public administration and excludes small and medium production units and larger conglomerates. The implementation of this centralized monitoring system that originates at the federal level assumes that the federal government is much more efficient in resource extraction than its regional, let alone local, counterparts.

The emergence of local government institutions did not occur in order to constrain the mandate of the federal government and reduce its control – a practice followed by EU institutions through the principle of subsidiarity. On the contrary, the federal government in Russia has taken serious steps toward the modernization of regional and local administrations in order to compensate welfare losses, induced by the centralization of all major political and economic competencies. This conditionality tradeoff between centralization and decentralization is reflected in recent legal initiatives that entered into force as formal laws. Access to information such as budgetary data or laws stating further individual and social rights of citizens has been granted to citizens as a mechanism to check on their local governments.\textsuperscript{239} Moreover, the detailed enumeration of local government functions and the rights of citizens at the local level such as declaration of referendums, law-making proposals, accountability of city council members, regularity of


\textsuperscript{237} Ibid: Articles 26.3.2 and 1. Article 26.3.2 was introduced as an addition to the original text by \textit{Federal Law} No. 284, December 29, 2006 (In Russian).

\textsuperscript{238} Ibid: Article 26.9.1.

elections, budgetary discipline and other institutions of collective action do not constitute of course elements of decentralization.\textsuperscript{240} They all intend to correct or minimize informational inefficiencies that used to hamper central control in Russia both under central planning and early transition.

That way, modernization as partial decentralization improves the quality of delivered public goods, while increasing the monitoring capacity and set of competencies transferred to Moscow. Separating regional and local politics from competitive pressures on public budgeting neutralizes subnational political competition in favor of the federal center. Since a substantial portion of regional and local competencies are federal competencies delegated to those authorities, it is self-evident how easily can the center empower or weaken a regional governor or mayor. Federal subsidies to regional and local budgets form a key instrument in Russian intergovernmental relations.\textsuperscript{241}

The most recent law on local self-government continues the same logic of administrative development in Russian intergovernmental relations.\textsuperscript{242} First, it becomes clear that the same system of subsidies that preserves the dependence of regional governments from Moscow holds for local government budgets and their reliance on subsidies by the regional center.\textsuperscript{243} Second, the provision of state and municipal services may occur formally at the local level, but the management and financing of this transformation takes place purely on regional and federal budgetary means. The emergence of municipal services as a distinctive category in the provision of public goods indicates the hierarchical expansion of the Russian government and confirms the observation that higher transparency at lower levels of government increases the monitoring capacity of the federal center. This is the role of the networks of multifunctional centers for the provision of state and municipal services (from now on – MFCs).

An MFC is designed to be an autonomous administrative unit that interconnects public agencies at all levels of government that deliver services to citizens. Electronic governance including the introduction of advanced informational systems in the delivery of pensions and other forms of social assistance, certificates for environment-friendly businesses and unemployment bonuses are only a few of the services provided in the MFCs, whose reach is constantly expanding beyond major Russian cities such as Moscow, St. Petersburg, Novosibirsk and Kazan.\textsuperscript{244}

The formation of an MFC requires a trilateral agreement among the regional administration, the administration of any municipal district within the boundaries of that


\textsuperscript{241} Ibid: Article 18.2.


\textsuperscript{243} Ibid: Article 2.1. Also see Articles 71-72 of the Constitution of the Russian Federation.

\textsuperscript{244} Ibid: Articles 2 and 3.
region, and a federal administrative agency that decides to delegate its mandate to the municipal administration. This delegation agreement makes everybody better off. The federal government increases its monitoring capacity over regions and municipal districts by rationalizing the administrative process; from a political standpoint, it is always able to hold regional or municipal authorities accountable for underperforming toward the fulfillment of their delegated competencies. The regional government becomes the common interest denominator between Moscow and the municipalities. Given the absence of formal elections for the appointment of regional governors, an efficient oversight of public goods provision at the local level becomes a sine qua non condition for the political survival of the governor and his administrative apparatus.

At the same time, the local government becomes a new but overly constrained actor in the newly centralized Russian state. On the one hand, the local government receives immense budgetary support by federal and regional authorities and becomes politically visible – if not significant – in the system of Russian intergovernmental relations. On the other hand, the mayor or the district head is the easiest to replace in case of public mismanagement or administrative failures that have their origins in pathologies of central planning, far beyond his reach. In that sense, the head of local government is accountable both to his regional and to his federal counterparts, because he fulfills most of their citizen-related mandates, and receives budgetary support for that purpose.

The role of MFCs as institutions, where citizens receive social assistance, advance their economic activity or confirm their citizenship, is crucial for understanding the political economy of administrative reform under Putin. Expert reports and external monitoring materials do their best to suggest that the opportunity cost of authoritarianism in the Russian case is not as high as one would think; while the objectivity of these materials is highly questionable, the fact that the World Bank and other international donor organizations such as the DFID have been actively involved in the promotion of Russian administrative reform confirms the continued interest of the international community for the transformation of the Russian bureaucracy. The monitoring report on MFC effectiveness in the city of Lipetsk underscored the challenges in pooling the resources of administrative agencies of different levels of government into a single working space, training specialists in electronic governance, and implementing the single-

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245 For a thorough understanding of this trilateral agreement, see “Trilateral agreement on the interaction of Lipetsk regional administration, a federal organ of executive authority and a municipal district administration on the question of service provision by a multifunctional center for the provision of state and municipal services” (In Russian). See also State Duma of the Russian Federation. “On the Delivery Organization of State and Municipal Services”, Federal Law No. 210, July 27 2010, Article 5.5 (In Russian).

window principle. Furthermore, the monitoring report on the MFC network in Lipetsk oblast noted significant differences across its seven centers, mostly related to the perpetuation of long lines and the willingness of federal authorities to delegate delivery of their services outside the regional capital. Thus, the provision of state and municipal services through local government channels is efficient if and only if there is effective vertical monitoring with multiple hierarchical checks from Moscow to the regional center and from the regional center to the city or district level.

There are currently around 50 MFCs in 35 Russian regions and their number is constantly growing. Moreover, for the creation and running of MFCs, regional budgets contributed 79% of the total cost and the federal budget contributed 21%. The responsiveness of local administration to citizen demands has therefore increased and the introduction of private sector practices through the single-window system raises the operational standards for an administrative state, which was always considered archaic, ineffective and distant from the direct needs of its citizens.

MFCs have established a significant precedent on how local governments should work; the reduction of transaction and budgetary costs for regional and city administrations, the minimization of low-level administrative corruption and the efficient pooling of financial resources from all levels of government count as attainments of the administrative reform. The reinforcement of city governments in the provision of public goods is positive also for citizens that live in village or remote areas and have never had the same access to public goods and social services that urban residents have traditionally had, particularly during Soviet times. Social welfare services constitute a major percentage of the services delivered in most MFCs. The usual distinction that I noticed in the MFCs that I visited is between MFCs specialized in social welfare services and MFCs specialized in land privatization and business licensing. Obviously, in cities like Lipetsk or Tomsk where the population is on or below the national average in terms of living standards social welfare provision is a first priority, whereas in Krasnodar or Sochi, cities with a thriving middle class, land privatization, infrastructural development and licensing of new SMEs have been the main MFC focus.

The administrative reform in Russian regions occurs under conditions of internal accountability. That way, local government leaders become disposable, since the federal center with or without the consent of the regional administration can replace them based on their failure to deliver the required public goods and social services to citizens.

249 Ibid.
250 Ibid.
251 There was a consistent effort by all regional and city bureaucrats I talked to in Lipetsk, Krasnodar and Sochi to convince me that the administrative reform signaled a shift of Russia toward the group of advanced national economies.
Russian administrative state has found an efficient equilibrium that includes positive elements of decentralization in a centralized government. Openness and transparency are used more as internal accountability checks and less as efficiency-maximizing constraints on the utilities of local and regional administrations. The federal government is the initial instigator and the ultimate beneficiary of this modernization process, while holding local and regional administrations accountable, when negative evaluations occur.

The administrative division of Israel into districts and local governments has been influenced by religious and ethnic conflict, key in its emergence and throughout the 20th century. Democracy in Israel has been constrained by differences in intergovernmental transfers, if one compares the state funding toward Jewish and Arab local governments. At the same time, Arabs in Israel have enjoyed their basic civil and social rights such that the opportunity cost of their Israeli citizenship approximates zero. Transparency and fiscal performance are key accountability factors for local governments in Israel. Local authorities are divided into 75 cities, which are urban settlements with more than 20,000 people, 127 local councils, which may be towns, villages or kibbutzim with a population between 5,000 and 20,000 people, and 53 regional councils, which may also be urban, rural or communal and are located in remote geographic areas. Intergovernmental transfers can take place in two ways: 1. As earmarked grants, which are used to finance the fulfillment of delegated competencies from the center to the localities, and 2. As general grants sent by the Ministry of the Interior.

Bender explores the question whether Israeli voters in local elections take into account the fiscal performance of mayors in order to support them or not. He concludes that fiscal performance did not affect the voters’ choices in the elections of 1989 and 1993, but it did play a significant role in the election of 1998 for the following reasons: 1. The influence of the national parties diminished between 1993 and 1998, as the quality of public goods and social services became more important, 2. The accounting standards imposed on localities by the Ministry of the Interior reduced informational asymmetries between the mayor and the electorate, and 3. The rise of property taxes constituted a powerful indicator of a mayor’s poor fiscal performance.

The development of local authorities in Israel was largely the outcome of centralized planning and governmental intentionality toward redistribution and immigrant absorption. Gaps in socioeconomic circumstances between Jewish and Arab

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communities or Orthodox and secular Jews or Ashkenazi and Sephardic Jews provide the basis for institutional and economic partitions within the set of Israeli local governments.\textsuperscript{257} Moreover, positive responsiveness to public goods and social services is conditioned by high-level human resources and the introduction of private sector norms into local governments.\textsuperscript{258}

Nevertheless, it is ethnic and religious divisions that make the study of local governments in Israel so important. While local governments are the only institutions where Arab citizens can assume leadership and head a community, the central government of Israel does not allow much policy discretion at the local level.\textsuperscript{259} The Ministry of the Interior preserves its monitoring mandate over local budgets, elections for the appointment of mayors and counselors, and the current administration.\textsuperscript{260} Galnoor also argues that even local services such as education, employment or social welfare are regulated in practice by the capital in Jerusalem.\textsuperscript{261} Intensive privatization policies and tactical outsourcing to private organizations for the provision of public goods reveal the intention of the national government to constrain the autonomy of local authorities; this distrust toward local institutions has been certainly aggravated by the ongoing conflict that undermines many efforts for further consolidation of subnational self-government.\textsuperscript{262}

However, the introduction of nation-wide municipal elections in 1975 facilitated the emergence of a strong mayor system, where formal centralization has been offset with informal decentralization practices; as Dery argues, informal decentralization was inclined to generate higher budget deficits while meeting the demand of local authorities for more policy discretion and independence from central government.\textsuperscript{263} The conflict of political incentives held by the central government with policy implementation incentives held by the local government leads to the following intermediate equilibrium.\textsuperscript{264} The national center decides the set of candidates and the funding that the mayor will have available to complete his office tasks. And the local authority chooses a spending policy that maximizes the mayor’s reelection probability and meets the majority threshold.

The inclusion of Arab citizens to the local political process, the emergence of Arab mayors and the political mobilization of the Arab population in the Islamic Movement, the


\textsuperscript{261} Ibid: 45.

\textsuperscript{262} Ibid: 150 and 162-163.


\textsuperscript{264} Ibid: 52-53.
Progressive List for Peace or the Democratic Party have consolidated local identity since the early 1980s. Unlike Jewish local governments, whose political officials reflect the power of national parties and the socio-economic profile of their voters, Arab local authorities continue to be defined by religious (Muslim vs. Christian), kinship and family ties; this reality contributes to the political underdevelopment of the Arab sector, which then undermines the incentives of elected officials for economic and political modernization at the community level.

Political pluralism in Israel is furthered when local governments gain in political significance and budgetary autonomy. The involvement of the judiciary in cases of municipal boundary change transforms it into a veto player in economic disputes among local parties and interest groups, between businesses and the local government, or local and central governments. The competition between the Ministry of the Interior and the High Court of Justice was a result of increasing pluralism in domestic politics. It is evident that judicial activism can lead to precedents whose ambiguity and normative authority can constrain the policy monopoly of the central government and provide an alternative source of legitimate power in the regulation of municipal affairs. Local government autonomy is certainly more important for Arabs than for Jews; within the Arab cluster, more important for Christians than for Muslims; and within the Jewish cluster, more important for Mizrahi or Orthodox Jews than for secular Ashkenazi Jews. The poor financial performance of local governments can be interpreted in two ways: as either a policy discretion failure that reveals the managerial incompetence of the mayor and local bureaucracy or a central coordination failure due to insufficient intergovernmental transfers and overlapping mandates between ministries in central government.

Unlike Russia, where local governments are used as service outlets for the federal and regional governments, while being held accountable for the shortcomings of their administrative apparatus, in Israel monitoring structures have been less efficient and local governments have been more shaped by ethnic divisions, political competition, family and interest groups. The higher level of centralization in Russia facilitates the provision of

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268 Ibid.
269 Ibid: 529-530.
270 Ibid.
local public goods, because incompetent local bureaucrats can be easily replaced by regional and federal authorities. In Israel, in contrast, individual preferences for more public goods are compensated by independence of local governments and their direct replacement by citizens. Religion influences both citizen demand for public goods and the perceived effectiveness of local governments in the provision of public goods. Russian Orthodoxy, Greek Orthodoxy, Eastern Catholicism and Sunni Islam lead to individual preferences for more public goods and local governments that are fully monitored by the center for that purpose. Judaism, in contrast, generates a moderate demand for public goods and an informal autonomy of local governments from the center.

3.5 Data

I collected the data for this paper by distributing survey questionnaires to citizens visiting the multifunctional centers for the provision of state and municipal services in the cities of Lipetsk, Krasnodar and Sochi in Russia, and in the city governments of Netanya and Nazareth in Israel. I excluded people who were below 18 years old or were not residents of that city; participation was voluntary. Approximately one third of randomly approached respondents accepted to fill out my questionnaire. The data were collected during the academic year 2010-2011. Before providing the descriptive statistics, I would like to address some factors that certainly affect sample representativeness. In my Russian fieldwork, many elderly people were not able to fill out my questionnaire due to bad health or illiteracy. Moreover, because men were usually working during the opening hours of multifunctional centers for the provision of state and municipal services and if they were there, they were usually in bad mood, women ended up forming the majority of my Russian respondents. In my Israeli fieldwork, my questionnaires were mainly distributed in the tax and water departments of the municipal governments in Netanya and Nazareth. The primary reason for that was that they were the only two departments in both city administrations that had opening hours for the public. Furthermore, the introduction of electronic governance into service distribution had certainly an effect on the representativeness of my sample. The choice of Lipetsk, Krasnodar and Sochi in Russia as fieldwork sites provides useful quantitative evidence for the relationship of the Russian Orthodox lower middle class to its administrative state. Similarly, the choice of Netanya and Nazareth as representative sites of the financially rising Jewish sector and the moderate Arab sector suggests an insightful path for the influence of religious traditions on local government evaluation in a multi-confessional state that has been plagued by religious conflict since its very establishment.

1. Age, Sex, Education, Income, Employment Status

Table 3.2 provides no surprises about the socioeconomic profile of my Russian and Israeli samples. Lipetsk is poorer than Krasnodar or Sochi and has higher rates of unemployment. The same observation holds for Nazareth with respect to Netanya.
Education level follows a similar pattern with Russians enjoying much higher rates of higher education than Israelis. Nevertheless, in my Israeli sample the monthly income distribution is much more balanced than in my Russian sample where a significantly larger fraction of the data is below the median income (compare figures 3.2a and 3.2b with figures 3.1a and 3.1b below). It is interesting that while in the Russian cities of my sample and Netanya women outbalance men in response rates (two thirds vs. one third roughly in all four cases), in Nazareth the inverse is the case. Similarly, Russian respondents are much younger than Israeli respondents, as Russian people have always been more expressive about their views, even under socialism.

2. Administrative Services and Public Goods

Administrative services are the instruments for public goods provision. Respondents that were visiting the respective MFCs in Russia listed all the services that they came to request from the public administration. The same did respondents that were visiting the respective local governments in Israel. As table 3.3 indicates (in the Appendix), MFCs in Russia adjusted to the socioeconomic conditions of their urban environment. Social welfare services in Lipetsk, a city of agricultural businesses, Soviet-style industry and civil servants, are much more important and therefore have been a first priority for the regional and local governments. On the contrary, in Krasnodar and Sochi, small and medium enterprises justify the big demand for land privatization; social welfare services are only marginal in those two MFCs that operate on the basis of the single-window principle. In Nazareth, citizens primarily visit the municipal taxes department. The interaction with the other offices of the municipality is sporadic and inconsistent. Netanya has a more extensive local government apparatus, with a key focus on infrastructure permits and land development.

3. Local Government and Central Control

Figures 3.3 and 3.4 suggest that Russian respondents are much more satisfied with the provision of administrative services at MFCs than Israelis with the effectiveness of local governments. An initial interpretation would be that Russians see MFCs as a break from Soviet bureaucratic inefficiencies, including rampant corruption and delays in the delivery of public goods. At the same time, Israelis maintain a higher level of distrust toward their local governments, since they have to live with the consequences that informal autonomy entails: more cronyism, understaffed service desks, and central intervention into local economic policy. Moreover, conditions of institutional reform in Russia are contrasted with Israel’s institutional stagnation, as it is always much harder to reform local governments in democracies than in dictatorships. In their evaluation of central government, Israelis state that it has more competent bureaucrats and their treatment there is better and more personalized (Table 3.4 in the Appendix). On the other hand, Russian respondents seem to be much more satisfied with the current situation and the presence of MFCs in their cities; they do not feel nostalgic about their encounters with
federal and regional administrative agencies (Table 3.4 in the Appendix). Preference for central control is treated as a substitute to preference for administrative services by subnational institutions.

4. **Social Welfare and Centralization**

When respondents are asked to choose whether they would prefer receiving social welfare services from the central or the local government - including a local-level intermediary such as the MFC - both Russians and Israelis express their preference for centralized social welfare (Figure 3.5 in the Appendix). While Israeli responses are in accordance with their preferences for central control, Russian responses are surprising not only because they indicate a stronger preference for centralized social welfare compared to Israelis, but also compared to their preference for MFCs in the previous question. It is clear that unlike local governments in Israel, MFCs in Russia cannot be treated as competitive institutions to the central government, but as complementary ones.

5. **Public Interest**

The tradeoff between public and private services in administrative institutions is instrumental for deciphering the public interest preferences of citizens. The inclusion of private interests in the provision of administrative services makes a solid case for public sector deficiencies in the provision of public goods. Russian respondents opt for subnational administrations with a *stricto sensu* public core, whereas Israeli respondents seem more likely to advocate privatization of public services and thus the provision of public goods by entrepreneurs (Figure 3.6 in the Appendix). The definition of the public domain is uniform in the Russian sample and much more diverse in the Israeli sample.

6. **Political Identity**

In Israel I follow the standard distinction between the Right, the Center and the Left, as it is exemplified by the three dominant parties: Likud, Kadima and Avoda. In Russia where party life is severely hindered by the monopoly of United Russia I preferred to resort to more classical ideological distinctions, which draw their reference to the 1990s when the Russian political system was more open, despite its economic failures. A communist is usually a voter of the Russian Communist Party (CPRF), a socialist is likely to be a voter of Just Russia or another coalition of left forces to the right of CPRF, a liberal is a voter of Zhirinovsky or a proponent of market reforms and entrepreneurship, a democrat is in support of regime opposition and a patriot is usually a voter of United Russia and a supporter of Putin’s government. As it becomes evident from table 3.5a (in the Appendix), communists and patriots are those who treat their political identity as utmost important, while the majority of respondents indicate strongly their disdain toward any version of politics. In Israel, right-wing respondents seem to feel most strongly about their political beliefs and the apolitical stance is present, although not as strong as it
is in Russia (table 3.6a in the Appendix). The data confirms observations that we already know from reality: the Russian Electoral College is constrained by the Patriotic Right-Communist Left radicalism, where the Israeli Electoral College by the dominance of Likud.

7. Religious Identity I: Affiliation and Ethnic Background

In Russia, the majority of my respondents are Eastern Orthodox, whereas in Israel the Jewish majority of my respondents is complemented by a significant portion of Muslims and Christians, primarily Roman Catholic and Eastern Orthodox (tables 3.5b and 3.6b in the Appendix). Eastern Orthodox respondents in Russia surpass Jewish, Muslim or Christian respondents in Israel in terms of the significance they attach to their religious affiliation. Armenians and Jews in Russia are the other two religious groups that feel very strongly about their religious tradition. The Jewish respondents of my Israeli sample are certainly the most religiously conscious group, while this level of religious consciousness monotonically decreases for Muslims and Christians. Oriental Jews outnumber European Jews in Netanya by a small margin (Figure 3.8), whereas Sunni Arabs are the clear majority of my Nazareth sample (Figure 3.7). It is interesting to see that the number of Nazareth respondents that identify themselves as Israeli Arabs slightly exceeds those identifying themselves as Palestinians; Christians appear to defend their Israeli identity much more consistently than their Muslim counterparts who seem to be split between their Israeli citizenship and the perspective of Palestine (Figure 3.9 and Table 3.7 in the Appendix).


Religious institutions matter for their social welfare activity, since one of the primary goals of any religious tradition is to alleviate human pain among its members with poverty and illness being the two major forms of human pain both in advanced and developing societies. I identify the four major religious institutions in Russia and Israel given the religious affiliation of my respondents: the Russian Orthodox Church, the Chief Rabbinate of Jerusalem, the Jerusalem Islamic Waqf and the Greek-Orthodox Church of Jerusalem. The Russian Orthodox Church scores the highest among Russian respondents, whereas the Jerusalem Islamic Waqf is much more popular in relative terms than the Chief Rabbinate or the Orthodox Patriarchate (Table 3.8 in the Appendix). Based on my distinction between hierarchical and contractual public goods, it seems that the Russian Orthodox Church and the Jerusalem Islamic Waqf are much more likely to meet the demand of a collectivist society than the Greek-Orthodox Church of Jerusalem or the Chief Rabbinate of Jerusalem.

9. Governance
To substantiate the Weberian hypothesis on the effect of normative beliefs on the evaluation of government, I asked a multi-response question about governance, expecting more religious citizens to answer social aid or state reinforcement and less religious respondents to answer civil rights or market regulation. Collectivist responses dominate individualist ones both in Russia and Israel; nevertheless, a difference of degrees holds. Russia is much more collectivist than Israel, which gives some good initial evidence on my single-dimensional ranking of world religions across the collectivism-individualism poles (Table 3.9 in the Appendix).

10. Evaluation of Government Performance (Central and Local)

Russians appear to have less balanced views than Israelis in my sample. They are very satisfied with the ongoing administrative reform; however, they are not happy at all with central political authority (Tables 3.10a and 3.10b in the Appendix). As it was not possible to ask in Russia a direct question about what citizens think of the federal government, I thought that this was the best way to get around possible censorship obstacles. Nazareth respondents are the most resentful toward central government compared to Netanya, Lipetsk, Krasnodar or Sochi respondents. Israeli respondents overall have less appreciation for their local governments than the Russians and are not as opposed to their federal and regional authorities as the Russians do. The Jewish-Arab difference is of course crucial here in that respect.

3.6 Empirical Strategies

Based on the aforementioned theoretical analysis and data presentation I suggest the following set of hypotheses:

**Hypothesis 1:** Citizens who identify strongly with collectivist rather than individualist religions are likely to evaluate their central government positively.

**Corollary 1:** Citizens that prefer centralized distribution of social welfare are more likely to positively evaluate their central government.

This hypothesis assumes that in collectivist religions religious identity has positive effects on attitudes toward centralization; dependence from hierarchical rather than contractual public goods makes citizens more willing to express a positive view on their central government. Similarly, the low opportunity cost of centralized social welfare in collectivist economies is due to the absence of a thriving private sector and therefore preserves the hierarchical relationship between citizens and the state.

