

**The Economics of Religion in  
Communist and Post-Communist  
Central Europe**

Habilitation thesis

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# Abstract

The habilitation thesis consists of five papers and a commentary dealing with various issues related to religion in communist and post-communist Central Europe from the economic perspective. The commentary provides an overview of the relevant literature in the economics of religion, outlines the models and methods employed in the papers, as well as their results and limits and opportunities for further research. The first paper provides an economic model of religious organization under repression and offers an explanation for its choice between legal and illegal operation. The second paper focuses on the persistence of opposition in an oppressive regime with particular attention to the case of the Catholic Church in Czechoslovakia. The third paper accounts for the development of religiosity in the post-communist period, both the initial revival and the subsequent decline; the explanation is based on a microeconomic model of household allocation of time. The fourth paper turns attention to the post-communist church-state settlements in Central Europe and tries to explain the unusual duration and the specific outcome of that process in Czechia. The fifth paper examines the attitudes of Czechs towards churches as reflected in the state-paid salaries of the clergy under communism and in the post-communist period. Together, those papers represent pioneering research in the field of the economics of religion in Czechia.

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# Commentary on the collection of papers

## 1. Introduction

Europeans, and Czechs in particular, tend to view religion as something unimportant, marginal or outdated. However, global perspective shows that religion is still alive and well in the world today, and it is a significant factor that shapes people's behavior. Despite the predictions of past decades, and even of past centuries, that the world should secularize, it is still religious; and European secularism is a clear anomaly. Religion definitely deserves the attention of the social sciences, including economics.

Religion is a complex phenomenon that contains psychological, social and transcendent elements. It is open to many scientific approaches – philosophy and theology as well as humanities and the social sciences. At the same time, the picture provided by any of these approaches is necessarily incomplete. Yet it seems important to study religion, especially for its importance in today's world. From the practical point of view, social scientific research seems to be particularly important, as religion influences interpersonal relations and the functioning of society.

Economics has a special position among the social sciences, especially because of its tendency to extend its analysis to various areas of human life. Edward Lazear (2000) summarizes the important characteristics that distinguish economics from other social science disciplines: Economics brings a rigorous language to social scientific research that help to deal with complexity. It builds its models on the assumption of rational and maximizing individuals, which allows the formulation of clear predictions regarding human behavior. It also bases its models on the concept of equilibrium, in a way similar to the natural sciences. The orientation towards equilibrium and its evaluation in terms of efficiency forces economists to consistently address issues that other social sciences do not address. These characteristics make economics an “imperial science” that penetrates the “intellectual territory” that originally belonged to other disciplines. Moreover, according to Lazear, economics is not only a social science, but a genuine science in the same sense as the natural sciences because it produces falsifiable hypotheses and tests them with solid empirical methods.

The economics of religion is an excellent example of economic imperialism. The contemporary economics of religion begins in 1975 and perfectly fits into the imperial spirit of the discipline in the 1970s. However, it can be convincingly shown that the imperial approach is not new; Adam Smith analyzed religion in a remarkably modern way, and he can be described as the first imperial economist (Smith, 1904/1776; Anderson, 1988). However, over the nearly two centuries that

separate the *Wealth of Nations* and the first modern economic analysis of religion (which is Azzi and Ehrenberg, 1975), this area was mostly ignored by economists. It was only with the new effort to extend the economic approach into traditionally non-economic activities, best represented by Gary Becker, that religion regained the attention of economists.

At the beginning, it is necessary to distinguish between several different lines of research in which economics and religion meet. First, a distinction needs to be made between the “economics of religion” and “religious economics” (Iannaccone, 1998). While the first represents a social scientific study of religion, the second presents normative economic theories based on religious teachings. The economics of religion then includes two important lines of research – the application of microeconomic principles to the behavior of individuals and organizations in the context of religion, and the study of the effects of religion on the economy. This second line of the economics of religion, in contrast to the above-mentioned microeconomic analysis, has developed continuously during the twentieth century with increasing dynamics in recent decades. Religious economics is a separate area, undoubtedly interesting and worthy of attention, although perhaps more to philosophers than economists.

Within economics, religion is a small and relatively new area of interest; however, it has already gained some recognition in the field. Two decades ago, Laurence Iannaccone (1998) noted that the economics of religion had not yet earned its own code in the *JEL* classification system, let alone the subfield status that the research of religion enjoys in other social sciences. At least the first part of that note is no longer relevant; the topic of religion has been assigned its own code (Z12) in the *JEL* classification. As for the constitution of a separate subfield, it seems, especially regarding the journals in which economists publish on religion, that the economics of religion remains part of an interdisciplinary and multidisciplinary study of religion rather than a subfield of economics.

The collection of papers submitted here represents a part of an effort to extend the economic analysis of religion into the area of communist and post-communist Central Europe. The papers apply microeconomic theories already established in the economics of religion (Minárik, 2014) and offer new models or extensions suitable for the specific experience of religious groups under communism (Minárik, 2018 and 2022a). Additionally, two papers (Minárik, 2021 and 2022b) focus on the public economic issues associated with the church-state relation in Czechia. Four papers combine theoretical models with empirical research; one paper is largely empirical.

As a collection, these papers present exploratory research in the field. Thus, the research cannot be considered finalized. Still, these papers represent a contribution to the field; they contribute both to the theory and to the understanding of the empirics. The study of religion under repression

surpasses the local context, where it is primarily a historical issue since repressive regimes are still present around the world, notably in China. Moreover, the models proposed in the paper may be applicable beyond the context of religion.

The rest of this commentary is organized as follows. First, it briefly summarizes the current state of knowledge in the economics of religion as well as its application to the problems of religion in communist and post-communist countries. Second, it reviews the methods and models employed in the collected papers. Third, it summarizes the findings from those papers. The final part discusses the findings as well as the limits of the research and outlines possibilities for the further research.