**Hypothesis 2:** Citizens with collectivist rather than individualist normative beliefs are likely to positively evaluate their central government.

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273 The Weberian hypothesis states that citizens decide their attitude towards their government based on their normative priors as these are shaped by religion.
This hypothesis involves the four types of normative beliefs, which I listed in the questionnaire and I divide into two sets such that:

collectivist normative beliefs $\in \{\text{state reinforcement, social aid}\}$

individualist normative beliefs $\in \{\text{civil rights, market regulation}\}$.

Religious citizens in collectivist religions are more likely to have collectivist normative beliefs and thus abide by their central government. Furthermore, the pressure for the delivery of hierarchical public goods undermines the bargaining capacity of local governments toward the center and minimizes informal autonomy in financial management at the local level. Thus, local governments are always seen as extensions of central governments in collectivist rather than in individualist societies.

**Hypothesis 3:** In collectivist societies, collectivist religious identity matters positively for perceptions of centralization.

**Corollary 3:** Individualist religious identity has negative effects on perceptions of centralization.

The distinction between individual identity and collective ideas regarding the provision of public goods is important for understanding the effects of religious identity on centralization in individualist and collectivist societies. Faith in Protestantism and Roman Catholicism is synonymous to isolation, legalized punishment in case of deviation and personal freedom, which creates an abstinence from state intervention into private affairs such as family, income and career development. Faith in Eastern Orthodoxy and Islam is inherently defined by communal life and its institutions. Those institutions are more centralized in Eastern Orthodoxy and more decentralized in Islam; nevertheless, they constitute the core of religious life for any individual no matter whether he goes to the church or not. In individualism faith is private, whereas in collectivism it is public. Citizens with individualist normative beliefs treat government as an obstacle for their self-fulfillment, whereas citizens with collectivist normative beliefs regard it as a complement.

**Hypothesis 4:** Citizens evaluate their central government positively, when it provides them with a minimum of public goods and social services.

**Corollary 4:** Poorer rather than wealthier citizens are more likely to evaluate positively their central government.

This is a set of competing propositions to the hypotheses presented above. Rather than stressing the effect of religious identity on perceptions of centralization, it may be the case that citizens are not influenced by normative beliefs on the purpose of government but by material needs. Poorer citizens are therefore more likely to evaluate positively their central government, because they need it more in order to survive, whereas wealthier citizens see it as an obstruction to profit accumulation.

**Hypothesis 5:** Politicized rather than apolitical citizens are harsher critics of their central government.

I use here political ideology as a factor substitute to religious identity or wealth. Given that both Russia and Israel are heavily polarized societies, I control for political ideology in order to make my theory of religious identity and centralization much more convincing. The argument that religious identity can be treated as political ideology or basis for party
formation is not new. It has been often the case that people treat religion as a political cause of peace and justice against a repressive government or in order to defend themselves against violations of human rights. The political repression that occurs implicitly these days in Russia may give grounds for political mobilization in the name of religion, as it has been the case in Hungary under socialism. Similarly in Israel, the conflict between Jews and Arabs, and more broadly, Judaism and Islam – with Christianity holding a midpoint between the two – has intertwined religious identity as both individual identity and collective ideas regarding the provision of public goods with political mobilization and civil war.

To test my hypotheses I first use an ordered probit model that has the following form, which is well-known from theory:

\[ Y_i = \beta_0 + \beta_1 \text{Governance}_i + \beta_2 PIdentity_i + \beta_3 Politics_i + \beta_4 LocalGovt_i + \beta_5 PubInterest_i + \beta_6 Welfare_i + \beta_7 Ecclesia_i + \beta_8 Demographics_i + \epsilon_i, \]

where \(Y_i\) stands for the ordered response on how citizens evaluate government on an 1-5 scale - in the Russian questionnaire they are asked they evaluate government of all levels, and in the Israeli questionnaire how they evaluate the central government only. Nevertheless, the use of the Russian word *vlast* showed pretty clearly that the federal government and its performance were the main issues at stake. *Governance*_i denotes the variable corresponding to the multiple-response question on governance, where civil rights=1, market regulation=2, state reinforcement=4 and social aid=5. *PIdentity*_i indicates the interaction variable between the dominant religious affiliation in a given city (Orthodox in Russian cities, Jewish in Netanya, Muslim and Christian in Nazareth) and its degree of significance for any given respondent i, while *Politics*_i, the respective interaction variable between political identity and its degree of significance. *LocalGovt*_i indicates the degree of citizens’ satisfaction from the services delivered by the local government, *PubInterest*_i denotes the preference for more public or private services in the local government, and *Welfare*_i the preference for centralized or decentralized distribution of social welfare. *Ecclesia*_i denotes collective ideas about the provision of public goods: the Russian Orthodox Church for the Russians, the Chief Rabbinate of Jerusalem for Israeli Jews, the Jerusalem Islamic Waqf and the Greek-Orthodox Church of Jerusalem for Israeli Arabs, Muslims and Christians respectively. *Demographics*_i includes sex, age, income and education, and \( \epsilon_i \) denotes the error term.

The second empirical strategy I plan to follow is the instrumental variables approach. Here, I use my two definitions of religious identity – personal identification and collective ideas regarding the provision of public goods – as instruments to normative beliefs on governance. The model has the following form:

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Governance_i = \gamma_1 R \text{Identity}_i + \gamma_2 \text{PubInterest}_i + \gamma_3 \text{Welfare}_i + \gamma_4 \text{LocalGovt}_i + \gamma_5 \text{Demographics}_i + u_i \\
Y_i = \beta_0 + \beta_1 \text{Governance}_i + \beta_2 \text{PubInterest}_i + \beta_3 \text{Welfare}_i + \beta_4 \text{LocalGovt}_i + \beta_5 \text{Demographics}_i + \epsilon_i \\
\text{Cov(\text{Governance}_i, R \text{Identity}_i)} \neq 0 \\
\text{Cov(R \text{Identity}_i, \epsilon_i)} = 0 \\
R \text{Identity}_i \in \{\text{Ecclesia}, P\text{Identity}\}, \text{which is the set of my two instruments. Collectivist normative beliefs may be instrumented by religious identity as either collective ideas for the provision of public goods or personal identification. Because my original dependent variable is ordinal, I transform it into a dummy variable in order to run a probit model with instrumental variables such that responses in the series of discrete choices [1=Very Negatively, 2=Negatively, 3=Neutrally] are equal to zero and responses in the series of discrete choices [4=Positively, 5=Very Positively] are equal to one. That way, I control for the endogeneity of collectivist and individualist normative beliefs on purpose of government and check for the robustness of my ordered probit estimation model.} \\

The validity of the exclusion restriction has been a standard issue in linear IV models; it has been argued that the introduction of prior uncertainty over this exclusion restriction can improve inference. However, the exclusion restriction \text{Cov(R \text{Identity}_i, \epsilon_i)} = 0 holds not only because the religious identity of individuals is decided randomly by their location of upbringing and family values. It is also supported by my empirical findings. In table 3.11a (Russian Orthodoxy) the standard error for \text{Governance}_i when it is instrumented by R \text{Identity}_i in IV Probit 1 is smaller than in Ordered Probit 1, which implies that inclusion of the instrument drives identification (the standard error is 0.002 in IV Probit 1 and 0.017 in Ordered Probit 1). Moreover, the \text{Governance}_i coefficient in column 3 (IV Probit 1) is statistically significant at the 1 percent level whereas in column 1 (Ordered Probit 1) it is at 10 percent. In table 3.11b (Judaism) the change in the standard error between columns 1 and 3 is still significant (from 0.028 to 0.022). Furthermore, the coefficient also changes from negative to positive and becomes statistically significant at the 1 percent level. In table 3.11c (Sunni Islam) the validity of the exclusion restriction is even more confirmed as the standard error is reduced from 0.046 in Ordered Probit 1 to 0.023 in IV Probit 1 and 0.044 in IV Probit 2. In addition to that, the \text{Governance}_i coefficient is statistically significant in both columns 2 and 3 at the 1 percent level, whereas this was not the case in column 1. In table 3.11d for Arab Christianity (Greek Orthodoxy and Eastern Catholicism), I observe similar results to table 11c. The magnitude of \text{Governance}_i increases substantially from 0.082 in Ordered Probit 1 to 0.513 in IV Probit 1. Its standard error is reduced from 0.080 in Ordered Probit 1 to 0.021 in IV Probit 1, where the \text{Governance}_i coefficient is statistically significant at the 1 percent level.

3.7 Results

3.7.1 Russian Orthodoxy

In table 3.11a (see in the Appendix) I present the output of four different regressions, two ordered probit models where I use interchangeably \( \text{Politics}_i \) and Patriot (the right-wing subset of \( \text{Politics}_i \)) as parameters, and two probit models with \( \text{PIdentity}_i \) and \( \text{Ecclesia}_i \) as instruments for \( \text{Governance}_i \). In the first ordered probit model collectivist normative beliefs of citizens appear to be statistically significant at the 10 percent level, whereas in both probit models with instrumental variables they are statistically significant at the 1 percent level. Nevertheless, there is a low value of pseudo R-square in the first ordered probit model and a statistically insignificant chi-square of the second probit model with Orthodox identity as an instrument. Only in the first probit model with the evaluation of \( \text{Ecclesia}_i \) as an instrument, chi-square rejects the null hypothesis that \( \text{Governance}_i \) is exogenous. Moreover, collectivist normative beliefs have a positive statistical significance at the 1 percent level (IV Probit 1), where the robustness of \( \text{Ecclesia}_i \) as an instrument is shown by the Wald test. The more positively a citizen evaluates the social activity of the Russian Orthodox Church, the more likely he is to have collectivist normative beliefs about governance and thus evaluate positively his central government. Thus, \( H1 \) and \( H3 \) are confirmed.

The opposite signs in the sex coefficient in ordered probit 1 and IV probit 1 do not allow for a safe conclusion on the question whether men or women are more inclined to support the federal center. However, from both ordered probit models it becomes obvious that younger people are more likely to support the government than older people; in both models age has a negative statistical significance at the 1 percent level. This demographic parameter may partially explain the power of Putin’s government; the development of a flexible labor market with higher wages in comparison to the 1990s has led to higher levels of confidence toward the current government among the youth. At the same time, income seems to matter positively for central government support in Russian Orthodoxy; wealthy rather than poor people are more likely to evaluate positively the state. Thus, \( C4 \) is rejected. Although the income coefficients is very small in all three models of table 3.11a where it is statistically significant, only the first IV probit model passes the robustness check. Centralized social welfare does not matter for evaluation of federal center performance, so \( C1 \) is rejected. What becomes obvious is that administrative modernization at the local level increases the positive views for the federal center. As local government evaluation is statistically significant at 1 percent levels in the first ordered probit model, \( H2 \) and \( H4 \) can be confirmed as well. Strong preferences for the public character of local government lead to more positive attitudes vis-à-vis the federal center (first ordered probit model).
Orthodox identity has a negative effect on attitude toward the central government in ordered probit 1 and 2. Religious identity as personal identification with Russian Orthodoxy creates disincentives for a positive evaluation of the Russian government and it is statistically significant at the 10 and 1 percent levels. Nevertheless, the robustness of the first two ordered probit models is not sufficient enough so that C3 is confirmed. At the same time, politicization does not seem to be able to substitute religious identity. H5 is rejected, as the positive statistical significance of politicization is not robust enough to be taken into account.

3.7.2 Judaism

In table 3.11b (see the Appendix) I observe some similarities between Russian Orthodoxy and Judaism. Like in table 11a, also here collectivist normative beliefs, when instrumented by collective ideas regarding the provision of public goods, have a positive statistical significance at the 1 percent level, while chi-square passes the Wald test at the 5 percent level. The dominant religious institution in Judaism that fulfills those collective ideas about the provision of public goods is the Chief Rabbinate of Jerusalem (CRJ). Furthermore, and contrary to the other religions discussed in this paper, religious identity as personal identification with Judaism is a robust instrument for collectivist normative beliefs about governance and thus has a negative effect on evaluations of central government. The Governance coefficient in IV Probit 2 is negatively statistically significant at the 10 percent level. The chi-square passes the exogeneity test, since Identity, is a robust instrument at the 5 percent level.

In both ordered probit models, where I also use interchangeably Politics, and its right-wing subset as parameters, CRJ has a positive statistical significance at the 1 percent level, while pseudo R-square in both regression equations is 10.8 and 11.2 respectively. H1, H2 and H3 are confirmed, whereas C1 and C3 are rejected. There is no competition between central and local government in Israel, where preferences for local and central governments are treated as complementary. The higher the coefficient of LocalGovt, the more likely Jewish citizens of Israel are to evaluate positively the central government. In both ordered probit models local government evaluation has a positive statistical significance at the 1 percent level. From table 3.11b it is inferred that H4 and H5 and C4 are rejected. In the Jewish sector of Israel and more specifically in the sample that I collected from the city of Netanya collectivist religious identity matters positively and individualist religious identity negatively for attitudes toward the central administration. This confirms my argument about the location of Judaism in the midpoint of the individualism-collectivism axis.
3.7.3 Sunni Islam

In table 3.11c I provide one ordered probit model and two probit models with PIdentity, and Ecclesia, as instruments for Governance. In both IV Probit 1 and 2, Governance, has a positive statistical significance at the 1 percent level. Positive evaluation of the JIW social welfare activity is a consistent estimator of collectivist normative beliefs about governance and thus has a positive effect on citizen perceptions of central government. The Wald test in IV Probit 1 confirms it. Therefore, H1 and H3 hold, whereas C3 is rejected. In IV Probit 2, however, the exogeneity hypothesis is not rejected. Thus, individualist religious identity in Sunni Islam does not matter for centralization despite the positive statistical significance of collectivist normative beliefs. An interesting observation is that in Nazareth positive evaluation of the local government is more likely to generate positive attitudes toward the central administrative state of Israel, where Arabs have no particular say (ordered probit model in table 3.11c). Arab Muslims in Nazareth may treat good local governance as a positive signal by the Israeli Jewish central government that it does not intend to undermine their autonomy but on the contrary it advances self-government in the largest city of the Arab sector. H2 is rejected. Preference for a more extensive local bureaucracy also here predicts more positive attitudes toward the central government, which is in line with what I found in Russia; PubInterest, is negatively statistically significant at the 5 percent level. C3, H4, C4, and H5 are rejected. Under conditions of informal autonomy, the Jewish sector treats local public goods as a combination of competitive and complementary to central public goods, whereas the Arab sector as complementary only (table 1). The initial equilibrium solution evoked in the theoretical part of this essay holds.

3.7.4 Arab Christians (Greek Orthodoxy and Eastern Catholicism)

The results from Christian respondents of my Nazareth sample do not differ radically from the aforementioned results that referred to Muslim respondents. Collectivist normative beliefs have a positive statistical significance on evaluation of central government performance at the 1 percent level, when they are instrumented by the social welfare activity of the Orthodox Patriarchate of Jerusalem in IV probit 1. The Wald test confirms it here as well at the 5 percent level (table 3.11d). Moreover, in IV probit 1 younger Arab Christians are more likely to have a positive view of the central government in Israel, because they are less biased by the conflict, which they may see as a Jewish-Muslim rivalry, since the prospective state of Palestine will be predominantly Muslim. Nevertheless, the high statistical significance of collective normative beliefs is not confirmed in the ordered probit model. The Greek-Orthodox Patriarchate of Jerusalem is the most ancient Christian institution in Israel with a major influence both on Israeli politics and the welfare of Arab Christians. The positive evaluation of its social welfare activity by Nazareth respondents is a powerful predictor for centralization, because it
instruments consistently their normative beliefs about governance. Therefore, H1, H2, and H3 are confirmed, whereas C1, C3, H4, C4, and H5 are rejected.

3.8 Conclusions

The distinction of local public goods between contractual and hierarchical suggests that religious identity matters for intergovernmental relations and individual preferences for public goods. Russia and Israel are two states with very different religious traditions and a similar administrative structure. Local public goods in Russia are defined as hierarchical, since their provision is monitored by regional and federal authorities. Local governments in Israel are in a state of informal autonomy from the center. Local public goods in the Israeli Jewish sector are defined as competitive, given the efforts of local governments to claim higher levels of spending autonomy. Local public goods in the Israeli Arab (Muslim and Christian) sector are defined as complementary, given the efforts of local governments to gain more extensive administrative boundaries.

The comparison across the four subsamples of this paper (Russian Orthodox in Russia, Jews in Netanya, Muslims and Christians in Nazareth) provides interesting suggestions for the further study of religion and political economy of bureaucracy. First, normative beliefs of citizens about governance, when instrumented by collectivist religious identity, are all statistically significant at the 1 percent level. Nevertheless, the magnitude of normative beliefs in Russian Orthodoxy (0.540) is much higher than in Judaism (0.504), Sunni Islam (0.503) or Arab Christianity (Greek Orthodoxy and Eastern Catholicism) (0.505) in Israel (IV Probit 1 model). This may imply that Russian Orthodox, Greek Orthodox, and Eastern Catholics are more committed supporters of central government than Sunni Muslims or Jews. This also suggests the validity of collectivist religious identity as an instrument that explains governance preferences in favor of centralization. Wealthier people in my Russian subsample are more likely to express positive views for the federal center, whereas income does not predict anything across my Jewish, Muslim and Christian subsamples in Israel.

Evaluation of local governments also varies across religious groups and their attitudes toward central government. Israeli Jews are the most inclined to be positive toward their central government, when they have a positive opinion about their local government, while similar observations hold for Russians and Israeli Arabs who are Sunni Muslims (tables 3.11a-c). Attitudes toward the local government in Nazareth do not matter for the attitudes of Arab Christians toward the central government in Jerusalem. The active involvement of Israeli Jews in local and central politics of Israel may explain this attitude. However, Sunni Muslims who are much more polarized around the national idea of Palestine treat the local government as an extension rather than as a competitive institution with the administrative center in Jerusalem. Similarly, Russians do not treat their local and central governments as politically separable. Furthermore, adherence to the public rather than privatized character of local government predicts positive evaluation of
central government performance among Russian Orthodox and Sunni Muslims of my sample. In Israel’s Arab sector younger people are more likely to evaluate positively the central government in Jerusalem (tables 3.11c-d).

The collection of questionnaires in the multifunctional centers for the provision of state and municipal services in the cities of Lipetsk, Krasnodar and Sochi and in the offices of local governments in Netanya and Nazareth provides some very useful insights on the relationship between religious identity and centralization in societies with Russian Orthodox, Jewish, Muslim and Arab Christian (Greek-Orthodox and Eastern Catholic) populations. In collectivist religions religious identity as collective ideas regarding the provision of public goods is a robust instrument for collectivist normative beliefs of citizens about governance (tables 3.11a-d). A positive evaluation of the social welfare mission of the Russian Orthodox Church in Russia, the Chief Rabbinate of Jerusalem, the Jerusalem Islamic Waqf and the Greek-Orthodox Patriarchate of Jerusalem in Israel predicts positive attitudes toward centralized forms of governance. In individualist religions, in contrast, religious identity as personal identification with a distinct religious tradition is a robust instrument for individualist normative beliefs of citizens about governance. A strong personal identification with Judaism predicts negative attitudes toward centralized forms of government.
Chapter 4

A Political-Economic Theory of Russian Orthodoxy

4.1 Free-riding, Religion and Public Goods

In this paper, I argue that the principles of Orthodox monastic organization influence the continuous contributions of subnational bureaucrats in Siberia toward the common good. In order to show that, I model the principles of Byzantine and medieval Russian monasticism into strategic games and then transform them into treatments in a public goods experiment. Moreover, I establish the Soviet system of bureaucratic incentives as the intellectual bridge between post-Soviet Russian bureaucracies and medieval Russian Orthodox monasteries.

Modern social science has defined religion in the form of institutional entities that complement or substitute state functions in the provision of social welfare. It has also treated religiosity as verbal adherence to the existence of God or membership to a religious community. Huber and Stanig argue that state provision of social services through local churches puts the religious and secular poor in competition against each other in democracies, because it favors the former at the expense of the latter.276 Scheve and Stasavage propose that social insurance and religiosity are substitute mechanisms with respect to life’s adverse events and therefore shape people’s demands for welfare state provisions in opposite directions; more religious people are inclined to be less dependent on social insurance.277 Based on World Values Survey data from 1995-97, Torgler argues that different proxies of religiosity induce higher tax morale and that this finding justifies the use of non-economic factors in the study of economic behavior.278 Gill and Lundsgaarde treat the welfare state as a substitute to social services provided by the local churches.279 They suggest that a strong welfare state is conducive to higher levels of secularization and thus modernization.280

Furthermore, the historical variables of control, respect and obedience, which are invoked by Tabellini in his effort to explain regional variation in economic performance

280 Ibid.
across Europe, offer a very limited set of analytical conclusions.\textsuperscript{281} Tabellini stresses the significance of culture for economic behavior and mentions that governments or international organizations should take that into account. Nevertheless, this is nothing more than a black box statement, as he himself acknowledges.\textsuperscript{282} At the same time, the cultural division of labor constitutes a necessary, but not sufficient condition for class struggle; as long as a nondemocratic government is able to maintain the welfare of stratified workers at an acceptable minimum, the probability of revolution or loss of legitimacy of the incumbent government is definitely low.\textsuperscript{283}

In post-Soviet Russia there have been two critical and contradictory dimensions in the study of the bureaucracy. On the one hand, bureaucrats have been treated as one of the main factors for the country’s economic stagnation and institutional backwardness; extensive corruption, lack of technical skills, hoarding of state resources both under socialism and post-socialism have been only a few of the negative aspects of the Soviet and Russian civil service. On the other hand, regional bureaucracies are essential for tracing the pathways of policy implementation. Despite their financial constraints and deficiencies in vocational training, they perform a series of multidimensional functions that link the federal government with businesses, domestic and multinational, aid organizations and the lower half of the population’s income distribution. This is why regional bureaucracies form the ideal venue for the study of economic collectivism in the Russian Federation. Regional bureaucrats are elements of the hierarchical monitoring structure, originating in the Kremlin and ending in the municipalities and city districts. A public goods experiment that measures their degree of adherence to the principles of Soviet-Orthodox administrative organization can provide evidence of whether Orthodox values have been an inherent component of Russian state culture and challenge the conventional wisdom of Soviet “atheism”.

This paper challenges two different bodies of literature. First, it makes religion relevant for understanding free-riding in societal and bureaucratic environments. Rather than treating \textit{ex ante} methodological individualism as the exclusive explanatory source for economic behavior in human collectives, it provides alternative equilibrium solutions that justify the influence of cultural and - for that matter - religious norms on resource distribution. It proposes that free-riding can have different levels of intensity and be motivated by incentives that not only are not profit-maximizing, but also religiously defined. Following the line of Stark, Iannaccone, and Finke, I do not treat religion and

\textsuperscript{282} Ibid.
political economy as antithetical; on the contrary, I am convinced that religion can explain political and social phenomena away from the conventional labels of fundamentalism and irrationality. Different religions generate different types of distributive rationality. Second, I expand the existing literature on religion and political economy by offering a structuralist theory that refutes the basic premises of secularism and its proposed dichotomies between sacred and profane institutions.

This is why the choice of iterated public goods experiments is useful here. The main reason for the importance of public goods experiments has been their unique ability to refute one of the key premises of collective action: the free-rider hypothesis. I am taking this further by arguing that 1. Solidarity, hierarchy and universal discipline, when implemented as experimental treatments, can reduce free-riding more than the standard public goods game, 2. The degree of free-riding in public goods experiments is endogenous to enforceable religious norms that affect the distributive behavior of bureaucrats-participants.

Public goods experiments usually take place in the form of classroom games; people sit in the same room, but do not have direct eye contact with each other. They also record their contributions per round on special earnings or payoff sheets. As Marwell and Ames indicate, while the weak free-rider hypothesis holds, the overall private contributions by experiment participants undermine the formal validity of that theory. People may still contribute toward a public good, even if they consider the possibility that another group member will contribute less exactly hoping to free-ride on the rest of the society. Hence, there is no correspondence between reality and the formal Nash equilibrium, where zero is the optimal contribution for everybody. Ironically, only economists, when participating in the Marwell and Ames experiments, seem to validate by approximation the free-rider hypothesis.

Fehr and Gächter propose that cooperators prefer to impose punishments on free-riders, even when they are costly for them; moreover, they suggest that the presence of a punishment condition induces full cooperation among subjects that otherwise defect when there is a no-punishment condition. Their theory of costly punishment finds particular

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287 Ibid.

288 Ibid.

application under Stranger-treatment – when random group composition in each period occurs – rather than under Partner-treatment – when group composition remains the same across periods.290 The confirmation of the weak free-rider hypothesis can also be explained by conditional cooperation; with the use of a contribution table, 50% of the subjects stated their intention to contribute more toward the public good, if their co-players contribute more.291 This observation – backed up by additional evidence from public goods games - adds a third category to cooperators and free-riders; reciprocators.292 This is why a theory of heterogeneous agents and endogenous group formation can be particularly useful when there is no hierarchical relationship between experimental subjects.293

As Palfrey and Prisbrey point out, experienced players are more stable and less altruistic in their contributions across periods, the more experience they accumulate.294 They also show that not only the threshold level of the public good but also the marginal value of the private good influence each player’s contribution decision per round and per experimental session.295 In his seminal article on public goods experiments, Andreoni proposes that strategic behavior or learning cannot account alone for decay in public goods experiments.296 Partners contribute more to the public good than Strangers, and this may be due to the fact that Partners adjust their priors faster than Strangers to the collected sum in round n-1.297 This learning process becomes more effective, when there is a concrete threshold to be achieved. The reason is that there is a binary dilemma imposed on experiment participants; to over- or under-contribute toward collective welfare. This is in line with Andreoni who argues about the significance of social norms with respect to levels of cooperation.298 Social norms may sustain a high level of cooperation in repetitive public goods games with a finite horizon, and thus induce learning ex ante rather than ex post.

My paper challenges the aforementioned premises as well. In my experiments, I make use of Partner-treatment only and allow for hierarchical differentiation across group members. Eastern Orthodoxy is the singular common grounds that can explain the existence of rigid yet collectivist hierarchies in the Russian bureaucracy. If the French

290 Ibid.
293 Ibid.
295 Ibid.
297 Ibid.
298 Ibid.
Revolution can be defined as the Protestant Revolution of modernity, then the Russian Revolution is certainly its Orthodox equivalent. Despite their formal abstention from any form of religious organization or institutions, their anti-clerical principles and unequivocal support of individual rights in the French case and of abolition of private property and egalitarianism in the Russian case place them in the core normative space of Protestantism and Eastern Orthodoxy respectively.

The paper is structured as follows. In section 2, I discuss the relationship between Eastern Orthodoxy and governance in Russian history. In section 3, I present and solve a public goods model and its variations that correspond to solidarity, obedience and universal discipline. The results of the model are tested empirically in section 4, which presents the experimental design. Results are reported and discussed in section 5 and conclusions are reached in section 6.

4.2 Religion and Bureaucracy in Russia

Hierarchy, solidarity and universal discipline are central in Orthodox theology and organization. If the core of the Orthodox tradition - according to St. John the Chrysostom - is the idea that the state should imitate the norms and organization of the church in order to achieve its optimal form, then it is seems appropriate to test it with a public goods experiment. In his work on Russian intellectual history and the relationship between the individual and the collective, Oleg Kharkhordin draws the fascinating analogy between Soviet collectives and Orthodox congregations.²⁹⁹ His contribution lies primarily in political theory and the linkage between Byzantine patristics and Russian ecclesiastical thought as well as the influence of the former on religious practices and state structures in Russia from Kievan Rus’ to the Soviet Union.³⁰⁰ More specifically, he proposes that the Eastern Orthodox collective (on the basis of the Russian Orthodox Monastery and Soviet civil society) is bounded by the following principles: 1. Hierarchy, 2. Collective surveillance, and 3. Mutual assistance at the community level.³⁰¹ Instead of focusing on the analogy between Soviet collectives and Orthodox congregations, I draw a much longer historical line between late Byzantium and post-Soviet Russia. Moreover, I trace the roots of Eastern Orthodox collectivism in Russia in the influence of Byzantium's Hesychast movement on Russia’s ecclesiastical thought and more importantly administrative structures.

Joseph Volotskii, the hegumen (abbot) of the Volokolamsk Monastery, has been one of the most influential figures in the definition of monastic organization in Russian

²⁹⁹ Kharkhordin Oleg V. Main Concepts of Russian Politics, University Press of America, 51-56.
³⁰⁰ The thrust of his argument can also be found in Kharkhordin Oleg V. The Collective and the Individual in Russia: A Study of Practices, University of California Press, 1999.
³⁰¹ Kharkhordin Oleg V. Main Concepts of Russian Politics, University Press of America, 51-56.
Orthodoxy; his Brief and Extended Rules suggest a series of principles on what constitutes a monastic community, its core, boundaries and limitations. In his approach of coenobitic life, he argues in the Extended Rule that mercy and charity are critical for the self-preservation of the monastery and its ability to fulfill its social welfare obligations, i.e. meeting the needs of the poor. Moreover, he suggests that the monastery is a worldly institution and thus it is also defined by material needs and principles that may define other forms of communal organization; contrary to Goldfrank, who understands the monastery as a reflection of Muscovy’s political and economic structures, I argue that the monastery itself perpetuates political and economic structures that have been far more ancient than Muscovy.

The key distinction between Joseph Volotskii and Nil Sorskii, the Athonite monk who was Joseph’s contemporary and equally influential in the Russian Orthodox Church, is the following: while Nil prioritized hermitage and Hesychast asceticism, Joseph treated monasticism as a worldly elite institution. As Goldfrank indicates in his recent work on Volotskii and Sorskii, this distinction does not make Nil a “non-Joseph”, or Joseph non-Orthodox; Nil and Joseph perceived Orthodoxy from different angles without necessarily being in intellectual clash with each other. Penitence, material detachment and emotional indifference are some of the prerequisites of the Hesychast ideal of stillness, which lies in the core of Sorskii’s Byzantine Orthodox thought in early modern Russia.

This very idea of abstinence from property is central in the theological through of St. John the Chrysostom where the koinonia of goods is essential for the unity and utility the church. Nevertheless, koinonia is not only material; it has also a direct personal dimension, because property is only complementary to personal communication and human salvation through the community of persons. Hence, mysticism is not in opposition to asceticism; the Hesychast tradition suggests that the former should rather be seen as an extension of the latter. The end is Kaini Ktisi, the creation of a new world on the basis of Eastern Orthodox principles; the Church as an institution is a necessary prerequisite in that respect. Thus, the Church in the Orthodox tradition becomes the paradigmatic structure for the state. The monastic community lies in the core of this

303 Ibid.
304 Ibid.
306 Ibid.
administrative system. The mainstream position of the Hesychast tradition in Orthodox Christianity, within the boundaries of Byzantine Empire and beyond, and the willingness of the Emperor John VI Kantakouzenos to support the Hesychast cause confirm its key role in the development of the Orthodox commonwealth.310

Marcuse in his explanation of the new rationality emerged in the Soviet Union in the 1920s proposes that transition from capitalism to communism was conditioned by social processes, reinforcement of the state apparatus, elimination of competitive ideologies, achievement of a subsistence minimum, industrialization and agricultural collectivization.311 The formation of vertical and centralized administrative structures that proclaim to eradicate individual interests vis-à-vis collective welfare in many instances was more rhetorical than real. Nevertheless, the Soviet synthesis of common interest is elaborated in Marcuse as negation of individual freedom and inequality.312 This is why I treat orthodoxy and communism as a continuum in terms of bureaucratic organization. They constitute the two leading cultural paradigms in Russian history since the 10th century, when the principality of Kievan Rus’ adopted Orthodox Christianity from Constantinople (988); they have both defined Russian identity in stark contrast with the West, whose main cultural elements have been capitalism and any of the two leading versions of Western Christianity, Catholicism or Protestantism.313 The imperial heritage of Byzantium constitutes a key component of Russia’s national self-consciousness;314 since the Byzantine emperor was seen as the representative of God and the Empire itself the depiction of the Divine Kingdom on Earth, Russia’s lack of democratic culture may be linked to its Eastern Orthodox tradition.315 Rational individualism is the cornerstone of Western Christianity and capitalism, as well as of capitalism’s political outgrowth, democracy. Rather than making an argument about the incompatibility of orthodoxy with democratic values and economic development, I define orthodox communitarianism as a form of political and economic organization, alternative to market economy and democracy, with distinctive microfoundations and bureaucratic characteristics.

This abstinence of the Russian administrative state from the Weberian ideal type is linked with a strong commitment to communitarianism and the creation of relational

312 Ibid: 100-103.
315 Ibid.
rather than professional policy networks.\textsuperscript{316} The size of the Russian civil service is considered to be inefficient and its education substandard by Western criteria; nevertheless, it fulfills multidimensional social functions.\textsuperscript{317} Although it is not accurate to define Russia as collectivist and the West as individualistic in an exclusive way, it is certainly the case that the Russian administrative state has determined the concept of economic and political community in a radically different way than its Western counterparts.\textsuperscript{318} The government is not just the collective representation of citizens’ individual interests. It serves broader social functions that transcend the boundaries between what we perceive as public and private; education, healthcare, church charity, energy regulation and transportation are critical policy areas, where the state does not function as a profit-maximizing entrepreneur or a mere coordinator of public activities. On the contrary, it has the absolute authority in defining public interest, since it controls all governance structures in the Russian society, both vertical and horizontal.

The ability of the Russian executive to enforce collaborative rather than competitive structures in the provision of public goods is due to a mix of repressive technology and transactional efficiency. Thus, the Russian administration becomes the embodiment of family and community values at the macro-level. Selective resonance to contract enforcement and judicial institutions does not mean that resource allocation occurs without the existence of a functional institutional mechanism.\textsuperscript{319} The Russian administrative state is a complex organization of overlapping hierarchies, subject to scrutiny and control by immediate supervisors; this is why any trace of administrative justice in Russia is certainly not a victory of citizens against local or federal arbitrariness.\textsuperscript{320} The political economy of democratic reform in the 1990s has been severely criticized for its intent to destroy the communitarian dogma in Russia’s political and economic system and substitute it with a privatized version of the state, which would have no distributive obligations toward the citizens.\textsuperscript{321} This is why the democratic experiment failed in Russia: because instead of becoming the principled polity of the


\textsuperscript{317} Ibid.


\textsuperscript{319} Hendley Kathryn, Randi Ryterman and Peter Murrell. "Do Repeat Players Behave Differently in Russia? Contractual and Litigation Behavior of Russian Enterprises", \textit{Law and Society Review} Vol. 33, No. 4 (1999); see also Clarks Simon and Vadim Borisov, “New forms of labor contract and labor flexibility in Russia”, \textit{Economics of Transition} 7 (3): 593-614.


middle class, democracy was treated as equivalent to an arbitrary form of government, run by privatized state elites. The icon of the state, perpetuating the Byzantine political tradition of the Emperor, constitutes a solid ideological stronghold, which is defined by the divide-and-rule principle vis-à-vis the citizens, and constrains any major form of civic organization. Civicness and trust as alternative foundations of governance are seen as threats to community cohesion, because they limit the role of the state as supplier of public goods and social services. This multiplicity of organizational forms facilitates high levels of administrative corruption, mainly targeted at small and medium enterprises (SMEs), which play by default a minor role in generating public goods for the government and hence contributing to regime legitimacy.\textsuperscript{322}

Unity rather than diversity, and the perception of a super state that embodies collective interests and has messianic traits are in the core of both Marxian and Byzantine political traditions.\textsuperscript{323} Unlike Protestant bureaucracies, where \textit{ex-ante} enforcement mechanisms form the basis of state-society relations and social trust, in post-communist Russia the minimization of exogenous risk, and thus the maintenance of a gradualist value-infused collectivism forms the basis of administrative decision-making and public goods distribution.\textsuperscript{324} Treating communism as Russia’s civil religion and orthodoxy as the primary form of theological expression in Russian history may provide the cultural foundations of bureaucracy and regime formation in post-Soviet Russia.\textsuperscript{325}

4.3 The Model

How can these arguments be further developed in terms of economic models? I suggest the formalization of the three basic aforementioned principles of Orthodox monasticism and the Soviet collective: obedience, solidarity and universal discipline. Modeling the Russian bureaucracy as a hierarchical organization that operates on the basis of these norms provides a baseline for the experimental results that I am discussing later on.


4.3.1 Standard Form with Rank Differentiation

I assume an administrative agency A with three different ranks for its civil servants: \( r_1, r_2 \) and \( r_3 \). Moreover, \( n_1 = 1 \), and \( n_1 < n_2 < n_3 \), which means that the principal of the administrative agency is singular, and the lower the administrative rank the more the agents. It is also assumed that each of these three groups has a different level of commitment to collective welfare. The public good threshold is set by the principal in the beginning of the game. I assume linear utilities for ranks 1, 2 and 3, which have the following structure:

\[
U_i = \chi_i - \theta_i + \beta_i Z_i(\theta_i)
\]

where \( \chi_i \) is the initial endowment of any bureaucrat \( i \) where \( i=1, 2, \) or \( 3 \), \( \theta_i \) is his monetary contribution, \( Z_i \) the public good payoff to any bureaucrat \( i \), which is monotonically decreasing in \( \theta_i \), \( \beta_i \) is a parameter between 0 and 1, which denotes the degree of hierarchical accountability for collective welfare, such that \( \beta_1 > \beta_2 > \beta_3 \). The public good threshold is denoted as \( t \), which is continuous and defined in the interval \((\theta_1, \theta_1 + n_2 \theta_2 + n_3 \theta_3] \). I differentiate across ranks, not within.

Each bureaucrat does not know if the other one will provide adequate contribution toward the public good. There are four possible events:

1. Bureaucrat \( i \) over-fulfills and bureaucrats –\( i \) under-fulfill.
2. Bureaucrat \( i \) under-fulfills and bureaucrats –\( i \) over-fulfill.
3. All types of bureaucrats over-fulfill.
4. All types of bureaucrats under-fulfill.\(^{326}\)

If all types of bureaucrats over-fulfill, the public good is certainly delivered. If all types of bureaucrats under-fulfill, the public is certainly not delivered. If bureaucrat \( i \) under-fulfills and bureaucrats –\( i \), then both outcomes are likely. The same holds, when bureaucrat \( i \) under-fulfills and bureaucrats –\( i \) over-fulfill. Thus, any bureaucrat \( i \) can choose to either over- or under-fulfill. The probability of over-fulfillment is denoted as \( p(\theta_i \geq \hat{\theta}_i) = p(\hat{\theta}_i) \) and the probability of under-fulfillment as \( 1 - p(\theta_i \geq \hat{\theta}_i) = p(\theta_i) \), where \( \hat{\theta}_i \) is the threshold for over-fulfillment. Moreover, because the public good is delivered if and only if \( t \) is reached, then there is a discontinuity in the payoffs around threshold \( t \). I assume that collective welfare from non-delivery has the form \( Z_i^{\sigma} = Z_i^{\sigma} - C_i \), where \( \sigma \) is the sum of contributions provided by all bureaucrats and \( C_i \) is the cost of free-riding and a function monotonically decreasing in \( \theta_i \). Therefore, I rewrite the utility payoffs as follows:

By the implicit function theorem I define \( \theta_i = q_i(\theta_{-i}) \). Therefore, the second-order conditions for the principal have the following form:

\[
\frac{\partial^2 q_i}{\partial \theta_i \partial \theta_{-i}} = \left( \frac{\partial^2 Z_i}{\partial \theta_i \partial \theta_{-i}} \right)^{-1}, \text{if } \theta_i \geq \hat{\theta}_i \text{ and } \theta_{-i} \geq \hat{\theta}_{-i}
\]

\[
\frac{\partial^2 q_i}{\partial \theta_i \partial \theta_{-i}} = \left( \frac{\partial^2 Z_i}{\partial \theta_i \partial \theta_{-i}} - \lambda_i(t > \sigma) \frac{\partial^2 C_i}{\partial \theta_i \partial \theta_{-i}} \right) \left( \frac{\partial^2 Z_i}{\partial \theta_i^2} - \lambda_i(t > \sigma) \frac{\partial^2 C_i}{\partial \theta_i^2} \right)^{-1}, \text{if } \theta_i < \hat{\theta}_i \text{ and } \theta_{-i} < \hat{\theta}_{-i}
\]

\[
\frac{\partial^2 q_i}{\partial \theta_i \partial \theta_{-i}} = \left( \frac{\partial^2 Z_i}{\partial \theta_i \partial \theta_{-i}} - \lambda_i(t > \sigma) \frac{\partial^2 C_i}{\partial \theta_i \partial \theta_{-i}} \right) \left( \frac{\partial^2 Z_i}{\partial \theta_i^2} - \lambda_i(t > \sigma) \frac{\partial^2 C_i}{\partial \theta_i^2} \right)^{-1}, \text{if } \theta_i < \hat{\theta}_i \text{ and } \theta_{-i} < \hat{\theta}_{-i}
\]
Similarly, for bureaucrats of rank 2 and 3,

\[
\frac{\partial q_2}{\partial \theta_2} = -\frac{\partial^2 Z_2}{\partial \theta_2 \partial \theta_2} \left( \frac{\partial^2 Z_2}{\partial \theta_2^2} \right)^{-1}, \text{if } \theta_2 \geq \hat{\theta}_2 \text{ and } \theta_2 \geq \hat{\theta}_2.
\]

\[
\frac{\partial q_2}{\partial \theta_2} = -\left( \frac{\partial^2 Z_2}{\partial \theta_2 \partial \theta_2} - p_2(t > \sigma) \frac{\partial^2 C_2}{\partial \theta_2 \partial \theta_2} \right) \left( \frac{\partial^2 Z_2}{\partial \theta_2^2} - p_2(t > \sigma) \frac{\partial^2 C_2}{\partial \theta_2^2} \right)^{-1}, \text{if } \theta_2 \geq \hat{\theta}_2 \text{ and } \theta_2 < \hat{\theta}_2.
\]

\[
\frac{\partial q_2}{\partial \theta_2} = -\left( \frac{\partial^2 Z_2}{\partial \theta_2 \partial \theta_2} - \lambda_2(t > \sigma) \frac{\partial^2 C_2}{\partial \theta_2 \partial \theta_2} \right) \left( \frac{\partial^2 Z_2}{\partial \theta_2^2} - \lambda_2(t > \sigma) \frac{\partial^2 C_2}{\partial \theta_2^2} \right)^{-1}, \text{if } \theta_2 < \hat{\theta}_2 \text{ and } \theta_2 \geq \hat{\theta}_2.
\]

\[
\frac{\partial q_2}{\partial \theta_2} = -\left( \frac{\partial^2 Z_2}{\partial \theta_2 \partial \theta_2} \frac{\partial^2 C_2}{\partial \theta_2 \partial \theta_2} \right)^{-1}, \text{if } \theta_2 < \hat{\theta}_2 \text{ and } \theta_2 < \hat{\theta}_2.
\]

\[
D_{\theta_2} L_2 = \begin{cases} 
\frac{\partial q_2}{\partial \theta_3} = -\frac{\partial^2 Z_3}{\partial \theta_3 \partial \theta_3} \left( \frac{\partial^2 Z_3}{\partial \theta_3^2} \right)^{-1}, & \text{if } \theta_3 \geq \hat{\theta}_3 \text{ and } \theta_3 \geq \hat{\theta}_3.
\end{cases}
\]

\[
\frac{\partial q_3}{\partial \theta_3} = -\frac{\partial^2 Z_3}{\partial \theta_3 \partial \theta_3} \left( \frac{\partial^2 Z_3}{\partial \theta_3^2} \right)^{-1}, \text{if } \theta_3 \geq \hat{\theta}_3 \text{ and } \theta_3 < \hat{\theta}_3.
\]

\[
\frac{\partial q_3}{\partial \theta_3} = -\left( \frac{\partial^2 Z_3}{\partial \theta_3 \partial \theta_3} - \lambda_3(t > \sigma) \frac{\partial^2 C_3}{\partial \theta_3 \partial \theta_3} \right) \left( \frac{\partial^2 Z_3}{\partial \theta_3^2} - \lambda_3(t > \sigma) \frac{\partial^2 C_3}{\partial \theta_3^2} \right)^{-1}, \text{if } \theta_3 < \hat{\theta}_3 \text{ and } \theta_3 \geq \hat{\theta}_3.
\]

\[
\frac{\partial q_3}{\partial \theta_3} = -\left( \frac{\partial^2 Z_3}{\partial \theta_3 \partial \theta_3} \frac{\partial^2 C_3}{\partial \theta_3 \partial \theta_3} \right)^{-1}, \text{if } \theta_3 < \hat{\theta}_3 \text{ and } \theta_3 < \hat{\theta}_3.
\]

Following the standard public goods game, the players’ actions are strategic substitutes such that \( \frac{\partial q_1}{\partial \theta_2} < 0, \frac{\partial q_1}{\partial \theta_3} < 0, \frac{\partial q_2}{\partial \theta_1} < 0, \frac{\partial q_2}{\partial \theta_3} < 0, \frac{\partial q_3}{\partial \theta_1} < 0, \frac{\partial q_3}{\partial \theta_2} < 0 \). The same assumption holds also for the extension I present here. This means that the higher the contributions of bureaucrats of rank 2 and 3, the lesser the contribution of the principal. The same holds symmetrically for bureaucrats of rank 2 and 3. There is no reason for him to contribute more, if he can achieve the same public good payoff by contributing the least to it. The standard public goods game with linear payoffs identifies two types of Nash equilibria. The first one is a Nash equilibrium in pure strategies where everybody bids zero such that \( \theta_1 = \theta_2 = \theta_3 = 0 \). The second one is also a Nash equilibrium in pure strategies where everybody bids the same monetary contribution such that \( \frac{t}{N} \), where N is the total number of players. In my propositions below, I provide the Nash equilibria derived from my extension to the standard form with differentiated ranks.

**Proposition 1:**
If \( \frac{\partial^2 C_1}{\partial \theta_1 \partial \theta_{-1}} \geq \frac{\partial^2 Z_1}{\partial \theta_1 \partial \theta_{-1}} \) and \( p_1(t > \sigma) < \lambda_1(t > \sigma) \), then the principal sets the threshold \( t \) such that \( \lim_{t \to m} t = m \), and his contribution such that \( \lim_{\theta_1, \theta_{-1} \to 0,0} \inf_{\theta_1} \{ \theta_1 : \theta_1 \geq \hat{\theta}_1 \} = \hat{\theta}_1 \). This is a Nash equilibrium in mixed strategies and a weakly dominant strategy as it implies the existence of a continuum of Nash equilibria.

**Corollary 1a:**
If \( \frac{\partial^2 C_2}{\partial \theta_1 \partial \theta_{-1}} \geq \frac{\partial^2 Z_2}{\partial \theta_1 \partial \theta_{-1}} \), \( \frac{\partial^2 C_3}{\partial \theta_1 \partial \theta_{-1}} \geq \frac{\partial^2 Z_3}{\partial \theta_1 \partial \theta_{-1}} \), \( p_2(t > \sigma) > \lambda_2(t > \sigma) \) and \( p_3(t > \sigma) > \lambda_3(t > \sigma) \), then rank-2 and rank-3 bureaucrats set their contributions such that \( \lim_{t \to \hat{\theta}_1} p_2(t > \sigma) = 0 \), \( \lim_{t \to \hat{\theta}_1} p_3(t > \sigma) = 0 \) and \( \lim_{\theta_2, \theta_3 \to 0,0} \inf_{\theta_2} \{ \theta_2 : \theta_2 < \hat{\theta}_2 \} = 0 \) and \( \lim_{\theta_2, \theta_3 \to 0,0} \inf_{\theta_3} \{ \theta_3 : \theta_3 < \hat{\theta}_3 \} = 0 \). This is a Nash equilibrium in mixed strategies and a weakly dominant strategy as it implies the existence of a continuum of Nash equilibria.

**Proof of Proposition 1**

As indicated in the second-order conditions matrices of the principal, if \( \frac{\partial^2 C_1}{\partial \theta_1 \partial \theta_{-1}} \geq \frac{\partial^2 Z_1}{\partial \theta_1 \partial \theta_{-1}} \) and \( p_1(t > \sigma) < \lambda_1(t > \sigma) \), then the principal has an incentive to over-fulfill at the minimum level \( \hat{\theta}_1 \). More specifically, if his individual cost of non-delivery is higher than the individual welfare from delivery and if the probability of non-delivery for the public good is lower when he over-fulfills than when he under-fulfills, then the principal has an incentive to set the threshold equal to the minimum level \( m \), in order to maximize the probability of public good delivery, assuming that the contributions of rank-2 and rank-3 bureaucrats tend to zero.

**Proof of Corollary 1a**

As indicated in the second-order conditions matrices of rank-2 and rank-3 bureaucrats, if \( \frac{\partial^2 C_2}{\partial \theta_1 \partial \theta_{-1}} \geq \frac{\partial^2 Z_2}{\partial \theta_1 \partial \theta_{-1}} \), \( \frac{\partial^2 C_3}{\partial \theta_1 \partial \theta_{-1}} \geq \frac{\partial^2 Z_3}{\partial \theta_1 \partial \theta_{-1}} \), \( p_2(t > \sigma) > \lambda_2(t > \sigma) \) and \( p_3(t > \sigma) > \lambda_3(t > \sigma) \), then rank-2 and rank-3 bureaucrats have an incentive to under-fulfill, assuming that the principal is better-off by over- rather than under-fulfilling, when they free-ride. The principal has an incentive to set \( t = m \), so that his own contribution has a limit in \( \hat{\theta}_1 \), as the contributions of rank-2 and rank-3 bureaucrats approximate zero if and only if \( p_1(t < \sigma) > \lambda_2(t < \sigma) > \lambda_3(t < \sigma) \).

In a public goods game with hierarchical differentiation the principal contributes the infimum of his over-fulfillment space, whereas rank-2 and rank-3 bureaucrats contribute the infimum of their respective under-fulfillment spaces. Both the principal and lower-level bureaucrats have an interest in the delivery of the public good; the
comparative income advantage of the principal makes his own contribution critical for this outcome. Therefore, without his over-fulfillment the public good is not going to be delivered, as the principal anticipates that rank-2 and rank-3 bureaucrats are more likely to free-ride. At the same time, bureaucrats of rank 2 and 3 decide to free-ride, as they expect that the principal is better off by offering a contribution. The equilibrium set has the following form:

$$\lim \inf \{ \theta_1 : \theta_1 \geq \hat{\theta}_1 \}, \lim \inf \{ \theta_2 : \theta_2 < \hat{\theta}_2 \}, \lim \inf \{ \theta_3 : \theta_3 < \hat{\theta}_3 \} \Rightarrow \{ \hat{\theta}_1, 0, 0 \}.$$

Thus, the public good is not delivered in the standard form as $\hat{\theta}_1 < m$.

### 4.3.2 Solidarity

I now assume that the bureaucrats decide about whether to deliver a social good. This is not for the general public, including themselves, but it addresses the needs of poorer and more disadvantaged members of the society. The differences from the standard form model are the following:
1. The solidarity payoff is lower than the individual welfare payoff in the previous case such that \( \frac{\partial Y_i^{i,s_i}}{\partial \theta_i} < \frac{\partial Z_i^{i,s_i}}{\partial \theta_i} \) and \( \gamma_i < \beta_i \), where \( Y_i^{i,s_i} \) is the social welfare (solidarity) payoff derived by the bureaucrat.

2. The solidarity payoff is divided by \( \tau_p \lambda \), where \( \lambda \) is the total population, and \( \tau_p \) is the percentage of poor people in any society. The utility payoffs have the following form:

\[
J_i(\theta_i) = \begin{cases} 
\chi_i - \theta_i + \frac{\gamma_i}{\tau_p \lambda} Y_i^{i,s_i}(\theta_i), & \text{if } \theta_i \geq \hat{\theta}_i \text{ and } \theta_{-i} \geq \hat{\theta}_{-i} \\
p_i (t \leq \sigma)[\chi_i - \theta_i + \frac{\gamma_i}{\tau_p \lambda} Y_i^{i,s_i}(\theta_i)] + p_i (t > \sigma)[\chi_i - \theta_i + \frac{\gamma_i}{\tau_p \lambda} Y_i^{i,s_i}(\theta_i) - \frac{\gamma_i}{\tau_p \lambda} C_i(\theta_i)], & \text{if } \theta_i \geq \hat{\theta}_i \text{ and } \theta_{-i} < \hat{\theta}_{-i} \\
\lambda_i (t \leq \sigma)[\chi_i - \theta_i + \frac{\gamma_i}{\tau_p \lambda} Y_i^{i,s_i}(\theta_i)] + \lambda_i (t > \sigma)[\chi_i - \theta_i + \frac{\gamma_i}{\tau_p \lambda} Y_i^{i,s_i}(\theta_i) - \frac{\gamma_i}{\tau_p \lambda} C_i(\theta_i)], & \text{if } \theta_i < \hat{\theta}_i \text{ and } \theta_{-i} \geq \hat{\theta}_{-i} \\
\chi_i - \theta_i + \frac{\gamma_i}{\tau_p \lambda} Y_i^{i,s_i}(\theta_i) - \frac{\gamma_i}{\tau_p \lambda} C_i(\theta_i), & \text{if } \theta_i < \hat{\theta}_i \text{ and } \theta_{-i} < \hat{\theta}_{-i}
\end{cases}
\]

The players’ actions in this game are also strategic substitutes such that \( \frac{\partial q_1}{\partial \theta_2} < 0, \frac{\partial q_1}{\partial \theta_3} < 0, \frac{\partial q_2}{\partial \theta_1} < 0, \frac{\partial q_2}{\partial \theta_3} < 0, \frac{\partial q_3}{\partial \theta_1} < 0, \frac{\partial q_3}{\partial \theta_2} < 0 \).
Proposition 2:
If \( \frac{\partial^2 C_i}{\partial \theta_i \partial \theta_{i-1}} \geq \frac{\partial^2 Y_i}{\partial \theta_i \partial \theta_{i-1}} \) and \( p_i(t > \sigma) < \lambda_i(t > \sigma) \), then the principal sets the threshold \( t \) such that \( \lim_{\theta_i \to \theta_i - \varepsilon} t = k \), and his contribution such that \( \lim \sup \{ \theta_i : \theta_i < \hat{\theta}_i \} = \hat{\theta}_i - \varepsilon \), where \( \varepsilon \) is the difference between \( \frac{\partial^2 Y_i}{\partial \theta_i \partial \theta_{i-1}} \) and \( \frac{\partial^2 Z_i}{\partial \theta_i \partial \theta_{i-1}} \). This is a Nash equilibrium in mixed strategies and a weakly dominant strategy as it implies the existence of a continuum of Nash equilibria.

Corollary 2a: If \( \tau_p \to +\infty \), then there is no incentive for any player to contribute toward the social good such that \( \theta_1 = \theta_2 = \theta_3 = 0 \). Solidarity is more likely to be observed in societies with less rather than more poverty.

Proof of Proposition 2
The principal is even less incentivized to contribute toward the social good, and thus he under-fulfills. This is why his contribution is now located in the upper bound of his under-fulfillment space. Solidarity does not make bureaucrats of rank 2 and 3 to improve their contribution: they are expected to free-ride here as well, as per proposition 1. Thus, the equilibrium has the following form:
\[
\lim \sup \{ \theta_i : \theta_i < \hat{\theta}_i \}, \lim \inf \{ \theta_2 : \theta_2 < \hat{\theta}_2 \}, \lim \inf \{ \theta_3 : \theta_3 < \hat{\theta}_3 \} \Rightarrow \{ \hat{\theta}_1 - \varepsilon, 0, 0 \}.
\]

Proof of Corollary 2b
It is defined that as \( \tau_p \) increases, \( Y_i \) monotonically decreases. Thus, if \( \tau_p \) approximates infinity, then \( Y_i \) approximates zero and there is no incentive of contribution toward the social good by any bureaucrat such that \( \lim_{\tau_p \to +\infty} Y_i = 0 \).

4.3.3 Obedience

I now assume that bureaucrats of rank 2 and 3 are monitored by their respective immediate supervisors (the principal and bureaucrats of rank 2). It is possible to set up the standard form game as a dynamic game with two periods. The differences from the standard form game are the following:

1. In period 1 the process is the same as in the standard form. After period 1 is completed, the principal and bureaucrats of rank 2 learn the contributions of their respective supervisees.
2. In period 2, immediate supervisors punish their supervisees under two conditions:
   1. The public good was not delivered in period 1, and
   2. Their contribution was below the over-fulfillment minimum \( \hat{\theta}_{i-1} \).
They enforce that minimum by imposing a cost $C(\hat{\theta}_i)$ that has a maximum in $\hat{\theta}_i$ such that $C(\hat{\theta}_i) = 0$ and is decreasing in the interval $[0, \hat{\theta}_i]$. Immediate supervisors have a binary choice: 1. To repeat the standard form game in two periods (ex-ante monitoring), or 2. To learn the outcome and contributions of their immediate supervisees and then impose on them or not the non-compliance cost (ex-post or Bayesian monitoring). Thus, the ex-ante monitoring payoff for all three types of players is the following:\footnote{328 The logic of my model follows the two-period gradualism model in Roland Gérard. Transition and Economics: Politics, Markets and Firms, MIT Press, 2000: pp. 31-42.}

$$W_{12}(\theta_i) = (1-\delta)W_{11}(\theta_i) + \delta \max W_{11}(\theta_i)$$ (10a)

$$W_{22}(\theta_i) = (1-\delta)W_{21}(\theta_i) + \delta \max W_{21}(\theta_i)$$ (10b)

$$W_{32}(\theta_i) = (1-\delta)W_{31}(\theta_i) + \delta \max W_{31}(\theta_i)$$ (10c)

Under Bayesian monitoring, the principal has learned the performance of rank-2 bureaucrats, and rank-2 bureaucrats have learned the performance of rank-3 bureaucrats. The contributions of rank-2 bureaucrats form a signal for the principal that can influence his own contribution in round n+1. The same holds for rank-2 bureaucrats with respect to the contributions of rank-3 bureaucrats. The cost function $C(\hat{\theta}_i)$ depicts that consideration in the most accurate way: the less a supervisee contributes in period 1, the more likely it is that he will be punished with non-delivery also in period 2. The immediate supervisor makes him pay the cost of non-delivery by deciding to contribute less. The continuation payoffs in that case can be written in the following form:

$$W_{12}(S_{n_2}) = (1-\delta)W_{11}(\theta_i|S_{n_2}) + \delta \max W_{11}(\theta_i|S_{n_2})$$ (11a)

$$W_{22}(S_{n_2}) = (1-\delta)W_{21}(\theta_i|S_{n_2}) + \delta \max W_{21}(\theta_i|S_{n_2})$$ (11b)

$$W_{32}(\theta_i) = (1-\delta)W_{31}(\theta_i) + \delta \max W_{31}(\theta_i)$$ (11c)

Bureaucrats of rank 2 know in advance that the principal will check on their performance after period 1 is over, and bureaucrats of rank 3 know in advance that bureaucrats of rank 2 will check on their performance after period 1 is over. Thus, free-riding may not be the most efficient strategy in this game, because information revelation can create free-riding incentives to immediate supervisors and thus prevent delivery of the public good. The introduction of two competing modes of efficiency with distinctive religious characteristics is prevalent here. The ex-ante continuation payoff, as it is outlined in 10a-c, does not consider the respective contributions of rank-2 and rank-3 bureaucrats in period 1. It is a dynamic form of the standard public goods game. Under ex-ante efficiency, there is no opportunity of benevolent performance for rank-2 and rank-3 bureaucrats.

I suggest that dynamic free-riding embodies a Protestant worldview on state-society relations and class stratification. Bureaucrats care about the delivery of the public good to the extent it does not diminish consumption of their private good. This rule that has dominated the political economy of collective action is only partially true and refers
mainly to Protestant societies with a small state and a disciplinary version of bureaucratic rationality. This is what I define as *ex-ante (or synchronic) monitoring*.

On the contrary, the introduction of obedience in the form of strategic adjustment to the perceived expectations of immediate supervisors allows bureaucrats of rank 2 and 3 to show the degree of their distributive commitment in period 1. This monitoring structure has two unique elements: 1. It has a learning effect on the contributions of immediate supervisors in period \( n+1 \), and 2. It creates a hierarchical accountability dilemma for hierarchically inferior bureaucrats in period 1. Bureaucrats of rank-2 both learn the performance of rank-3 bureaucrats and are hierarchically accountable to the principal for their own performance in period \( n \). Hence, obedience corresponds to a non-individualist worldview in public goods provision.

Hierarchically inferior bureaucrats become aware that there is a smaller probability that the public good will be provided in round \( n+1 \), if they free-ride in period \( n \). And immediate supervisors are enforced to think beyond their private endowment and preserve their hierarchical authority. This is the Orthodox worldview in bureaucratic organization and the public economy. Rather than performing cross-rank equalization to the bottom, the Orthodox-minded bureaucrat takes into account his own hierarchical position, which defines the degree of his distributive commitment, while accounting for the contributions of others. The delivery of the public good is more important than private consumption in the collectivist worldview of Eastern Orthodoxy. Under conditions of obedience or hierarchical accountability, everybody is given the opportunity to strategically adjust its strategy so that there is a better opportunity for the provision of the public good. Individual repentance rather than individual punishment lies in the core of Eastern Orthodox theology and is reflected in what I define as *Bayesian monitoring*. If hierarchy preservation lies in the core of an efficient Orthodox bureaucrat, then the system of linear payoffs for all ranks has the following form:

For bureaucrats of rank 2,

\[
H_{12}(S_{n_2}) = (1-\delta)W_{11}(\theta_2|S_{n_2}) + \delta W_{11}(\theta_2|S_{n_2}, t \leq \sigma, \theta_2 \geq \hat{\theta}_2) + \delta W_{11}(\theta_2|S_{n_2}, t > \sigma, \theta_2 < \hat{\theta}_2) \\
+ \delta W_{11}(\theta_2|S_{n_2}, t \leq \sigma, \theta_2 \geq \hat{\theta}_2) + \delta W_{11}(\theta_2|S_{n_2}, t > \sigma, \theta_2 < \hat{\theta}_2)
\]

Similarly, for bureaucrats of rank 2,

\[
H_{22}(S_{n_2}) = (1-\delta)W_{21}(\theta_2|S_{n_2}) + \delta W_{21}(\theta_2|S_{n_2}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + \delta W_{21}(\theta_2|S_{n_2}, t > \sigma, \theta_3 < \hat{\theta}_3) + \delta W_{21}(\theta_2|S_{n_2}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + \delta W_{21}(\theta_2|S_{n_2}, t > \sigma, \theta_3 < \hat{\theta}_3)
\]

s.t. \( \mu_2(\theta_2 - \hat{\theta}_2) \geq 0 \),

which is the hierarchical budget constraint imposed on bureaucrats of rank 2 who are both monitored by the principal and monitor bureaucrats of rank 3, and \( \mu_2 \) is a parameter. Similarly, for bureaucrats of rank 3, who are just monitored by bureaucrats of rank 2,
\[ H_{32} = (1 - \delta)W_{31}(\theta_3) + \delta W_{31}(\theta_3 | t \leq \sigma) + \delta W_{31}(\theta_3 | t > \sigma) + \delta W_{31}(\theta_3 | t \leq \sigma) + \delta W_{31}(\theta_3 | t > \sigma) \]

s.t. \( \mu_t(\theta_1 - \hat{\theta}_1) \geq 0 \)

**Proposition 3:** Obedience is more likely than ex-ante efficiency to lead to public goods provision.

**Corollary 3a:** Bayesian monitoring weakly dominates ex-ante (synchronic) monitoring such that \( H_{ik}(S_{ni-1}) \geq W_{ik} \) and \( n_2 \hat{\theta}_2 + n_2 \hat{\theta}_3 + \pi \geq t \), where \( \lim_{\delta_t, \delta_t \to \delta_0, \delta_1} \theta_1 = \pi < \hat{\theta}_1 - \varepsilon \).

**Proof of Proposition 3**

To show that obedience is more likely to lead to public goods provision than ex-ante efficiency I show that Bayesian monitoring strictly dominates ex-ante (synchronic) monitoring. The ex-ante monitoring payoff for bureaucrats of rank 2 is \( W_{21}(\theta_2) = (1 - \delta)W_{21}(\theta_2) + \delta \max W_{21}(\theta_2) \) and their Bayesian monitoring payoff is \( H_{22}(S_{n_i}) = (1 - \delta)W_{21}(\theta_2|S_{n_i}) + \delta W_{21}(\theta_2|S_{n_i}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + \delta W_{21}(\theta_2|S_{n_i}, t > \sigma, \theta_3 < \hat{\theta}_3) + \delta W_{21}(\theta_2|S_{n_i}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + \delta W_{21}(\theta_2|S_{n_i}, t > \sigma, \theta_3 < \hat{\theta}_3) - \lambda \mu_t(\theta_2 - \hat{\theta}_2) \Rightarrow \max W_{21}(\theta_2) \leq W_{21}(\theta_2|S_{n_i}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + W_{21}(\theta_2|S_{n_i}, t > \sigma, \theta_3 \geq \hat{\theta}_3) + W_{21}(\theta_2|S_{n_i}, t \leq \sigma, \theta_3 < \hat{\theta}_3) + W_{21}(\theta_2|S_{n_i}, t > \sigma, \theta_3 < \hat{\theta}_3) - \lambda \mu_t(\theta_2 - \hat{\theta}_2) \),

where \( W_{21}(\theta_2) \) is a payoff function, discontinuous at \( t \), and it is possible for bureaucrats of rank 2 either to contribute below or above \( \hat{\theta}_2 \), whereas they are incentivized to contribute at least \( \hat{\theta}_2 \) under obedience (right-hand side payoff), because the principal can find out whether they free-ride and reduce his own contribution toward the public good to such an extent that the public good is not delivered and therefore free-riding does not make them better off. For a rank-2 bureaucrat, the principal’s free-riding threat in case he contributes below \( \hat{\theta}_2 \) is weakly more credible than any rank-3 bureaucrat’s contribution signal below \( \hat{\theta}_3 \). Thus, given their dual function in this type of game, bureaucrats of rank 2 have higher incentives to contribute rather than free-ride at the expense of the collective, even when their supervisees of rank 3 do so. The public good is more likely to be delivered under obedience. Rank-3 bureaucrats contribute less consistently above \( \hat{\theta}_3 \), because they do not have any immediate supervisees and thus they do not know how much the other members of the collective contribute. The principal enforces rather than tolerates obedience; nevertheless, he is also more likely to increase his contribution under obedience such that \( \pi > 0 \) because his contribution is not be manipulated by his supervisees. Obedience sacrifices the middle-level bureaucrats (rank 2) for the benefit of the principal and low-level bureaucrats (rank 3). Thus, the equilibrium has the following form:
\[\lim_{\theta_2, \theta_3 \to \theta_2, \theta_3} \theta_1, \liminf_{\theta_2, \theta_3 \to \pi, \pi} \theta_2, \liminf_{\theta_2, \theta_3 \to \pi, \pi} \theta_3 \Rightarrow \{\hat{\theta}_1 - \pi, \hat{\theta}_2, \hat{\theta}_3\}.\]

It becomes obvious, that while the principal free-rides, bureaucrats of rank 2 and 3 do not. The public good is delivered under the conditions that \(t \leq n_2\hat{\theta}_2 + n_3\hat{\theta}_3 + \hat{\theta}_1 - \pi\) and \(\hat{\theta}_1 \geq \pi\).

**Proof of Corollary 3a**

It follows from the proof of proposition 3.

If Protestantism and Eastern Orthodoxy are the individualist and collectivist corners of Christianity, then synchronic and Bayesian monitoring are their equivalent structures in administrative organization and policy enforcement. The Protestant immediate supervisor assumes that there is no need for learning in period 1 about the performance of the bureaucrats that he supervises. On the contrary, he treats private consumption as more important than the delivery of the public good. The Eastern Orthodox immediate supervisor treats public goods delivery as a strictly dominant strategy over private consumption. The existence of the *ex-ante* efficiency-obedience tradeoff provides useful insights about the religious core of public goods distribution by administrative agencies.

### 4.3.4 Universal Discipline

I now assume that the principal can punish bureaucrats of rank 2 and 3 in period 2, if the public good is not delivered in period 1. The model is set up as follows:

1. In period 1 I assume that the public good is not delivered such that \(n_2\theta_2 + n_3\theta_3 + \theta_1 < t\).
2. In period 2 the principal enforces a planned contribution on all bureaucrats of rank 2 and rank 3 such that \(n_2\theta_2' + n_3\theta_3' + \theta_1 = t\).
3. In period 3 bureaucrats of rank 2 and rank 3 are allowed to contribute freely toward the public good. The idea is that they will contribute in the interval \(\theta_1 \in [\hat{\theta}_1, \chi_1]\) as a result of the previously enforced discipline. The discipline is defined as collective because it does not distinguish between bureaucrats that did free-riding and those who did not. Contrary to obedience, where free-riding is punished in the form of counter-free-riding by the immediate supervisor, here the principal enforces horizontal and rank differentiated penalties on his supervisees in round \(n+1\).

Their payoffs have the following form:

\[
D_{13}(S_{n_2}, S_{n_3}) = (1-\delta)D_{11}(\theta_1|S_{n_2}, S_{n_3}, t > \sigma) + \delta D_{11}(\theta_1|S_{n_2}, S_{n_3}, t = \sigma) + \\
\delta^2 D_{11}(\theta_1|S_{n_2}, S_{n_3}, t \leq \sigma) + \delta^2 D_{11}(\theta_1|S_{n_2}, S_{n_3}, t > \sigma).
\]

Similarly for bureaucrats of rank 2 and 3,
\[ D_{23} = (1 - \delta)D_{21}(\theta_2|t > \sigma) + \delta D_{21}(\theta_2^p) + \delta^2 D_{21}(\theta_2|t \leq \sigma) + \delta^2 D_{21}(\theta_2|t > \sigma). \]
\[ D_{33} = (1 - \delta)D_{31}(\theta_3|t > \sigma) + \delta D_{31}(\theta_3^p) + \delta^2 D_{31}(\theta_3|t \leq \sigma) + \delta^2 D_{31}(\theta_3|t > \sigma). \]

Just like under obedience, the principal expects from the other bureaucrats to abide at least by the minimum standard \( \hat{\theta}_1 \). The difference is that now he has the ability to enforce it as well. The effects of this principle are traced in period 3 when bureaucrats of rank 2 and 3 are free again to choose independently their contribution to the public good.

**Proposition 4:** Under universal discipline, the principal sets \( \hat{\theta}_2^p \) and \( \hat{\theta}_3^p \) such that \( \theta_1 = 0 \) and \( n_2\theta_2^p + n_3\theta_3^p \geq t \).

**Corollary 4a:** In period 3 the principal contributes \( \theta_1 = 0 \), such that \( \lim_{\alpha \to \chi_2} \theta_2 = \hat{\theta}_2 \), and \( \lim_{\alpha \to \chi_3} \theta_3 = \hat{\theta}_3 \). This is a weakly dominant strategy and a Nash equilibrium in mixed strategies, as \( \theta_2 \in (\hat{\theta}_2, \chi_2) \) and \( \theta_3 \in (\hat{\theta}_3, \chi_3) \).

Universal discipline can also be defined as disciplinary monitoring. Therefore, the following proposition holds:

**Proposition 5:** Disciplinary monitoring weakly dominates Bayesian monitoring such that \( D_{ik}(S_{n,i}) \geq H_{ik}(S_{n,i}) \).

**Corollary 5a:** Public goods thresholds are more likely to be fulfilled under disciplinary monitoring rather than under Bayesian monitoring.

**Proof of proposition 4**

Because the principal can enforce rank differentiated penalties on his supervisees, he has the incentive to transfer the total cost of public good delivery onto them and free-ride at their expense.

**Proof of corollary 4a**

Because in period 2 (universal discipline) the principal almost confiscates the initial endowment of rank-2 and rank-3 bureaucrats such that \( \theta_2^p \) is in the neighborhood of \( \chi_2 \) and \( \theta_3^p \) in the neighborhood of \( \chi_3 \), in period 3 rank-2 and rank-3 bureaucrats contribute more than the hierarchically defined minimum \( \hat{\theta}_1 \) and less than their initial endowment \( \chi_1 \). They have the incentive to be at least as worse off as under period 2. Therefore, their contribution set lies in the open interval \( (\hat{\theta}_1, \chi_1) \), where \( \hat{\theta}_1 \) is the infimum and \( \chi_1 \) is the supremum. In this case, the principal is also incentivized to bid zero, because the threshold he set is reached anyway.

**Proof of proposition 5**

It is necessary to prove that

\[ D_{21}(\theta_2^p) + \delta D_{21}(\theta_2|t \leq \sigma) + \delta D_{21}(\theta_2|t > \sigma) \geq \]
Because Bayesian monitoring is a two-period model and collectivist disciplinary monitoring is a three-period model, I compare the payoffs from the two last period of collectivist disciplinary monitoring in order to have some consistency.

First, \( D_{21}(\theta_2^e) \geq W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + W_{21}(\theta_2|S_{n_1}, t > \sigma, \theta_3 \geq \hat{\theta}_3) \)

\[ (1 + \delta)W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + (1 + \delta)W_{21}(\theta_2|S_{n_1}, t > \sigma, \theta_3 \geq \hat{\theta}_3) \]

\[ (1 + \delta)W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 < \hat{\theta}_3) + (1 + \delta)W_{21}(\theta_2|S_{n_1}, t > \sigma, \theta_3 < \hat{\theta}_3) \]

because \( \theta_2^e \) is in the neighborhood of \( \hat{\chi}_2 \) and therefore the public good is definitely delivered, whereas the only case where the same certainty holds under obedience is when \( W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) \) such that \( W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) = D_{21}(\theta_2^e) \). In all other cases, universal discipline strictly dominates.

Second, \( D_{21}(\theta_2|t \leq \sigma) + D_{21}(\theta_2|t > \sigma) \geq W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 \geq \hat{\theta}_3) + W_{21}(\theta_2|S_{n_1}, t > \sigma, \theta_3 \geq \hat{\theta}_3) \)

\[ W_{21}(\theta_2|S_{n_1}, t \leq \sigma, \theta_3 < \hat{\theta}_3) + W_{21}(\theta_2|S_{n_1}, t > \sigma, \theta_3 < \hat{\theta}_3) \]

because \( \theta_2 \) lies in the open interval \( (\hat{\theta}_2, \hat{\chi}_2) \), and therefore rank-2 bureaucrat will always contribute more in period 3 of universal discipline rather than in period 2 of obedience. Hence, thresholds are more likely to be reached that way as well. The same holds for rank-3 bureaucrats as well. The marginal utility from collective welfare will always be higher for any bureaucrat under universal discipline rather than obedience.

**Proof of corollary 5a**

It follows from the proof of proposition 5.

Thus, the equilibrium has the following form:

\[ \liminf_{\theta_1, \theta_3 \to \theta_2^e, \theta_3^e} \{ \theta_1: \theta_1 < \hat{\theta}_3 \}, \liminf_{\theta_1, \theta_3 \to \theta_2^e, \theta_3^e} \{ \theta_2: \theta_2 > \hat{\theta}_2 \}, \liminf_{\theta_1, \theta_3 \to \theta_2^e, \theta_3^e} \{ \theta_3: \theta_3 > \hat{\theta}_3 \} \Rightarrow \{ \hat{\theta}_2 + \epsilon, \hat{\theta}_3 + \epsilon \} \]

The public good is delivered under the condition that \( t \leq n_2(\hat{\theta}_2 + \epsilon) + n_3(\hat{\theta}_3 + \epsilon) \).

Universal discipline is the most effective mechanism for the provision of public goods in an Orthodox bureaucracy. The imposition of planned contributions in period 2 induces alignment of hierarchically inferior bureaucrats with the expectations of the principal for the purpose of collective welfare. There is a progressive increase of contributions across principles such that obedience and universal discipline can form a continuum of **degrees in Orthodox collectivist enforcement**, which can be observed also with different variations in Islamic and Judaic economic systems.

### 4.4 Experimental Design

The public goods experiment, which I propose to test and expand the propositions of the aforementioned model, involves bureaucrats in the multifunctional centers for the
provision of state and municipal services as well as the regional administration headquarters in the cities of Tomsk and Novosibirsk. Bureaucrats have the professional duty to deliver public goods. I intend to test the extent to which the principles that defined both Soviet collectives and Orthodox monasteries hold when it comes to the contemporary Russian bureaucracy.

I select 8 bureaucrats based on their availability during their lunch break. I make sure that they understand the rules of the experiment and are willing to participate into it. They sit in the same room, but they have no eye contact with each other. I assign them randomly to three groups of different administrative rank. Each rank corresponds to a different income level: 15.000 for the principal, 10.000 RUB for bureaucrats of rank 2 and 7.000 for bureaucrats of rank 3. It needs to be stressed here that there have been no real monetary rewards involved in my experiments, due to financial constraints and current political restrictions.

Rank 1 has 1 member, rank 2 has 3 members and rank 3 has 4 members. The threshold public good is set by the principal (rank 1) given the constraint that 15.000 RUB < Threshold Public Good < 73.000 RUB. If the public good is not reached, all of them lose L = 5.000 RUB. If the public good is reached, they gain M = 2.500 RUB so that M < L. I repeat the experiment on 10 different days with multiple of combinations of bureaucrats and administrative ranks. It is possible that a bureaucrat participates in more than one experiments, but never in the principal position more than once and never in rank 2 or 3 more than twice.

I apply the following treatments to find whether the principles of Byzantine Orthodox monasticism are reflected on Russia’s modern administrative structures and the distribution of public goods:

**Treatment 1 (Standard Form with Rank Differentiation and Thresholds):** No information exchanged among the experiment subjects. This is the standard public goods experiment.

**Treatment 2 (Solidarity):** It is specified that the threshold public good has a social welfare direction such as the construction of a house for disabled or elderly people.

**Treatment 3 (Obedience):** Each bureaucrat is obliged to report her contribution to her immediate supervisor after each round is completed.

**Treatment 4 (Universal Discipline):** Each bureaucrat is obliged to report the contribution that the highest bureaucrat in the group hierarchy decides for her in round n+1, if the threshold value is not reached in round n. The principal must enforce such penalties to bureaucrats of rank 2 and 3, so that the public good threshold is fulfilled.

As it has been aforementioned, treatments 2-4 are defined as *degrees of Orthodox collectivism* or rather *degrees of Orthodox collectivist enforcement*. Each experiment is run for

---

15 rounds per treatment. I run a total of 10 experimental sessions. The hypotheses I want to test are the following:

**Hypothesis 1:** It is more likely to reach the threshold value of the public good under the condition \( AGC_{T_i} > AGC_{T_j} > AGC_{T_k} > AGC_{T_l}, \) where \( AGC_i \) is average group contribution for any treatment \( i \in \{T_1, T_2, T_3, T_4\}. \)

**Corollary 1a:** It is more likely to reach the threshold value of the public good under the condition \( ARC_{T_4} > ARC_{T_3} > ARC_{T_2} > ARC_{T_1}, \) where \( ARC_i \) is average rank contribution for any treatment \( i \in \{T_1, T_2, T_3, T_4\}. \)

This hypothesis is the first application of my theory on the degrees of Orthodox collectivist enforcement. Universal discipline is treated as the most effective form of enforcement in an administrative agency that imitates the organizational principles and structures of the Eastern Orthodox monastery. This hypothesis is a behavioral extension of the equilibrium solutions proposed in the formal part of this paper, where the abrogation of the bureaucrat’s attachment to private benefits is more likely to lead to the fulfillment of the defined threshold value. Patriarchal social structures, collectivist perceptions of property and welfare, and surveillance incentives render more likely the fulfillment of collective welfare under a quasi-planned administrative system, where every bureaucrat has to abide by the authority of the principal in public goods provision.

**Hypothesis 2:** The principal is likely to free-ride more than bureaucrats of rank 2 and 3 under treatment 4 than any other treatment so that \( ARC_{T_4} < ARC_{T_3} < ARC_{T_2} < ARC_{T_1}, \) where \( ARC_{r_1} \) is average rank contribution for rank 1 and any treatment \( i \in \{T_1, T_2, T_3, T_4\}. \)

This hypothesis is a second-order condition of the first one. Now, instead of looking at the fulfillment of the threshold value, I look at the absolute, cross-round and cross-treatment relative contributions of the principal. Universal discipline allows him to free-ride much more than under obedience, solidarity or the standard form, because in that case he has the information monopoly and this does not reduce the probability of threshold fulfillment.

It is important to note that the mirror hypothesis here is that bureaucrats of rank 2 and 3 will free-ride progressively less across these four treatments. My expected outcome is the inverse of the previous hypothesis: universal discipline rather than hierarchy or solidarity motivates the agent to abide by the rules of the administrative collective.

**Hypothesis 3:** The higher the average group profit, the higher the average group contribution toward the public good.

**Corollary 3a:** The higher the average rank profit, the higher the average rank contribution toward the public good.

The logic here is straightforward. The more successfully any bureaucrat bids toward public goods provision, the most trust he develops in the collective’s decision-
making processes and thus invests his resources into it. This holds both at the group and the rank level.

4.5 Results

I ran 10 experiments with all 4 treatments and one experiment only with treatments 1 and 4. The experiments run in Tomsk I code as TM and the experiments run in Novosibirsk as NK. The first number denotes the experiment and the second the treatment. Thus, TM11 denotes the first treatment of the first experiment in Tomsk. To present cross-treatment and cross-session effects, I summarize the results by breaking the results both by experiment and by treatment. Thus, I provide the following set of experiments in Tables 4.1-4: TM11-TM14, TM21-TM24, TM31-TM34, TM41-TM44, TM51-TM54, TM61-TM64, NK71-NK74, NK-81-NK84, NK91-NK94, NK101-NK104, TM31A and TM34A. Table 4.1 summarizes average group contribution toward the threshold public good in three-period intervals. Because each experiment has 15 rounds, there are 5 periods per experiment. Tables 4.2-4 cluster for rank: they summarize average rank contribution for ranks 1, 2 and 3. Per Cadsby and Maynes, I count both the times that the threshold public good is achieved in the last three periods and the times it is achieved overall.330

Tables 4.1-4 (see the Appendix) summarize the experimental data per group (Table 4.1) and rank (Tables 4.2-4). In times that the public good is provided under treatment 4, the times where the principal-planner enforces provision are not counted. The logic is to see how many times group cooperation occurs as a learning result of universal discipline rather than to add times of public good delivery that did not occur as an outcome of voluntary cooperation. The same assumption holds for the other three treatments, but without excluding instances of threshold achievement. This is why average group and rank contributions as well as times of public good delivery are measured both in their overall means and in periodic intervals. Table 4.1 provides a very interesting overview of the cross-treatment levels of average group contribution. Under treatment 2 (solidarity), average group contribution is lower than under treatment 1 (standard game). Moreover, under treatment 3, experiment participants contribute more than under treatment 1 or 2, while treatment 4 induces the highest levels of average group contribution so that $AGC_{T4} > AGC_{T3} > AGC_{T1} > AGC_{T2}$. This means that solidarity may not constitute a degree of Orthodox collectivist enforcement as it was initially hypothesized. On the contrary, the perspective of contributing to the provision of social welfare goods that only the more disadvantaged members of the society are going to use discouraged Siberian bureaucrats from contributing a higher percentage of resources from their initial endowment. At the same time, obedience and universal discipline seem to persist as enforcement mechanisms in Russian subnational governments.

330 Ibid.
In tables 4.2-4, average contributions are summarized per rank. The distribution of experiment participants into three ranks with a single principal-planner allows the identification of treatment effects per rank and thus provides some useful findings about the provision of incentives at different hierarchical levels of an administrative agency. The strategies of the principal-planner and bureaucrats of rank 2 and 3 become clearer at this point. The principal-planner, whose contributions are presented per treatment in table 4.2, not only does not free-ride, but he makes the highest contributions toward the threshold public good. What the descriptive data shows in tables 4.2 and 4.3 is that bureaucrats of rank 3 may be the least likely to make a significant contribution in order to deliver the public good in terms of initial endowment percentage (their initial endowment is 7,000 RUB). Similarly, there is a considerable distributive gap between the principal and bureaucrats of rank 2, whose initial endowment is 10,000 RUB. These preliminary observations are tested in conjunction with the aforementioned H1-3. Tables 4.5 and 4.6 provide a series of linear models where average group contribution, average rank contribution, and average rank contribution as a percentage to initial endowment are regressed on exogenous experiment characteristics such as average nominal profit, average real profit and where applicable, treatment and rank dummies (fixed effects). The difference between nominal and real profit lies in the distinction between the net profit that each participant should receive based on experiment instructions and the net profit that she actually thinks that she receives based on the reward records of the net profit sheets collected after the experiment. It is in indirect validity check for my experimental findings.
Figure 4.1 Standard Form

Figure 4.2 Solidarity

Regional Administrations of Tomsk and Novosibirsk
Spring 2011
Figure 4.3 Obedience

Figure 4.4 Universal Discipline
In figures 4.1-4, average group contributions are plotted jointly with thresholds across experiments - TM1, TM2, TM3, TM3A, TM4, TM5, TM6, NK7, NK8, NK9, TM10 for standard form and universal discipline and TM1, TM2, TM3, TM4, TM5, TM6, NK7, NK8, NK9, TM10 for solidarity and obedience. The average difference between the threshold and the average contribution per experiment is progressively smaller in obedience and universal discipline compared to standard form, whereas the biggest average difference per experiment is observed in figure 4.2. This confirms the initial observations drawn from tables 4.1-4. Average group contributions under universal discipline approximate the threshold more than any other treatment. Obedience offers a second-best approximation, while solidarity increases the average difference of the bureaucrats from the planned threshold. The public good threshold is more often reached under conditions of Bayesian and collectivist disciplinary monitoring. Russian bureaucrats of rank 2 and 3 are more inclined to abide by the institutional principles of Orthodox rather than Protestant administrative authority.

| Table 4.5 |
|------------------|----------------|------------------|------------------|
| Regression Results: Average Group Contribution | Fixed Effects (Group Variable: Treatment) |
| | AGC (I) | AGC (II) | AGC_3LP (I) | AGC_3LP (II) |
| Intercept | 45661.5 (15.62)*** | 45384.05 (15.56)*** | 50035.09 (17.25)*** | 49662.88 (17.10)*** |
| Average Nominal Profit | -0.36 (-2.40)** | -0.34 (-2.29)** | -0.41 (-2.78)*** | -0.39 (-2.62)** |
| Average Real Profit | -1084.47 (-0.37) | -1004.00 (-0.34) | -4277.37 (-1.46) | -4181.9 (-1.42) |
| Treatment 2 | 4331.26 (1.47) | 4221.82 (1.43) | 2195.51 (0.75) | 2053.61 (0.70) |
| Treatment 3 | 10676.23 (3.11)*** | 10413.36 (3.04)*** | 6933.44 (2.04)** | 6582.98 (1.93)* |
| Adjusted R-squared | 0.17 | 0.16 | 0.15 | 0.13 |
| No of observations | 42 | 42 | 42 | 42 |

Note: Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. T-statistics are in parentheses. Treatment 1 is a reference for Treatments 2, 3 and 4. Level 1 is a reference for Levels 2 and 3.
Table 4.6

<table>
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<th>Regression Results: Average Rank Contribution</th>
<th>Fixed Effects (Group Variables: Rank &amp; Treatment)</th>
<th>ARC (I)</th>
<th>ARC (II)</th>
<th>ARC_3LP (I)</th>
<th>ARC_3LP (II)</th>
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<td></td>
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<td>(40.50)***</td>
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<td>(7.43)***</td>
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Note: Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. T-statistics are in parentheses. Treatment 1 is a reference for Treatments 2, 3 and 4. Level 1 is a reference for Levels 2 and 3.
In table 4.5, I present the fixed effects output of four different regressions, where average group contribution overall and average group contribution in the last three periods are used interchangeably as dependent variables, while average real profit and average nominal profit used interchangeably in the set of covariates. I run the model with a treatment dummy in order to minimize cross-treatment differences in the effects that the covariates have on the dependent variable, while accounting for the effect of the treatment dummies on it using treatment 1 (standard form game) as a reference variable. The negative significance of both average nominal and real profit at the 1 percent level indicates that 1. Experiment participants actually understood the rules, and 2. Individual profit and collective welfare are orthogonal to each other in the decision-making processes of the Siberian bureaucracy. This implies that failure to deliver the public good in round \( n \) does not prevent them from contributing the same or higher amount from their initial endowment toward that end in round \( n+1 \). Hence, H3 is rejected. Treatment 4 is consistently positively significant at the 1 percent level across the four models. Treatment 3 is positively significant at the 1 percent level only in AGC (II), and thus it does not indicate a powerful effect on the dependent variable. Thus, H1 is rejected.

Table 4.6 reports the fixed effects output with two group variables: rank and treatment. The difference from table 5 is that the dependent variable is average rank contribution rather than average group contribution. In order to trace hierarchical effects per treatment, I provide the distinction between aggregate and hierarchical means. Average real rank profit is negatively significant at the 1 percent level in all three models: ARC (I), ARC_3LP (I) and ARC_%IE (I). The same holds for average nominal rank profit in ARC (II), ARC_3LP (II) and ARC_%IE (II). C3a is rejected.

The orthogonality between average profit and average public good contributions has major theoretical implications. Siberian bureaucrats treat profit as a disincentive from public goods distribution both at the group level and the rank level. There can be no society without self-sacrifice and violation of one’s material horizon. This constitutes the real essence of collectivism. This is in my opinion the core of Eastern Orthodox rationality, which explains the pathologies of economic transition in Russia in the 1990s. Protestant principles of economic development and bureaucratic organization were introduced into a country with an Eastern Orthodox system of bureaucratic incentives and enforcement. This is why the treatment 4 dummy is positively significant at the 1 percent level in all six models of table 4.6; because universal discipline is required to maintain the provision of threshold public goods at the rank level, despite the free-riding strategies of each of the three ranks that form the administrative collective in the public goods experiment. Treatment 3 is positively significant at the 1 percent level in ARC (I) and ARC (II), and at the 10 percent level in ARC_3LP (II). Hence, the ordinal structure of C1a is preserved here for treatments 3 and 4, but not for treatment 2 with respect to treatment 1. Furthermore, the principal is consistently more distributive than bureaucrats of rank 2 and 3, as the negative significance of level 2 and level 3 dummies at the 1 percent level across all six model variations suggests. Thus, H2 is rejected The implementation of degrees of Orthodox enforcement in a Russian administrative
collective underscores that 1. Higher administrative rank requires more self-investment in the delivery of public goods, 2. Individual profit is orthogonal to collective welfare, and 3. The enforcement of public good thresholds is facilitated by the existence of obedience and universal discipline mechanisms for restraining free-riding at the rank and the group level.

4.6 Conclusions

In this paper I analyze religion and more specifically Eastern Orthodoxy as an administrative culture. With a regional focus on Russia, I argue that there is a continuity of administrative norms in the organization of Eastern Orthodox monasteries and Soviet bureaucracies and I project this continuity onto the post-Soviet Russian bureaucracy. Hence, religion is a cultural legacy that is mapped on a national and since I talk about Eastern Orthodoxy on the Russian administrative system. The principal – the hegumen-equivalent of the Byzantine (Hesychast) and early modern Russian monastery – cares about the enforcement of the public good threshold that he himself decided. This is why under conditions of collectivist disciplinary monitoring he threatens bureaucrats of rank 2 and 3 with confiscation of their total income if they contribute less than a minimum threshold \( \hat{\theta}_1 \), different for rank 2 and rank 3. This is why universal discipline strictly dominates the standard ex-ante (synchronous) monitoring. For similar reasons, Bayesian monitoring is strictly preferred to ex-ante (synchronous) monitoring. Under Bayesian monitoring, the principal can learn the actual contribution of his immediate supervisee in period n and strategically adjust in period n+1.

The experiments I ran with bureaucrats of the oblast administrations in Tomsk and Novosibirsk suggest the existence of an Eastern Orthodox rationality. The principal contributes the most toward the threshold public good, while bureaucrats of rank 2 and 3 contribute progressively less. Individual profit is orthogonal to average contribution at both group and rank levels. There is an interesting conclusion to be drawn here about collectivism and the nature of post-Soviet Russian bureaucracy. Unlike in Protestant societies, the idea of the collective is substitute rather than complementary to personal welfare. Russian bureaucrats are public-minded at the expense of their own utility stricto sensu, because they continue the line of Soviet bureaucrats and the latters’ Orthodox institutional vocation. Universal discipline in the form of treatment 4 is necessary to preserve administrative hierarchies and facilitate public goods provision at a minimum threshold. Eastern Orthodoxy has strong political and economic implications. The ideal-type of the Orthodox administrative state prioritizes obedience and collective welfare over individual profit and hierarchical enforcement at the expense of civil rights.
Chapter 5

The Political Economy of Kulturkampf: Comparative Conclusions

5.1 Introduction

Religion has been historically instrumental in state formation and administrative enforcement. States use religious legitimacy to enforce their administrative authority or proclaim their separation from it in order to facilitate equality among their citizens. Throughout my dissertation I claim that the influence of religious norms on states, administrations and citizens is not a matter of rhetorical adherence but institutional continuity. Moreover, I propose that collectivism and individualism reflect on the revealed demand for public goods and social services by citizens. The Kulturkampf in Prussia between 1871 and 1878 indicated the resolve of Chancellor Otto von Bismarck to consolidate the institutional position of the Lutheran Church as an arm of the Prussian state and eradicate the influence of a transnational religious authority, the Vatican, in the administrative affairs of Imperial Germany.

Some of the measures that the Prussian government took for that effect included the abolition of the Catholic section in its Kultusministerium in 1871, the elimination of Catholic influence over school curricula, the exclusion of religious orders from school teaching, and expulsion of the Jesuit order from Germany in 1872. The reaction of the Vatican and Pope Pius IX himself against these measures did not prevent the inauguration of a conference in the Prussian Kultusministerium on August 3rd and 4th 1872 on regulation of state-church relations. The May Laws that were derived out of this conference and entered into force almost a year later, in May 1873 introduced the following changes: 1. Religious duties could be performed only by clergymen that had completed a three-year university course and passed a Kulturexamen (May 11 1873), 2. A newly established royal court of ecclesiastical affairs (May 12 1873) assumed all disciplinary competencies over German priests; state rather than ecclesiastical courts were entitled to decide on the validity of disciplinary measures imposed by ecclesiastical authorities, 3. The effects of ecclesiastical disciplinary measures were constrained in the purely religious sphere (May 13 1873) and 4. The civil effects of ecclesiastical withdrawal were regulated in the same direction (May 14 1873). To expedite the effects of May Laws on the status of the Catholic Church in Prussia the government initiated in 1874 some additional laws that specified or expanded the regulatory reach of its previous initiatives: 1. Civil marriage became obligatory as of March 9 1874, 2. Clergy that did not meet the appointment requirements of the first

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May Law were sent to another area and in case of relapse they were stripped off their citizenship and expelled from the territory of the German Empire. In the cases where episcopal regents were not elected based on the provisions of May Laws then a state commissioner would resume authority over the property of the diocese and 4. In the cases where clergymen are accused of office usurpation they have the burden of proof for their honesty and it is in the court’s discretion to seize the respective office property. Obligatory civil marriage was extended to all German states in 1875, all Catholic orders were dissolved, church councils and community representatives were imposed by the state to improve the monitoring of church property. Until 1876 all the property of the Catholic Church in Prussia came under governmental custody.

In previous parts of my dissertation I argue that Protestantism is inclined to produce liberal or social democracy under conditions of modernization. The formation of German Empire gave rise to the first modern welfare state and facilitated the reinforcement of a middle class earning money from agricultural business, industrial innovation, and the development of small and medium enterprises. The Catholic Church was seen as a continuous impediment to German unification and the hegemonic role of Prussia as a Lutheran state both in Germany and Europe. The Prussian Kulturkampf between 1871 and 1878 can be explained by the following sets of incentives: 1. Bureaucratic expansion and improvement of hierarchical monitoring, 2. Provision of public goods and social services through government channels, 3. Treatment of the state as the sole institution that can represent and optimize collective interests and 4. Transformation of clergymen into bureaucratic experts.

Policies such as state supervision of religious appointments, university training of the clergy, and public management of ecclesiastical property increased state revenues and incorporated the Catholic Church into the imperial administrative system. This abrogation of ecclesiastical autonomy and subjugation of church resources to state control are in line with the basic organizational premise of Protestantism since the Augsburg Peace Treaty in 1555 (cuius regio eius religio). Furthermore, the identification of all spiritual activities with the Prussian state undermined religious institutions as competitive or complementary welfare providers. The introduction of a contractual notion of citizenship based on mutual material concessions between people and government suggests that in Protestantism individual welfare is a sine qua non component of collective welfare.

It is therefore not incidental that secularism has been in the core of modernization theory. The negation of religion as a set of institutions with public powers and its confinement to the private rather than public domain have been key elements in the state formation experiences of the post-revolutionary France, the Soviet Union and Republican Turkey. What I argue here is that secularism is yet another form of Protestant modernization, complementary to business development. The regulation of the status of the Catholic Church in the aftermath of German unification provides

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334 Ibid: 24-25.
ample historical evidence about the institutional effects of Protestantism, which can be observed more clearly in the Catholic rather than the Protestant territories of Prussia. Until Kulturkampf the performance of religious duties by the Catholic clergy was monitored by the spiritual authority of the Vatican and the local government. The substitution of this dual accountability mechanism with a single monitoring institution transformed the Catholic clergy from religious minority representatives to bureaucratic experts, who could pursue their spiritual agenda only in accordance with public finances and the policy preferences of the Prussian bureaucracy. The transformation of religious officials into bureaucratic experts implies that commitment to collective welfare becomes an issue of result-driven administrations rather than hierarchy- or network-driven institutions.

The paper is structured as follows. In section 2, I provide a historical review of the Kulturkampf between 1871 and 1878 with focus on Catholic institutions and their transformation into administrative agencies of the Prussian state. In section 3, I present a formal model of secularization and bureaucratic expertise with reference to individualist and collectivist priests. Section 4 concludes the whole dissertation.

5.2 Kulturkampf, Secularism and Bureaucracy in Prussia, 1871-1878

The Catholic question in Prussia did not emerge in the aftermath of German unification in 1871. Prussian rulers have been making constant efforts since the Reformation to reduce the influence of bishops on local populations and thus the intervention potential of the Pope to domestic politics. The main concentration of Prussian Catholics was in and around the cities of Cologne, Münster, and Paderborn in Northern Rhine-Westphalia, Osnabrück in Lower Saxony, Trier in Rhineland-Palatinate and Fulda in Hessen.336 The creation of a royal-spiritual General Vicariate that would monitor the activities of Catholic foundations and monasteries, and the activities of bishops and the clergy has been a permanent goal of the government since Frederick I. and Frederick-William I.337 However, it would be only in the reign of Frederick II. The Great that the Catholic question would be take a new turn in both Prussia’s relations with the Vatican and the interactions between Catholic bishops and the central bureaucracy. The annexation of Breslau and most of Silesia after the War of Austrian Succession in 1740 led to the inclusion of a major Catholic diocese within the borders of the Prussian state. The subsequent appointment of Count Schaffgotsch as auxiliary bishop and coadjutor of cardinal Sinzendorf was a powerful signal to the Vatican that royal authority was regarded as superior to Vatican’s authority over Prussian subjects of Catholic faith.338 The three partitions of Poland in the second half of the 18th century led to the inclusion of more Catholic populations into Prussia and intensified the pressures for convergence of bureaucratic and spiritual authority under the royal

337 Ibid: 19.
government.\textsuperscript{339} In the period between the end of Napoleonic wars and 1871 the competition between Berlin and the Holy See continued, mainly at the level of central bureaucrats and bishops. The Prussian Constitution of January 31\textsuperscript{st} 1850 guaranteed in articles 12, 15, 16 and 18 freedoms of religious expression, religious associations and education and lifted the government’s veto power on appointment, confirmation, electoral and nomination procedures for filling vacation positions in Catholic dioceses.\textsuperscript{340}

Prussia’s entry to modernization in the aftermath of the 1848 revolution neutralized the conflict between the Crown and the Catholic clergy. Nevertheless, this standstill was not a stable equilibrium. The formation of German Empire reinforced anti-Catholic policies, which led to May Laws of 1873 and numerous protests by high-ranked members of the Catholic clergy. The reaction of the Archbishop of Posen Ledochowski was seen as defiance of royal authority, particularly when he denied passing the control of religious seminaries in Posen and Gnesen to secular authorities.\textsuperscript{341}

Moreover, he expressed his disagreement with the new system of clergy appointment that added state education as a condition for the performance of religious duties in Catholic dioceses.\textsuperscript{342}

The correspondence between the Head of Posen province and Archbishop Ledochowski is indicative of these diametrically different approaches.\textsuperscript{343} In his response to the Head of Posen province who asked for his resignation the Archbishop provides the following points of reasoning to back up his position.\textsuperscript{344} First, he claims that episcopal authority is not contingent upon any state but God; therefore, no state court is in a position to order him to dismiss him from his duties.\textsuperscript{345} Second, only a voluntary resignation is possible with the permission of the Pope, which under the current policies against the Catholic Church in Prussia could not take place.\textsuperscript{346}

The Archbishop argues that he is accountable only to the spiritual authority of the Pope and not the King of Prussia. Thus, May Laws could not have an effect on the administration of seminaries, ecclesiastical property and performance of religious duties. The duality of papal and royal jurisdictions in the territory of the same government is contrasted with the core of secularization: the integration of ecclesiastical jurisdiction into state structures and governmental indifference toward religion. Bismarck’s policies against the Catholic Church reveal the main fallacy of secularism with respect to freedoms of religious minorities. The absence of institutional guarantees both for religious minorities and the religious majority increases the inequality differential between the two sides and perpetuates the incumbency advantage of the dominant religion. Rather

\textsuperscript{339} Ibid: 32-33.
\textsuperscript{340} Ibid: 49-50.
\textsuperscript{342} Ibid: 103-104.
\textsuperscript{343} Ibid: 107.
\textsuperscript{344} Ibid.
\textsuperscript{345} Ibid.
\textsuperscript{346} Ibid.
than providing a special status to the Evangelical Church in Prussia that reformed to the Lutheran and Calvinist congregations in Prussia’s older provinces, the central bureaucracy opted to undermine the independent spiritual and by definition political influence of the Catholic Church in old and new territories. That way, the state gained not only in optimization of central control but also in expanding the size of its civil service with highly educated religious officials that could be used for the advancement of government policies.

Hence, it becomes clear that secularism can be treated as a policy subset of nationalism. This observation is particularly confirmed, if one looks at reviewed archival materials from the diocese of Trier during the peak of Kulturkampf, in the period 1876-78. Holzer, a prominent Trier deputy in the Berlin legislature and Catholic clergyman, points out that Kulturkampf was not an attack against the Catholic Church in Prussia as an institution, but against the politics of Jesuit brotherhoods and Vatican intrigues. Furthermore, he identifies the internal ecclesiastical split between ultramontanism and liberalism as the main cause, which prevented the Catholic Church from utilizing the freedoms granted by the 1848 Constitution not only for itself but also for the people. Ultramontanism underscored the importance of Pope’s right for the spiritual supervision of Catholic dioceses in Germany. Although this form of dual authority had never been met with any resistance in provinces with an overwhelming Catholic majority such as Bavaria, it was seen as a usurpation of the 1848 Constitution in Trier, a diocese that was part of a predominantly Protestant state. The political involvement of Catholic priests as deputies in central politics enhanced the clash between Rome and Berlin. Although Holzer himself defined Kulturkampf as the self-destruction of German liberalism, he made clear that the formation of a civil church that would guarantee individual rights was against ultramontanism proponents. The latter saw the newly developed administrative state as a threat to church freedom, which they defined as complete detachment from state monitoring and non-ecclesiastical institutions. The disciplinary measures undertaken by Vatican delegates against Trier priests that accepted to receive the state salary in the aftermath of May Laws reveal the major intellectual and policy divisions within the body of the diocese, and may provide an ample basis for the analysis of Kulturkampf in terms of institutional transition and bureaucratic expertise.

The dichotomy between ultramontanism and liberalism within the Catholic Church reflected broader ideological divisions in German society. The fierce anticlericalism of German liberals was combined with Bismarck’s motivation to render politically irrelevant the main parliamentary group that represented Catholic interests.

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348 Ibid.
349 Ibid: 15.
351 Ibid.
in the parliament, i.e. the Center fraction.\textsuperscript{353} In that sense, the initiation and entry into force of Kulturkampf laws between 1873 and 1875 and the administrative enforcement of criminal punishments by the bureaucracy mirrored the coalition between the liberal majority in the parliament and the executive branch of the Prussian government.\textsuperscript{354} The metaphysical dimension of the conflict became very acute, as the status of the Catholic Church in society was transformed from a sacred institution whose sovereignty was based on divine law to secular institution whose legitimacy was founded on public law.\textsuperscript{355} Prussian criminal courts dealt with many cases of clerical disobedience against May Laws and their subsequent derivatives, a reality indicating that the secularization was the outcome of unilateral state violence rather than bilateral consensus.\textsuperscript{356} This use of criminal law and procedure undermined the authority of criminal courts, but it also established a negative precedent about the independence of criminal justice to be used by extremist political groups in the years to come.\textsuperscript{357} The Kulturkampf succeeded because it was essentially an achievement of liberal ends with illiberal means. Hence, it becomes clear that secularism is inherently linked with the normative core of Protestant liberalism and the treatment of individuals as rational citizens rather than as dependent community members.

While disciplinary measures against the Catholic Church influenced heavily its social status and the quality of its financial and human resources, they did not manage to eliminate the Catholic Center from Prussia’s representative institutions.\textsuperscript{358} This reality motivated Bismarck to advance a conservative-centrist parliamentary coalition at the federal level, when the national liberals denied to support his trade protectionism policy and the imposition of import tariffs.\textsuperscript{359} The magnitude of this change became obvious with the dismissal of the Minister of Culture Falk and his replacement with von Puttkamer.\textsuperscript{360} While political necessity required a rapprochement between Berlin and Rome, Catholicism as a political lobby never attained the level of institutional and economic independence that it had in Prussia before 1871.

The political and economic logic of Bismarck is crucial here, if we are to model Kulturkampf as a violent transition from duality to secularism. In his parliamentary speech of March 10 1873 he argued that the Kulturkampf was not a unilateral struggle of a protestant dynasty, the Hohenzollern, against the Catholic Church or a war

\begin{footnotesize}
\begin{itemize}
\item[354] Ibid: 182.
\item[355] Ibid.
\item[356] Ibid.
\item[357] Ibid: 194-195.
\item[359] Ibid.
\item[360] Ibid: 23.
\end{itemize}
\end{footnotesize}
between faith and absence of faith.\textsuperscript{361} On the contrary, the Kulturkampf was – according to Bismarck – yet one more manifestation of the traditional struggle between the church and the state.\textsuperscript{362} He understands the transformation of Catholic priests into Prussian bureaucratic experts as a sine qua non modernization condition, which may guarantee internal stability and recognition of Kaiser’s sovereignty as both Prussian king and German emperor.\textsuperscript{363} In his speech of April 24 1873 he suggests that the Catholic Center has no right to speak in the parliament as representative of the Catholic Church.\textsuperscript{364} The dissolution of this exact principal-agent relationship was one of the key Kulturkampf objectives and it is obvious that it largely succeeded in that respect. The Catholic Center failed to prevent May Laws and other law bills from entering into force and being implemented in the territory of Prussia, and as a result it was never able again to actively support a continuation of the Vatican’s formal interference into Prussia’s ecclesiastical affairs. It must be stressed here that Bismarck did not stage the Kulturkampf in order to favor the Evangelical Church in Prussia. His personal indifference toward any form of ecclesiastical organization and his rejection of the church as a community that could complement or determine state interests constituted the core of his general predisposition toward all types of religious institutions.\textsuperscript{365}

It is important to keep in mind that the transition from a clerical state or a state infused by powerful religious authorities to a secular state that declares its commitment to religious equality or ecclesiastical indifference has been common grounds in comparative modernization. French and Russian revolutions are success stories, whereas the backwardness status quo in Austrian and Russian empires during the 19\textsuperscript{th} and early 20\textsuperscript{th} centuries suggests obvious failure stories.\textsuperscript{366} What makes Kulturkampf an interesting paradigm in that set of cases is that it is a violent secularization process, run by a Protestant administration. In previous paths of this dissertation, I have argued that secularism is normatively analogous to Protestantism, because they both view society as a sum of individuals rather than as a self-enforcing community, driven by collectivist norms. Thus, the analysis of Kulturkampf and its effects on the Prussian bureaucracy can provide an ideal type of secular transformation that shapes both political institutions and markets.

5.3 The Model

I define secularization as a game with two players: the executive (E) and the priest (P). The executive wants to transforms priests into bureaucrats and for that

\textsuperscript{362} Ibid.
\textsuperscript{363} Ibid: 212-215.
\textsuperscript{364} Ibid: 228-229.
\textsuperscript{366} The Russian Revolution of 1917 suggests a collectivist modernization story.
reason it offers them a wage \( w_t^E \), where \( t \) denotes the period of the game. The bureaucrat can choose to accept the wage and become a bureaucrat or remain loyal to the church and receive wage \( w^C \) and satisfaction from the social activity of the church such that \( \kappa \frac{d_C}{1-\phi} \), where \( \kappa \) is a parameter denoting the significance of social distribution for the priest, \( d_C \) is the average distribution performed by the church and \( \phi \) is the percentage of wealthy in society. Priests are either collectivist or individualist: collectivist priests care about social distribution by the church rather than their personal welfare, whereas the inverse holds for individualist priests. These privately observed types are denoted as \( \mu \in \{0,1\} \), where \( \mu = 1 \) when the priest is collectivist and \( \mu = 0 \) when the priest is individualist. The sequence of the moves has as follows:

1. \( E \) chooses first-period wage \( w_1^E \) and first-period repression technology \( r_1^E \).
2. \( P \) learns his type \( \mu \) revealed by nature.
3. \( P \) chooses to become a bureaucrat or retain his position in the church.
4. \( E \) chooses second-period wage \( w_2^E \) and second-period repression technology \( r_2^E \).
5. \( P \) chooses whether he will become a politician or not in period 2.

The priest after he has accepted to become a bureaucrat or remain in the church can defend actively the interests of the organization he represents by entering politics or stay indifferent. The utility function of the executive in period 1 has the following form:

\[
V_1^E(w_1^E, r_1^E; w_c^C, d_c^C) = \pi_1^E(w_1^E, r_1^E; w_c^C, d_c^C) - K_1^E(w_1^E, r_1^E; w_c^C, d_c^C)
\]

where \( K_1^E \) is the cost of secularization in period 1 and \( \pi_1^E \) is the profit of secularization for the government such that

\[
\pi_1^E = \begin{cases} 
\ln r_1^E & \text{if } \mu = 1 \\
\ln w_1^E & \text{if } \mu = 0
\end{cases}
\]

The priest can be collectivist with probability \( f \) or individualist with probability \( 1-f \). The payoff of the bureaucracy is transformed in the following way:

\[
V_1^E(w_1^E, r_1^E; w_c^C, d_c^C) = f[\ln r_1^E - L_1^C(r_1^E; d_c^C)] + (1-f)[\ln w_1^E - M_1^C(w_1^E; w_c^C)]
\]

where \( L \) denotes the secularization cost for collectivist priests and \( M \) the secularization cost for individualist priests. It is clear that individualist priests can be attracted with material resources, whereas collectivist priests with repression by the executive.

The payoff for the priest in period 1 is given by the following function:

\[
V_1^P = g_1 + \mu \psi_1 + (1-\mu)w_i, \text{ where } \psi_1 \in \{r_1^E, \kappa \frac{d_C}{1-\phi}\} \text{ and } w_i \in \{w_1^E, w_c^C\}.
\]

This can be rewritten as:

\[
V_1^p = \begin{cases} 
\frac{r_1^E}{1-q}, & \text{if } \mu = 1 \text{ and } \frac{r_1^E}{1-q} \geq \kappa \frac{d_c}{1-\phi} \\
\kappa \frac{d_c}{1-\phi}, & \text{if } \mu = 1 \text{ and } \frac{r_1^E}{1-q} < \kappa \frac{d_c}{1-\phi} \\
d_1^c, & \text{if } \mu = 0 \text{ and } w_1^E \geq w_c \\
w_c, & \text{if } \mu = 0 \text{ and } w_1^E < w_c
\end{cases}
\]

where \( q \) is the percent of ecclesiastical property confiscated by the state. I assume that \( w_2^E = w_1^E + s \), \( r_2^E = r_1^E + y \) where \( s \) and \( y \) are bonus parameters for individualist and collectivist priests respectively such that \( y \geq s \). In period 2, the payoffs of the executive and the priest have the following form:

\[
V_2^p(w_2^E, r_2^E; w_c, d_c) = \tau [f \ln r_2^E + (1 - f) \ln w_2^E] + (1 - \tau) [f \ln r_1^E + (1 - f) \ln w_1^E]
\]

\[
V_2^p = \begin{cases} 
\frac{r_2^E}{1-q}, & \text{if } \mu = 1 \text{ and } \frac{r_2^E}{1-q} \geq \frac{r_1^E}{1-q} \Rightarrow y \geq 0 \\
\frac{r_1^E}{1-q}, & \text{if } \mu = 1 \text{ and } \frac{r_1^E}{1-q} < \frac{r_1^E}{1-q} \Rightarrow y < 0 \\
w_1^E, & \text{if } \mu = 0 \text{ and } w_2^E \geq w_1^E \Rightarrow s \geq 0 \\
w_1^E, & \text{if } \mu = 0 \text{ and } w_2^E < w_1^E \Rightarrow s < 0
\end{cases}
\]

It becomes obvious that in period 2 the executive can choose wages and repression technologies only for those priests that decided to become secularized in period 1. The bureaucracy wants its priests to be politically active and defend the legitimacy of state policies in representative bodies. Priests continue to preserve their type also in period 2. Both types can enter or abstain from politics. The difference between collectivist and individualist priests is that individualist priests require a higher wage to cooperate in period 2 whereas collectivist priests will cooperate only if they observe a lower level of repression. In case they decide not to cooperate, individualist priests receive the same payoff they received in period 1. The current payoff for \( E \) given the two-period structure of the game has the following form:

\[
V^E(w_1^E, r_1^E; w_c, d_c) = V_1^E + \delta V_2^E = f \ln r_1^E - L_1^E(r_1^E; d_c)] + (1 - f)[\ln w_1^E - M_1^E(w_1^E; w_c)] + \\
\delta[\tau f \ln r_2^E + \tau(1 - f) \ln w_2^E] + (1 - \tau) [f \ln r_1^E + (1 - f) \ln w_1^E]
\]

I provide the first-order conditions for the executive:
By the Implicit function theorem, I define the second-order conditions for the executive such that:

$$\begin{align*}
\min \limits_{w_1^E, r_1^E} V^E(w_1^E, r_1^E; w_c, d_c) &= \left[ (1 - f)[\frac{1}{w_i^E} - \frac{\partial M^E_1(w_i^E; w_c)}{\partial w_i^E}] + \delta(1 - f)[\frac{\tau}{w_i^E + s} + \frac{1 - \tau}{w_i^E}] \right] \\
&= \left[ 0 \right] = U^E(w_1^E, r_1^E; w_c, d_c)
\end{align*}$$

$$\begin{align*}
D_{w_1^E, r_1^E} U^E(w_1^E, r_1^E; w_c, d_c) &= \\
&= \begin{bmatrix}
-(1 - f)[\frac{1}{(w_i^E)^2} + \frac{\partial^2 M^E_1(w_i^E; w_c)}{\partial^2 w_i^E}] - \delta(1 - f)[\frac{\tau}{(w_i^E + s)^2} + \frac{1 - \tau}{(w_i^E)^2}] & 0 \\
0 & -f[\frac{1}{(r_i^E)^2} + \frac{\partial^2 L^E_1(r_i^E; d_c)}{\partial^2 r_i^E}] - \delta f[\frac{\tau}{(r_i^E + y)^2} + \frac{1 - \tau}{(r_i^E)^2}]
\end{bmatrix}
\end{align*}$$

$$\begin{align*}
D_{w_c, d_c} U^E(w_1^E, r_1^E; w_c, d_c) &= \\
&= \begin{bmatrix}
-(1 - f)[\frac{1}{(w_i^E)^2} \frac{\partial w_i^E}{\partial w_c} + \frac{\partial^2 M^E_1(w_i^E; w_c)}{\partial w_i^E \partial w_c}] - \delta(1 - f)[\frac{\tau}{(w_i^E + s)^2} \frac{\partial w_i^E}{\partial w_c} + \frac{1 - \tau}{(w_i^E)^2} \frac{\partial w_i^E}{\partial w_c}] & 0 \\
0 & -f[\frac{1}{(r_i^E)^2} \frac{\partial r_i^E}{\partial d_c} - \frac{\partial^2 L^E_1(r_i^E; d_c)}{\partial r_i^E \partial d_c}] - \delta f[\frac{\tau}{(r_i^E + y)^2} \frac{\partial r_i^E}{\partial d_c} + \frac{1 - \tau}{(r_i^E)^2} \frac{\partial r_i^E}{\partial d_c}]
\end{bmatrix}
\end{align*}$$
Thus, I find the following solutions:

\[
\frac{\partial w_i^E}{\partial w_c} = -\frac{1}{(w_i^E)^2} \frac{\partial w_i^E}{\partial w_c} + \frac{\partial^2 M_i^E(w_i^E; w_c)}{\partial w_i^E \partial w_c} + \delta \left[ \frac{\tau}{(w_i^E)^2} \frac{\partial w_i^E}{\partial (w_i^E + s)^2} + \frac{1 - \tau}{(w_i^E)^2} \frac{\partial w_i^E}{\partial w_c} \right] \]  

(1)

\[
\frac{\partial r_i^E}{\partial d_c} = -\frac{1}{(r_i^E)^2} \frac{\partial r_i^E}{\partial d_c} + \frac{\partial^2 L_i^E(r_i^E; d_c)}{\partial r_i^E \partial d_c} + \delta \left[ \frac{\tau}{(r_i^E)^2} \frac{\partial r_i^E}{\partial (r_i^E + y)^2} + \frac{1 - \tau}{(r_i^E)^2} \frac{\partial r_i^E}{\partial d_c} \right] \]  

(2)

I solve for \( \frac{\partial w_i^E}{\partial w_c} \) such that:

\[
\frac{\partial^2 M_i^E(w_i^E; w_c)}{\partial w_i^E \partial w_c} = \frac{\partial w_i^E}{\partial w_c} 2\left[ -\frac{1}{(w_i^E)^2} + \delta \left( 1 - \tau \right) \right] + \delta \frac{\tau}{(w_i^E + s)^2} \]

\[
\frac{\partial w_i^E}{\partial w_c} = \frac{\partial^2 M_i^E(w_i^E; w_c)}{2\left[ -\frac{1}{(w_i^E)^2} + \delta \left( 1 - \tau \right) \right] + \delta \frac{\tau}{(w_i^E + s)^2}} \]

Similarly for \( \frac{\partial r_i^E}{\partial d_c} \):

\[
\frac{\partial^2 L_i^E(r_i^E; d_c)}{\partial r_i^E \partial d_c} = \frac{\partial r_i^E}{\partial d_c} 2\left[ -\frac{1}{(r_i^E)^2} + \delta \left( 1 - \tau \right) \right] + \delta \frac{\tau}{(r_i^E + y)^2} \]

\[
\frac{\partial r_i^E}{\partial d_c} = \frac{\partial^2 L_i^E(r_i^E; d_c)}{2\left[ -\frac{1}{(r_i^E)^2} + \delta \left( 1 - \tau \right) \right] + \delta \frac{\tau}{(r_i^E + y)^2}} \]

The levels of wage and repression imposed by the executive in both periods are rising with the wage offered to priests by the church and the level of social distribution in society. Although the church does not have the institutional means to counter the disciplinary and enforcement agencies of the state, its ability to finance the wages of priests and provide social welfare to poorer people in society make it a critical part of the secularization process.

**Proposition 1:** Collectivist priests prefer to join the state bureaucracy rather than stay in the church if and only if \( \frac{r_i^E}{1 - q} \geq \kappa \frac{d_c}{1 - \phi} \) and \( \frac{\partial^2 L_i^E(r_i^E; d_c)}{\partial r_i^E \partial d_c} < 0 \) such that \( \frac{\partial r_i^E}{\partial d_c} > 0 \).
Corollary 1: Individualist priests prefer to join the state bureaucracy rather than stay in the church if and only if \( w_i^E \geq w_c \) and \( \frac{\partial^2 M_i^E(w_i^E;w_c)}{\partial w_i^E \partial w_c} < 0 \) such that \( \frac{\partial w_i^E}{\partial w_c} \geq 0 \).

Collectivist priests are harder to secularize than individualist priests as repression technology is always more costly than material benefits for the government such that \( \frac{\partial^2 L_i^E(r_i^E;d_c)}{\partial r_i^E \partial d_c} \geq \frac{\partial^2 M_i^E(w_i^E;w_c)}{\partial w_i^E \partial w_c} \). Thus, successful secularization implies that \( \frac{\partial r_i^E}{\partial d_c} \leq \frac{\partial w_i^E}{\partial w_c} \). Rigid commitment to the church as a social welfare provider implies that the bureaucracy is likely to invest more in efficient wage provision rather than the imposition of disciplinary measures. Historical evidence from the Kulturkampf in Prussia between 1871 and 1878 suggests that the prioritization of repression over material benefits undermined the long-term success of secularization among the Catholic community of the state and consolidated the influence of Catholic Center in Prussian and German legislative politics.

Proposition 2: Secularized collectivist priests are inclined to enter politics and support the church policies of the government if and only if \( y \geq 0 \) and \( \frac{1}{\tau} \geq r_i^E - y \).

Corollary 2: Secularized individualist priests are inclined to enter politics and support the church policies of the government if and only if \( s \geq 0 \) and \( \frac{1}{\tau} \geq w_i^E - s \).

I have assumed before that \( y \geq s \), which implies that collectivist priests that have joined the state require a higher bonus in order to enter politics and support the religious policies of the government. Hence, it is obvious why \( s \geq 0 \) and \( y \geq 0 \): both types of priests have no incentive to undertake the cost of their political exposure if their payoff is not higher than their fallback payoff, which they have earned in period 1. Furthermore, I take the conditions \( \frac{\tau}{(r_i^E + y)^2} \geq 1 \) and \( \frac{\tau}{(w_i^E + s)^2} \geq 1 \) suggesting that \( \left[ \frac{1}{(r_i^E)^2}[1 + \delta(1 - \tau)] + \delta \frac{\tau}{(r_i^E + y)^2} \right] \geq 1 \) and \( \left[ \frac{1}{(w_i^E)^2}[1 + \delta(1 - \tau)] + \delta \frac{\tau}{(w_i^E + s)^2} \right] \geq 1 \) given that \( s \geq 0, y \geq 0, w_i^E, r_i^E \in N \). The lower the bonus that the government decides to give to both types of priests, the lower the probability that priests will opt for political involvement. Since \( \frac{\partial r_i^E}{\partial d_c} \leq \frac{\partial w_i^E}{\partial w_c} \) holds for both periods of the game, the bureaucracy can afford providing to individualist bureaucrats a lower bonus. Their wage in period 1 has been increasing in their initial endowment \( w_c \) and therefore they need less additional motivation to become religious activists in favor of the state and subsequently against the church. On the contrary, collectivist bureaucrats expect a higher bonus because their period 1 payoff has been increasing comparatively.
less in their initial endowment $\kappa \frac{d_c}{1-\phi}$. As the experience of Kulturkampf shows, the most successful advocates of Bismarckian church policies were state priests and higher-level clergymen that allied with the government. The more collectivist priests are involved into politics in favor of secularism, the more likely it is to consolidate.

5.4 Comparative Conclusions

In my dissertation I study religion as an institutional phenomenon. My intention is to question the standard approaches in measuring and modeling religion, religiosity and religious institutions. The distinction between collectivism and individualism has been crucial for the development of my research. I provide the following definitions of religious collectivism: 1. High demand for public goods and social services by citizens, 2. Commitment to collective welfare by political leadership, 3. Provision of hierarchical and contractual public goods by local administrations, 4. Overprovision in public goods experiments and 5. Adherence to the social welfare activity of the church by priests. From these five definitions, only the fifth one refers to an explicitly religious institution, the church. The first four definitions are drawn from the study of the Jewish, Eastern Orthodox and Muslim collectives, namely the kibbutz, the monastery and the tariqa. I argue that the treatment of religious collectives as economic systems explains why some economies are more modernized than others, and why some countries are democratic while some others are not.

To support this argument, in my first essay I rank five world religions – Judaism, Eastern Orthodoxy, Roman Catholicism, Islam and Protestantism – on the collectivism-individualism axis such that $\text{Islam} \succ \text{Eastern Orthodoxy} \succ \text{Judaism} \succ \text{Roman Catholicism} \succ \text{Protestantism}$. In their transition from backwardness to modernization states reach different sets of political and economic equilibria. The more collectivist the religion of the majority, the more centralized is the economy and the less representative the polity. Analyzing modernization as a status quo preservation game with Markov Perfect Equilibria (MPE) I find that modernization in a collectivist economy with lower-skilled labor is contingent upon the poor quality of bureaucratic monitoring. Furthermore, when I explain modernization as a decentralization game, I observe that centralized distribution dominates decentralization in the collectivist payoff-dependent state under conditions of higher bureaucratic capacity and lower-skilled labor.

The second step of my research involves the study of religious identity and its effects on perceptions of centralization. I define religious identity both as personal identification with distinct religious traditions and as collective ideas regarding the provision of public goods. I propose that in societies where collectivist religions dominate, local administrations provide welfare guarantees, which I define as hierarchical public
goods. Similarly, in societies where individualist religions dominate, administrations abide by social contracts, which I define as contractual public goods. This is why citizens in collectivist societies are more likely to evaluate positively the central government than in individualist societies; collectivist local administrations are accountable to the central government, whereas individualist local administrations to people. Collectivist religious identity is a powerful predictor of positive attitudes toward the central government. I draw my findings from data that I collected in local administrations in Lipetsk, Krasnodar and Sochi in Russia, and Netanya and Nazareth in Israel. I suggest that religious identity shapes bureaucratic accountability and thus conditions different systems of intergovernmental relations. While Russian local administrations appear to be balancing between the provision of hierarchical and complementary public goods, Israeli local governments provide competitive public goods in the Jewish sector and complementary public goods in the Arab (Muslim and Christian) sector.

The identification of Russian bureaucracy as an economic system defined by the norms of Eastern Orthodox monasticism as those were implemented in Soviet central planning constitutes the core contribution of my third essay. The extension of the standard public goods game with three treatments, derived from principles of Orthodox monastic organization, namely solidarity, obedience and universal discipline, implies that religion matters for political economy as an administrative system. Collectivist disciplinary monitoring weakly dominates Bayesian monitoring and both of them weakly dominate ex-ante synchronic monitoring, which corresponds to the payoff from the standard public goods game. The higher the rank of the bureaucrat in the experiment, the more he contributes toward the public good under universal discipline. Unlike Protestantism, where collective welfare is complementary to individual profit, in Eastern Orthodoxy enforcement of public goods provision is substitute to individual welfare and often occurs at the expense of civil rights.

Violent secularization in Prussia between 1871 and 1878 reveals the Protestant origins of secularism as an economic system that transforms priests and high-level clerics to state bureaucrats. I propose a secularization game where the state interacts with two types of priests under conditions of imperfect information. Collectivist priests care about the social welfare activity of the church and can be attracted only with repression. Individualist priests care only about their personal welfare and can be attracted only with the provision of a higher wage. I find that that collectivist priests are harder to recruit than individualist ones, because the cost of their recruitment is higher and their payoff lower. For that reason, the bureaucracy needs to provide them with a higher bonus in period 2, if it wants them to actively defend its ecclesiastical agenda in representative institutions. The lower the bonus that a bureaucracy decided to give to any type of priests, the less likely they are to increase their loyalty to the state.

I argue that the state is never empty of religion, even when it claims to be. Secularism reflects the Protestant worldview on state-church relations, which has been
manifested in all major historical junctures of state-church separation: from Petrine reforms in Russia to American and French Revolutions. In my dissertation I used experimental, microeconomic and statistical modeling to show that religion matters for political economy not as an separate institution, the church, but primarily as a set of norms that consistently shape the rationality of all players involved in resource distribution and bureaucratic authority.
Bibliography


Clarks Simon and Vadim Borisov, “New forms of labor contract and labor flexibility in Russia”, *Economics of Transition* 7 (3): 593-614.


Kharkhordin Oleg V. *Main Concepts of Russian Politics*, University Press of America, 2005.


Korchagin A. A. “Monitoring of Multifunctional Centers for the Provision of Services to the Population of the City of Lipetsk”, *ANO Center of Economic Education for the Youth*, Lipetsk, May 2010 (In Russian).


Luebbert Gregory (1991), Liberalism, Fascism, or Social Democracy, Oxford University Press.


Appendices

Appendix to Chapter 1

Figure 1.1 Liberal and Social Democratic Parties in Europe
Presidential Elections

Source: Inter-Parliamentary Union, Database: World Elections Results, Geneva 2011.
Figure 1.2 Liberal and Social Democratic Parties in Europe
Parliamentary Elections

Source: Inter-Parliamentary Union, Database: World Elections Results, Geneva 2011.

Figure 1.3 Liberal and Social Democratic Parties in the Middle East
Presidential Elections

Source: Inter-Parliamentary Union, Database: World Elections Results, Geneva 2011.
Appendix to Chapter 3

Table 3.2: Proportion Estimations for Sex, Age, Education and Employment Status

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
<th>Netanya</th>
<th>Nazareth</th>
</tr>
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<tr>
<td><strong>Sex:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
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<td>0.423</td>
<td>0.673</td>
<td>0.644</td>
<td>0.718</td>
<td>0.448</td>
<td>0.376</td>
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<td>(0.032)</td>
<td>(0.018)</td>
<td>(0.021)</td>
<td>(0.022)</td>
<td>(0.029)</td>
<td>(0.040)</td>
</tr>
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<td>(0.032)</td>
<td>(0.018)</td>
<td>(0.021)</td>
<td>(0.022)</td>
<td>(0.029)</td>
<td>(0.040)</td>
</tr>
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<td>0.015</td>
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<td>(0.012)</td>
<td>(0.009)</td>
<td>(0.007)</td>
<td>(0.006)</td>
<td>(0.013)</td>
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<td>0.257</td>
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<td>(0.022)</td>
<td>(0.026)</td>
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<td>(0.019)</td>
<td>(0.023)</td>
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<td>(0.023)</td>
<td>(0.012)</td>
<td>(0.017)</td>
<td>(0.017)</td>
<td>(0.024)</td>
<td>(0.030)</td>
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<td>60 and above</td>
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<td>0.069</td>
<td>0.156</td>
<td>0.054</td>
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<td>(0.046)</td>
<td>(0.006)</td>
<td>(0.012)</td>
<td>(0.013)</td>
<td>(0.021)</td>
<td>(0.019)</td>
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**Education:**

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<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
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<td>(0.004)</td>
<td>(0.009)</td>
<td>(0.021)</td>
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<td>Israeli Sample</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>--------------------------</td>
<td>----------------</td>
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<td>Higher</td>
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<td>0.322 (0.038)</td>
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</table>

| Employment Status:      |
|--------------------------|----------------|
| Unemployed               | 0.173 (0.062)  |
|                          | 0.195 (0.096)  |
|                          | 0.270 (0.017)  |
|                          | 0.118 (0.014)  |
|                          | 0.082 (0.014)  |
|                          | 0.122 (0.019)  |
|                          | 0.336 (0.039)  |
| Civil servant (also military) | 0.131 (0.001) |
|                          | 0.146 (0.010)  |
|                          | 0.131 (0.013)  |
|                          | 0.130 (0.015)  |
|                          | 0.134 (0.017)  |
|                          | 0.139 (0.020)  |
|                          | 0.161 (0.030)  |
| Private sector employee  | 0.381 (0.028)  |
|                          | 0.396 (0.096)  |
|                          | 0.355 (0.018)  |
|                          | 0.356 (0.021)  |
|                          | 0.455 (0.025)  |
|                          | 0.469 (0.029)  |
|                          | 0.255 (0.036)  |
| Entrepreneur             | 0.138 (0.060)  |
|                          | 0.140 (0.047)  |
|                          | 0.044 (0.008)  |
|                          | 0.213 (0.018)  |
|                          | 0.198 (0.020)  |
|                          | 0.104 (0.018)  |
|                          | 0.208 (0.033)  |
| Farmer                   | 0.022 (0.003)  |
|                          | 0.011 (0.006)  |
|                          | 0.001 (0.001)  |
|                          | 0.002 (0.002)  |
|                          | 0.198 (0.001)  |
|                          | 0.007 (0.005)  |
|                          | 0.020 (0.012)  |
| Pensioner                | 0.104 (0.017)  |
|                          | 0.062 (0.033)  |
|                          | 0.087 (0.013)  |
|                          | 0.139 (0.015)  |
|                          | 0.089 (0.014)  |
|                          | 0.087 (0.017)  |
|                          | 0.013 (0.009)  |
| Student                  | 0.071 (0.026)  |
|                          | 0.050 (0.030)  |
|                          | 0.112 (0.012)  |
|                          | 0.043 (0.009)  |
|                          | 0.040 (0.010)  |
|                          | 0.073 (0.015)  |
|                          | 0.007 (0.007)  |

<table>
<thead>
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<th>No of observations</th>
<th>1600</th>
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<tr>
<td>Israeli Sample</td>
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<td>149</td>
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</tbody>
</table>

Note: Standard errors are in parentheses. Robust standard errors are in parentheses for the Russia and Israel samples. They are adjusted for 3 clusters (cities) in the Russian sample and 2 clusters (cities) in the Israeli sample.
Figure 3.1b
Income Distribution

Kernel = Gaussian, bandwidth = $1.9e+03$
Russian Sample

Figure 3.2a
Income Distribution

Quantiles of income
Israeli Sample
### Table 3.3: Total Estimations for Administrative Services

<table>
<thead>
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<th>Service</th>
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<th>Israel</th>
<th>Lipetsk (M)</th>
<th>Krasnodar (M)</th>
<th>Sochi (M)</th>
<th>Netanya (M)</th>
<th>Nazareth (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Protection</td>
<td>334 (165.819)</td>
<td>-</td>
<td>253 (12.833)</td>
<td>55 (7.043)</td>
<td>26 (4.945)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insurance</td>
<td>52 (7.406)</td>
<td>-</td>
<td>24 (4.820)</td>
<td>20 (4.394)</td>
<td>8 (2.805)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Job Placement</td>
<td>64 (9.475)</td>
<td>-</td>
<td>23 (4.722)</td>
<td>27 (5.072)</td>
<td>14 (3.683)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Labor Disputes</td>
<td>22 (14.614)</td>
<td>-</td>
<td>19 (4.304)</td>
<td>1 (1)</td>
<td>2 (1.413)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Civil Services</td>
<td>228 (7.882)</td>
<td>-</td>
<td>92 (8.967)</td>
<td>77 (8.147)</td>
<td>59 (7.130)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Land Property Services</td>
<td>492 (249.267)</td>
<td>-</td>
<td>63 (7.589)</td>
<td>301 (11.710)</td>
<td>128 (9.445)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Legal Services</td>
<td>220 (93.098)</td>
<td>-</td>
<td>32 (5.534)</td>
<td>98 (8.986)</td>
<td>90 (8.419)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Economic Services</td>
<td>87 (97.034)</td>
<td>-</td>
<td>-</td>
<td>1 (1)</td>
<td>86 (8.280)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>407 (106.434)</td>
<td>-</td>
<td>239 (12.658)</td>
<td>76 (8.103)</td>
<td>92 (8.486)</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Education Services</td>
<td>-</td>
<td>41 (15.773)</td>
<td>-</td>
<td>-</td>
<td>- (4.226)</td>
<td>19 (22)</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>-</td>
<td>59 (14.619)</td>
<td>-</td>
<td>-</td>
<td>- (3.695)</td>
<td>46 (13)</td>
<td></td>
</tr>
<tr>
<td>Permits and Land</td>
<td>-</td>
<td>9 (1.804)</td>
<td>-</td>
<td>-</td>
<td>- (2.221)</td>
<td>4 (1.980)</td>
<td></td>
</tr>
<tr>
<td>Business Permits and Signs</td>
<td>-</td>
<td>15 (1.673)</td>
<td>-</td>
<td>-</td>
<td>- (2.960)</td>
<td>9 (6)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.2b
Income Distribution

Kernel = Gaussian, bandwidth = 994.3122
Israeli Sample
<table>
<thead>
<tr>
<th>Service Type</th>
<th>No. of Observations</th>
<th>Mean (S.D.)</th>
<th>Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welfare and Social Services</td>
<td>1695</td>
<td>44 (19.708)</td>
<td>19 (4.226)</td>
</tr>
<tr>
<td>Environment</td>
<td>459</td>
<td>33 (11.281)</td>
<td>16 (3.899)</td>
</tr>
<tr>
<td>Water Department</td>
<td>723</td>
<td>99 (40.157)</td>
<td>85 (7.823)</td>
</tr>
<tr>
<td>Municipal Taxes (Collection)</td>
<td>552</td>
<td>144 (52.863)</td>
<td>68 (7.267)</td>
</tr>
<tr>
<td>Other</td>
<td>420</td>
<td>58 (13.930)</td>
<td>45 (6.197)</td>
</tr>
<tr>
<td>Other</td>
<td>301</td>
<td>85 (40.157)</td>
<td>14 (3.907)</td>
</tr>
<tr>
<td>Other</td>
<td>158</td>
<td>99 (40.157)</td>
<td>14 (3.907)</td>
</tr>
</tbody>
</table>

**Note:** Standard errors are in parentheses. Robust standard errors are in parentheses for the Russia and Israel samples. They are adjusted for 3 clusters (cities) in the Russian sample and 2 clusters (cities) in the Israeli sample.

**Figure 3.3**

How do you evaluate the concentration of state services in the MFC?

[Diagram showing the concentration of state services with labels: 1=Very Negatively, 2=Negatively, 3=Neutrally, 4=Positively, 5=Very Positively]
### Table 3.4: Total Estimations for Central Control

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
<th>Netanya</th>
<th>Nazareth</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is Better in the MFC/LG</td>
<td>710</td>
<td>46</td>
<td>324</td>
<td>207</td>
<td>179</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>I Did Not Like Anything</td>
<td>442</td>
<td>63</td>
<td>148</td>
<td>180</td>
<td>114</td>
<td>46</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>(61.496)</td>
<td>(9.373)</td>
<td>(10.792)</td>
<td>(11.009)</td>
<td>(9.044)</td>
<td>(6.253)</td>
<td>(3.907)</td>
</tr>
<tr>
<td>There is no Difference.</td>
<td>168</td>
<td>58</td>
<td>86</td>
<td>58</td>
<td>24</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>More Familiar Environment.</td>
<td>111</td>
<td>29</td>
<td>53</td>
<td>31</td>
<td>27</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>(10.736)</td>
<td>(5.965)</td>
<td>(7.000)</td>
<td>(5.413)</td>
<td>(5.024)</td>
<td>(4.523)</td>
<td>(2.595)</td>
</tr>
<tr>
<td>More Personalized Treatment.</td>
<td>92</td>
<td>138</td>
<td>28</td>
<td>39</td>
<td>25</td>
<td>103</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>(16.850)</td>
<td>(25.007)</td>
<td>(5.187)</td>
<td>(6.025)</td>
<td>(4.848)</td>
<td>(8.245)</td>
<td>(5.236)</td>
</tr>
<tr>
<td>More Competent Bureaucrats.</td>
<td>138</td>
<td>82</td>
<td>52</td>
<td>37</td>
<td>49</td>
<td>61</td>
<td>21</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>29</td>
<td>14</td>
<td>7</td>
<td>6</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>(4.137)</td>
<td>(5.965)</td>
<td>(3.706)</td>
<td>(2.631)</td>
<td>(2.434)</td>
<td>(4.523)</td>
<td>(2.595)</td>
</tr>
</tbody>
</table>

**No of observations**

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
<th>Netanya</th>
<th>Nazareth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1641</td>
<td>459</td>
<td>691</td>
<td>549</td>
<td>401</td>
<td>301</td>
<td>158</td>
</tr>
</tbody>
</table>

**Note:** Standard errors are in parentheses. Robust standard errors are in parentheses for the Russia and Israel samples. They are adjusted for 3 clusters (cities) in the Russian sample and 2 clusters (cities) in the Israeli sample.
Figure 3.5
Centralization of Social Welfare

Russia

Israel

1=Only to Local Govt
2=Faster with Local Govt
3=Faster with Central Govt
4=Only to Central Govt
5=No Difference

Graphs by Country

Figure 3.6
Public Interest

Russia

Israel

1=More State Services
2=At the Same Proportion
3=More Private Services
4=No Difference

Graphs by Country
Table 3.5a: Political Identity and Degree of Significance in Russia

<table>
<thead>
<tr>
<th>Political Identity</th>
<th>Not Important at all</th>
<th>Not so Important</th>
<th>Important</th>
<th>Very Important</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communist</td>
<td>3</td>
<td>18</td>
<td>29</td>
<td>28</td>
<td>78</td>
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<tr>
<td>Socialist</td>
<td>1</td>
<td>24</td>
<td>25</td>
<td>8</td>
<td>58</td>
</tr>
<tr>
<td>Liberal</td>
<td>8</td>
<td>39</td>
<td>40</td>
<td>15</td>
<td>102</td>
</tr>
<tr>
<td>Democrat</td>
<td>14</td>
<td>125</td>
<td>146</td>
<td>35</td>
<td>320</td>
</tr>
<tr>
<td>Patriot</td>
<td>20</td>
<td>61</td>
<td>136</td>
<td>49</td>
<td>266</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>8</td>
<td>13</td>
<td>9</td>
<td>33</td>
</tr>
<tr>
<td>None</td>
<td>222</td>
<td>300</td>
<td>142</td>
<td>30</td>
<td>694</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>271</td>
<td>575</td>
<td>531</td>
<td>174</td>
<td>1551</td>
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Table 3.5b: Religious Affiliation and Degree of Significance in Russia

<table>
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<th>Religious Affiliation</th>
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<th>Important</th>
<th>Very Important</th>
<th>Total</th>
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<tr>
<td>Eastern Orthodox</td>
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<td>284</td>
<td>732</td>
<td>313</td>
<td>1370</td>
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<tr>
<td>Armenian</td>
<td>1</td>
<td>8</td>
<td>23</td>
<td>14</td>
<td>46</td>
</tr>
<tr>
<td>Muslim</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>Jewish</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Buddhist</td>
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<td>1</td>
<td>5</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Protestant</td>
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<td>1</td>
<td>6</td>
<td>20</td>
<td>28</td>
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<td>Catholic</td>
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<td>1</td>
<td>0</td>
<td>3</td>
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<tr>
<td>Atheist</td>
<td>48</td>
<td>35</td>
<td>9</td>
<td>9</td>
<td>101</td>
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<tr>
<td><strong>Total</strong></td>
<td>96</td>
<td>334</td>
<td>787</td>
<td>372</td>
<td>1589</td>
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</table>
Table 3.6a: Political Identity and Degree of Significance in Israel

<table>
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<tr>
<th>Missing Values</th>
<th>Not Important at all</th>
<th>Not so Important</th>
<th>Important</th>
<th>Very Important</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
<td>17</td>
<td>11</td>
<td>27</td>
<td>41</td>
<td>21</td>
</tr>
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<td>Center</td>
<td>12</td>
<td>11</td>
<td>40</td>
<td>36</td>
<td>4</td>
</tr>
<tr>
<td>Left</td>
<td>2</td>
<td>5</td>
<td>13</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>None</td>
<td>44</td>
<td>70</td>
<td>22</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td>97</td>
<td>105</td>
<td>114</td>
<td>32</td>
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</table>

Table 3.6b: Religious Affiliation and Degree of Significance in Israel

<table>
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<th>Not so Important</th>
<th>Important</th>
<th>Very Important</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jewish</td>
<td>3</td>
<td>10</td>
<td>29</td>
<td>92</td>
<td>107</td>
</tr>
<tr>
<td>Muslim</td>
<td>13</td>
<td>14</td>
<td>25</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>Christian</td>
<td>4</td>
<td>15</td>
<td>15</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Druze</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Atheist</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>45</td>
<td>72</td>
<td>146</td>
<td>112</td>
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</table>
Figure 3.7
Religious Denominations in Nazareth

Figure 3.8
European and Oriental Jews in Netanya

Israeli Sample
Table 3.7: Religious Affiliation and National Consciousness in Nazareth

<table>
<thead>
<tr>
<th></th>
<th>Palestinian</th>
<th>Israeli Arab</th>
<th>Both</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jewish</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Muslim</td>
<td>24</td>
<td>28</td>
<td>32</td>
<td>2</td>
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</tr>
<tr>
<td>Christian</td>
<td>4</td>
<td>36</td>
<td>6</td>
<td>2</td>
<td>48</td>
</tr>
<tr>
<td>Druze</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Atheist</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>64</td>
<td>39</td>
<td>7</td>
<td>140</td>
</tr>
</tbody>
</table>

Figure 3.9
Israeli Arabs and Palestinians in Nazareth

Israel Sample
Table 3.8: Proportion Estimations for Social Activity of Religious Institutions in Russia and Israel

<table>
<thead>
<tr>
<th></th>
<th>Russian Orthodox Church</th>
<th>Chief Rabbinate of Jerusalem</th>
<th>Jerusalem Islamic Waqf</th>
<th>Greek-Orthodox Church of Jerusalem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Negatively</td>
<td>0.019</td>
<td>0.098</td>
<td>0.053</td>
<td>0.125</td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.019)</td>
<td>(0.020)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>Negatively</td>
<td>0.047</td>
<td>0.184</td>
<td>0.091</td>
<td>0.089</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.025)</td>
<td>(0.025)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>Neutrally</td>
<td>0.287</td>
<td>0.377</td>
<td>0.364</td>
<td>0.402</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.031)</td>
<td>(0.042)</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Positively</td>
<td>0.496</td>
<td>0.193</td>
<td>0.265</td>
<td>0.223</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.025)</td>
<td>(0.039)</td>
<td>(0.040)</td>
</tr>
<tr>
<td>Very Positively</td>
<td>0.151</td>
<td>0.148</td>
<td>0.227</td>
<td>0.161</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.023)</td>
<td>(0.037)</td>
<td>(0.035)</td>
</tr>
<tr>
<td>No of Observations</td>
<td>1605</td>
<td>244</td>
<td>132</td>
<td>112</td>
</tr>
</tbody>
</table>

Note: Standard errors are in parentheses. Russian respondents from Lipetsk, Krasnodar and Sochi evaluated the social activity of the Russian Orthodox Church, Israeli Jews from Netanya evaluated the social activity of the Chief Rabbinate of Jerusalem, and Israeli Arabs from Nazareth evaluated the social activity of the Jerusalem Islamic Waqf and the Greek-Orthodox Church of Jerusalem.

Table 3.9: Total Estimations for Governance

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
<th>Netanya</th>
<th>Nazareth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Aid and Well-Being of the People</td>
<td>782 (82,341)</td>
<td>165 (19,595)</td>
<td>400 (13,001)</td>
<td>230 (10,998)</td>
<td>152 (9,579)</td>
<td>118 (8,484)</td>
<td>47 (5,764)</td>
</tr>
<tr>
<td>Protection and Implementation of Civil Rights</td>
<td>802 (79,936)</td>
<td>175 (5,521)</td>
<td>305 (13,070)</td>
<td>262 (10,974)</td>
<td>235 (9,522)</td>
<td>112 (8,4)</td>
<td>63 (6,174)</td>
</tr>
<tr>
<td>Market and Trade Regulation</td>
<td>50 (10,815)</td>
<td>25 (1,211)</td>
<td>15 (3,834)</td>
<td>19 (4,277)</td>
<td>16 (3,920)</td>
<td>17 (4,012)</td>
<td>8 (2,765)</td>
</tr>
<tr>
<td>Development and Reinforcement of the State</td>
<td>203 (11,099)</td>
<td>77 (3,011)</td>
<td>96 (9,100)</td>
<td>64 (7,460)</td>
<td>43 (6,185)</td>
<td>52 (6,570)</td>
<td>25 (4,602)</td>
</tr>
<tr>
<td>Other</td>
<td>10 (1,660)</td>
<td>17 (4,296)</td>
<td>5 (2,230)</td>
<td>2 (1,413)</td>
<td>3 (1,727)</td>
<td>9 (2,960)</td>
<td>8 (2,765)</td>
</tr>
<tr>
<td>No of Observations</td>
<td>1558</td>
<td>459</td>
<td>692</td>
<td>484</td>
<td>382</td>
<td>301</td>
<td>158</td>
</tr>
</tbody>
</table>

Note: Standard errors are in parentheses. Robust standard errors are in parentheses for the Russia and Israel samples. They are adjusted for 3 clusters (cities) in the Russian sample and 2 clusters (cities) in the Israeli sample.
Table 3.10a: Proportion Estimations for Evaluation of Government Performance (Central)

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
<th>Netanya</th>
<th>Nazareth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing Values</td>
<td>-</td>
<td>0.112</td>
<td>0.073</td>
<td>0.116</td>
<td>0.137</td>
<td>0.047</td>
<td>0.181</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.010)</td>
<td>(0.014)</td>
<td>(0.018)</td>
<td>(0.012)</td>
<td>(0.032)</td>
<td></td>
</tr>
<tr>
<td>Very Negatively</td>
<td>0.102</td>
<td>0.090</td>
<td>0.073</td>
<td>0.116</td>
<td>0.137</td>
<td>0.047</td>
<td>0.181</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.059)</td>
<td>(0.010)</td>
<td>(0.014)</td>
<td>(0.018)</td>
<td>(0.012)</td>
<td></td>
</tr>
<tr>
<td>Negatively</td>
<td>0.310</td>
<td>0.252</td>
<td>0.237</td>
<td>0.343</td>
<td>0.4</td>
<td>0.140</td>
<td>0.486</td>
</tr>
<tr>
<td></td>
<td>(0.050)</td>
<td>(0.152)</td>
<td>(0.016)</td>
<td>(0.021)</td>
<td>(0.025)</td>
<td>(0.020)</td>
<td></td>
</tr>
<tr>
<td>Neutrally</td>
<td>0.410</td>
<td>0.339</td>
<td>0.469</td>
<td>0.382</td>
<td>0.339</td>
<td>0.405</td>
<td>0.201</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.089)</td>
<td>(0.019)</td>
<td>(0.022)</td>
<td>(0.024)</td>
<td>(0.028)</td>
<td></td>
</tr>
<tr>
<td>Positively</td>
<td>0.137</td>
<td>0.166</td>
<td>0.180</td>
<td>0.151</td>
<td>0.121</td>
<td>0.226</td>
<td>0.041</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.081)</td>
<td>(0.015)</td>
<td>(0.016)</td>
<td>(0.017)</td>
<td>(0.002)</td>
<td></td>
</tr>
<tr>
<td>Very Positively</td>
<td>0.022</td>
<td>0.040</td>
<td>0.042</td>
<td>0.008</td>
<td>0.003</td>
<td>0.060</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.026)</td>
<td>(0.008)</td>
<td>(0.004)</td>
<td>(0.003)</td>
<td>(0.014)</td>
<td></td>
</tr>
<tr>
<td>No of observations</td>
<td>1559</td>
<td>445</td>
<td>689</td>
<td>490</td>
<td>380</td>
<td>301</td>
<td>144</td>
</tr>
</tbody>
</table>

Note: Standard errors are in parentheses. Robust standard errors are in parentheses for the Russia and Israel samples. They are adjusted for 3 clusters (cities) in the Russian sample and 2 clusters (cities) in the Israeli sample.

Table 3.10b: Proportion Estimations for Evaluation of Government Performance (Local)

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Israel</th>
<th>Lipetsk</th>
<th>Krasnodar</th>
<th>Sochi</th>
<th>Netanya</th>
<th>Nazareth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.012</td>
<td>0.065</td>
<td>0.009</td>
<td>0.014</td>
<td>0.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Negatively</td>
<td></td>
<td>(0.002)</td>
<td>(0.050)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td>(0.006)</td>
<td>(0.026)</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.009)</td>
<td>(0.009)</td>
<td>(0.009)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Negatively</td>
<td>0.027</td>
<td>0.119</td>
<td>0.016</td>
<td>0.037</td>
<td>0.034</td>
<td>0.098</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.027)</td>
<td>(0.005)</td>
<td>(0.009)</td>
<td>(0.009)</td>
<td>(0.009)</td>
<td>(0.018)</td>
</tr>
<tr>
<td>Neutrally</td>
<td>0.152</td>
<td>0.375</td>
<td>0.134</td>
<td>0.209</td>
<td>0.113</td>
<td>0.338</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.048)</td>
<td>(0.013)</td>
<td>(0.018)</td>
<td>(0.016)</td>
<td>(0.029)</td>
<td>(0.018)</td>
</tr>
<tr>
<td>Positively</td>
<td>0.605</td>
<td>0.373</td>
<td>0.597</td>
<td>0.609</td>
<td>0.615</td>
<td>0.462</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.115)</td>
<td>(0.019)</td>
<td>(0.022)</td>
<td>(0.025)</td>
<td>(0.031)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>Very Positively</td>
<td>0.204</td>
<td>0.068</td>
<td>0.244</td>
<td>0.131</td>
<td>0.225</td>
<td>0.075</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td>(0.010)</td>
<td>(0.016)</td>
<td>(0.015)</td>
<td>(0.021)</td>
<td>(0.016)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>No of observations</td>
<td>1558</td>
<td>413</td>
<td>688</td>
<td>488</td>
<td>382</td>
<td>266</td>
<td>147</td>
</tr>
</tbody>
</table>

Note: Standard errors are in parentheses. Robust standard errors are in parentheses for the Russia and Israel samples. They are adjusted for 3 clusters (cities) in the Russian sample and 2 clusters (cities) in the Israeli sample.
Table 3.11a: Russian Orthodoxy

Regression Results: Evaluation of Central Government

<table>
<thead>
<tr>
<th></th>
<th>Ordered Probit (1)</th>
<th>Ordered Probit (2)</th>
<th>IV Probit (1)</th>
<th>IV Probit (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>0.031 (0.017)*</td>
<td>-0.009 (0.041)</td>
<td>0.540 (0.002)***</td>
<td>0.534 (0.031)***</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.094 (0.036)***</td>
<td>-0.066 (0.138)</td>
<td>0.081 (0.023)***</td>
<td>-0.173 (0.139)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.069 (0.019)***</td>
<td>-0.235 (0.031)***</td>
<td>0.005 (0.023)</td>
<td>-0.014 (0.017)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.060 (0.040)</td>
<td>-0.050 (0.056)</td>
<td>0.031 (0.010)***</td>
<td>0.04 (0.033)</td>
</tr>
<tr>
<td>Income</td>
<td>-3.82e-06 (1.56e-06)**</td>
<td>-6.29e-06 (0.00001)</td>
<td>2.62e-06 (7.51e-07)***</td>
<td>9.91e-06 (8.86e-06)</td>
</tr>
<tr>
<td>Local Government Evaluation</td>
<td>0.212 (0.075)**</td>
<td>0.067 (0.074)</td>
<td>-0.003 (0.038)</td>
<td>-0.038 (0.089)</td>
</tr>
<tr>
<td>Centralized Social Welfare</td>
<td>0.012 (0.026)</td>
<td>0.010 (0.070)</td>
<td>0.004 (0.0005)***</td>
<td>0.049 (0.038)</td>
</tr>
<tr>
<td>Public Interest</td>
<td>-0.027 (0.003)***</td>
<td>-0.039 (0.066)</td>
<td>-0.001 (0.017)</td>
<td>0.022 (0.013)</td>
</tr>
<tr>
<td>Russian Orthodox Church</td>
<td>0.235 (0.080)***</td>
<td>0.385 (0.318)</td>
<td>(Instrument)</td>
<td>-</td>
</tr>
<tr>
<td>Orthodox</td>
<td>-0.191 (0.101)*</td>
<td>-0.573 (0.117)***</td>
<td>-</td>
<td>(Instrument)</td>
</tr>
<tr>
<td>Ideologue</td>
<td>0.008 (0.004)**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Patriot</td>
<td>-</td>
<td>-0.011 (0.015)</td>
<td>-</td>
<td>0.002 (0.015)</td>
</tr>
<tr>
<td>No of observations</td>
<td>1362</td>
<td>233</td>
<td>1648</td>
<td>236</td>
</tr>
<tr>
<td>Wald Test for Exogeneity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-square</td>
<td>-</td>
<td>273.16***</td>
<td>1.78</td>
<td></td>
</tr>
<tr>
<td>Pseudo-R2</td>
<td>0.035</td>
<td>0.070</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Robust standard errors are in parentheses, clustered for the three cities of my sample. Governance is the instrumented variable in the IV1-2 models.
<table>
<thead>
<tr>
<th></th>
<th>Ordered Probit (1)</th>
<th>Ordered Probit (2)</th>
<th>IV Probit (1)</th>
<th>IV Probit (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>-0.019 (0.028)</td>
<td>-0.006 (0.047)</td>
<td>0.504 (0.022)**</td>
<td>-0.514 (0.025)**</td>
</tr>
<tr>
<td>Sex</td>
<td>0.361 (0.132)**</td>
<td>-0.084 (0.205)</td>
<td>0.004 (0.108)</td>
<td>-0.149 (0.195)</td>
</tr>
<tr>
<td>Age</td>
<td>0.006 (0.042)</td>
<td>-0.030 (0.088)</td>
<td>0.023 (0.040)</td>
<td>-0.034 (0.063)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.049 (0.034)</td>
<td>0.009 (0.066)</td>
<td>-0.022 (0.033)</td>
<td>0.094 (0.069)</td>
</tr>
<tr>
<td>Income</td>
<td>-8.78e-06 (0.00001)</td>
<td>0.00003 (0.00003)</td>
<td>0.00001 (0.00001)</td>
<td>-5.46e-06 (0.00002)</td>
</tr>
<tr>
<td>Local Government Evaluation</td>
<td>0.831 (0.112)**</td>
<td>0.954 (0.150)**</td>
<td>0.160 (0.162)</td>
<td>0.062 (0.196)</td>
</tr>
<tr>
<td>Centralized Social Welfare</td>
<td>0.017 (0.034)</td>
<td>0.054 (0.059)</td>
<td>0.010 (0.034)</td>
<td>-0.017 (0.058)</td>
</tr>
<tr>
<td>Public Interest</td>
<td>0.060 (0.049)</td>
<td>-0.002 (0.090)</td>
<td>0.049 (0.062)</td>
<td>-0.043 (0.091)</td>
</tr>
<tr>
<td>Chief Rabbinate of Jerusalem</td>
<td>0.260 (0.061)**</td>
<td>0.195 (0.090)**</td>
<td>(Instrument)</td>
<td>-</td>
</tr>
<tr>
<td>Jewish</td>
<td>0.022 (0.077)</td>
<td>0.267 (0.127)**</td>
<td>-</td>
<td>(Instrument)</td>
</tr>
<tr>
<td>Ideologue</td>
<td>-0.033 (0.012)**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Right</td>
<td>-</td>
<td>-0.065 (0.131)</td>
<td>-</td>
<td>-0.114 (0.145)</td>
</tr>
<tr>
<td>No of observations</td>
<td>378</td>
<td>165</td>
<td>396</td>
<td>167</td>
</tr>
<tr>
<td>Wald Test for Exogeneity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-square</td>
<td>-</td>
<td>3.86**</td>
<td>5.71**</td>
<td></td>
</tr>
<tr>
<td>Pseudo-R2</td>
<td>0.196</td>
<td>0.229</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Robust standard errors are in parentheses. Governance is the instrumented variable in the IV1-2 models.
Table 3.11c: Sunni Islam

<table>
<thead>
<tr>
<th>Regression Results: Evaluation of Central Government</th>
<th>Ordered Probit (1)</th>
<th>IV Probit (1)</th>
<th>IV Probit (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>0.025</td>
<td>0.503***</td>
<td>0.511***</td>
</tr>
<tr>
<td></td>
<td>(0.046)</td>
<td>(0.023)</td>
<td>(0.044)</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.288</td>
<td>-0.043</td>
<td>-0.061</td>
</tr>
<tr>
<td></td>
<td>(0.225)</td>
<td>(0.190)</td>
<td>(0.353)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.220</td>
<td>-0.118</td>
<td>-0.142</td>
</tr>
<tr>
<td></td>
<td>(0.067)***</td>
<td>(0.065)*</td>
<td>(0.256)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.044</td>
<td>-0.047</td>
<td>-0.099</td>
</tr>
<tr>
<td></td>
<td>(0.074)</td>
<td>(0.058)</td>
<td>(0.177)</td>
</tr>
<tr>
<td>Income</td>
<td>0.00003</td>
<td>0.00002</td>
<td>0.00005</td>
</tr>
<tr>
<td></td>
<td>(0.00003)</td>
<td>(0.00003)</td>
<td>(0.00008)</td>
</tr>
<tr>
<td>Local Government Evaluation</td>
<td>0.345</td>
<td>0.108</td>
<td>0.078</td>
</tr>
<tr>
<td></td>
<td>(0.145)***</td>
<td>(0.139)</td>
<td>(0.463)</td>
</tr>
<tr>
<td>Centralized Social Welfare</td>
<td>0.069</td>
<td>-0.004</td>
<td>-0.026</td>
</tr>
<tr>
<td></td>
<td>(0.076)</td>
<td>(0.045)</td>
<td>(0.084)</td>
</tr>
<tr>
<td>Public Interest</td>
<td>-0.174</td>
<td>-0.078</td>
<td>-0.069</td>
</tr>
<tr>
<td></td>
<td>(0.066)***</td>
<td>(0.090)</td>
<td>(0.291)</td>
</tr>
<tr>
<td>Jerusalem Islamic Waqf</td>
<td>0.229</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.089)***</td>
<td>(Instrument)</td>
<td>-</td>
</tr>
<tr>
<td>Muslim</td>
<td>-0.076</td>
<td>-</td>
<td>(Instrument)</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Ideologue</td>
<td>0.018</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>No of observations</td>
<td>136</td>
<td>223</td>
<td>148</td>
</tr>
<tr>
<td>Wald Test for Exogeneity:</td>
<td>-</td>
<td>3.46*</td>
<td>0.14</td>
</tr>
<tr>
<td>Chi-square</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo-R2</td>
<td>0.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Robust standard errors are in parentheses. Governance is the instrumented variable in the IV1-2 models.
Table 3.11d: Arab Christianity (Greek Orthodoxy and Eastern Catholicism)
Regression Results: Evaluation of Central Government

<table>
<thead>
<tr>
<th></th>
<th>Ordered Probit (1)</th>
<th>IV Probit (1)</th>
<th>IV Probit (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>0.082</td>
<td>0.505</td>
<td>-0.306</td>
</tr>
<tr>
<td></td>
<td>(0.080)</td>
<td>(0.021)**</td>
<td>(1.281)</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.815</td>
<td>-0.089</td>
<td>-1.028</td>
</tr>
<tr>
<td></td>
<td>(0.250)</td>
<td>(0.181)</td>
<td>(2.185)</td>
</tr>
<tr>
<td>Age</td>
<td>0.043</td>
<td>-0.133</td>
<td>-0.181</td>
</tr>
<tr>
<td></td>
<td>(0.147)</td>
<td>(0.063)**</td>
<td>(0.472)</td>
</tr>
<tr>
<td>Education</td>
<td>0.054</td>
<td>-0.035</td>
<td>-0.202</td>
</tr>
<tr>
<td></td>
<td>(0.085)</td>
<td>(0.053)</td>
<td>(0.182)</td>
</tr>
<tr>
<td>Income</td>
<td>0.00004</td>
<td>0.00002</td>
<td>0.0002</td>
</tr>
<tr>
<td></td>
<td>(0.00007)</td>
<td>(0.00003)</td>
<td>(0.0002)</td>
</tr>
<tr>
<td>Local Government Evaluation</td>
<td>0.447</td>
<td>0.114</td>
<td>0.834</td>
</tr>
<tr>
<td></td>
<td>(0.164)</td>
<td>(0.95)</td>
<td>(1.958)</td>
</tr>
<tr>
<td>Centralized Social Welfare</td>
<td>0.006</td>
<td>0.021</td>
<td>0.139</td>
</tr>
<tr>
<td></td>
<td>(0.116)</td>
<td>(0.050)</td>
<td>(0.282)</td>
</tr>
<tr>
<td>Public Interest</td>
<td>-0.208</td>
<td>-0.047</td>
<td>-0.309</td>
</tr>
<tr>
<td></td>
<td>(0.181)</td>
<td>(0.072)</td>
<td>(0.807)</td>
</tr>
<tr>
<td>Greek-Orthodox Church of Jerusalem</td>
<td>0.470</td>
<td>(Instrument)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(0.111)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideologue</td>
<td>-0.021</td>
<td>-</td>
<td>(Instrument)</td>
</tr>
<tr>
<td></td>
<td>(0.051)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideologue</td>
<td>-0.055</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(0.043)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of observations</td>
<td>61</td>
<td>184</td>
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Note: Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Robust standard errors are in parentheses. Governance is the instrumented variable in the IV1-2 models.
Appendices to Chapter 4

Appendix A

Experimental Instructions

This is an experiment on group decision-making. You are randomly assigned into one out of three groups: 1, 2 or 3. Each group corresponds to a different administrative rank, with 1 being the highest rank. The session will last for fifteen periods per method. In each session you will have to decide how much of your initial private endowment you will contribute to the threshold public good. The value of the threshold public good is defined by the highest-ranked group - group 1 - given the constraint 15.000 RUB < Threshold Public Good < Total Private Endowment.

**Method 1:**
You have fifteen information sheets in front of you. On each of these you will write date and time, your assigned group, the value of the threshold public good and the value of your contribution. If you belong to group 3, your initial individual income is 7000 RUB, if you belong to group 2, your initial individual income is 10000 RUB, and if you belong to group 1, your initial individual income is 15000 RUB.

You will be asked to record the number of cards that you contribute to the public good privately on your information sheet within three minutes. Then raise your hand, and I will come to collect your information sheet. When all of you are finished I will sum up your contributions to the public good and will announce if the threshold is met. In case it is met, all of you earn M = 2.500 RUB. In case it is not met, all of you lose L = 5.000 RUB. Then, you may calculate your net payment on your net payment sheet. For example the income of a group 3 member is 7000 RUB and his contribution 3000 RUB; if the threshold public good is not reached, then his net payment is 7000 - 3000 - 5000 = -1000 RUB, which becomes zero for the purposes of our experiment, and if the threshold public good is reached, then 7000-3000+2500=6500 RUB.

Your initial income in the beginning of each round is unaffected by your net payments in the previous round. In the end of the experiment I will collect your net payment sheets. Examples of a public good can be a bridge, a park or a public hospital. You are definitely going to use it during your lifetime.

**Method 2:**
This procedure is the same as above. The only difference is that this is a threshold social good, i.e. not for all citizens, but only for concrete social groups, such as children, elderly people, and disabled people. Examples of a social good can be a kindergarten, an elderly care house or a community house for disabled people. You may or may not use it during your lifetime.

**Method 3:**
This procedure is the same as above. The only difference is that in the end of each round, I will report your contribution to your immediate supervisor only (the contributions of group 3 members to group 2 members and the contributions of group 2 members to the group 1 person).

**Method 4:**
The procedure is the same. The only difference is that if the threshold value is not reached in the end of any round, groups 2 and 3 will have to make the contribution that group 1 person decides for each of them in the subsequent round so that the threshold public good is reached.
### Table 4.1

#### Summary of Experimental Results

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