## **2. The current state of knowledge**

The economics of religion has been developing dynamically in recent decades, and there is no textbook codifying the core findings. There are several review publications that can serve as a good introduction to the field. Larry Witham's *Marketplace of the Gods: How Economics Explains Religion* (2010) may well serve a lay reader in particular. Good overview is also provided in the *Oxford Handbook of the Economics of Religion* with contributions by leading authors edited by Rachel McCleary (2011). The work of Ekelund, Hebert and Tollison titled *The Marketplace of Christianity* (2006) is also a suitable introductory reading written by economists. Other topics related to Christianity are developed by Ekelund and Tollison in the *Economic Origins of Roman Christianity* (2011) and in the *Sacred Trust: The Medieval Church as an Economic Firm* written by a team of economists led by Robert Ekelund in 1996. However, none of those publications covers all the topics dealt with by economists of religion. Review articles in the *Journal of Economic Literature* (Iannaccone, 1998; Iyer, 2016) are useful for guidance on various topics. One must also acknowledge the contributions of sociologists of religion based on the theory of rational choice. Key publications were written by Rodney Stark and William Bainbridge (*A Theory of Religion*, 1987) and later by Stark in collaboration with Roger Fink (*Acts of Faith: Explaining the Human Side of Religion*, 2000). Finally, Czech readers may also use my own book as an introductory reading (Minarik, 2018); parts of that book are also used in this commentary.

As outlined above, there are two major lines of research within the economics of religion. The first consists of the application of microeconomic tools to religious behavior, and the other focuses on the effects of religion on economic outcomes, particularly growth and development. The survey of literature is limited to the former part which is relevant to the commented studies. It is structured according to common economics textbooks; it focuses on the demand, the supply, and the market, including its imperfections and regulation.

The demand for religion is difficult to define. From the economic point of view, it can be viewed as the willingness to pay, or bear costs, to obtain religious goods and services. The nature of those goods is subject to discussion. For an illustration, Hull and Bold's (1989) classic paper defines four different benefits associated with religion. The first benefit is temporal welfare; in this respect, churches face competition from many other producers. The second benefit is social goods, i.e. social rules, socialization, income redistribution, and such. The third benefit is the promise of eternal life; unlike the previous, this product is specific to religion. The fourth benefit is an alteration of destiny; in this market, churches also face competition, for example, from science.

The classic analysis of Corry Azzi and Ronald Ehrenberg (1975) focuses on household allocation of time and material resources with regard to religion. The paper provides an economic model explaining several empirical observations – the higher religiosity of women relative to men, black people relative to white people, rural dwellers relative to urban dwellers, as well as the increase in religiosity with age. The model assumes that people allocate time among labor, secular consumption and religious activity.

The assumption of a household's utility maximization leads to several conclusions regarding the behavior of the household's members. First, the members of a household will devote different amounts of time to "afterlife production" in proportion to their income, assuming their productivity is equal in this respect. Further, since investments in the afterlife are not compounded, people will prefer to work at younger ages and to engage in religious production at older ages. This explains the increase in religious participation with age. The growth may be moderated to some extent by increasing wages over the course of life. In general, wages can be interpreted as the opportunity costs of religious participation. In this sense, wage differentials explain not only differences in participation between men and women, but also differences in the observed religiosity of members of minority groups or rural populations.

The model can also be reformulated without including the afterlife, and it may include material resources along with time as inputs into religious production (Sullivan, 1985). Such a model explains both the decision to participate in religious activities and to donate materially (financially). If those inputs are substitutable, an individual with a higher wage rate shall personally participate less in religious activities but shall contribute more materially. The substitution between material support and personal participation puts the differences described above in a new light; it is not necessarily a different level of religiosity, but a different form of religious participation. This line of research is developed in Minárik (2014) with regard to the post-communist transition.

The model mentioned above does not define the production function of religious goods in much detail. It just states that production depends on the amount of time and material goods. Intuitively, the production function should include religious experience, knowledge of rituals and doctrine, and friendship with other believers (Iannaccone, 1998). Religious rituals are likely to be of greater benefit to those who are familiar with them and know their meaning, just as interactions with other believers are more enjoyable if they are friends or acquaintances rather than strangers. Such characteristics can be subsumed under the label of religious human capital.

Laurence Iannaccone came up with the concept of religious human capital, building on the theories of “consumption capital” and “rational addiction” from Stigler and Becker’s classic article *De gustibus non est disputandum* (1977). Iannaccone (1990) applies the religious human capital theory to several areas. The first concerns interdenominational mobility. Religious capital is built intensively through religious education in the family. Therefore, it is not surprising that the religious beliefs of offspring often coincide with those of their parents, and eventual conversions are made to similar rather than different denominations. Another prediction of religious capital theory is that if conversion occurs, it is more likely to happen at a younger rather than a later age. Since human (and religious) capital is generally not subject to depreciation, its value increases with the time it is used. Therefore, the expected value of conversion, i.e., investment in new religious capital, decreases with increasing age. Finally, the decisions about religious production take place at the level of the household, rather than the individual. A theory similar to Iannaccone’s is developed in Minárik (2022a).

The supply in the religious market is somewhat easier to grasp. It consists of organizations providing religious goods. However, in contrast to the standard microeconomic approach, a profit-maximizing firm represents only one of the models that economists use to analyze religious organizations. Alternative models are based on club theory which reflects the interconnection between production and consumption in religious organizations. Both of those theories attempt to explain how religious organizations make decisions about the goods and services they offer, regarding quantity and quality, and regarding the prices, i.e., what they will demand in return.

Adam Smith, in the *Wealth of Nations* (1904/1776), describes the Catholic Church as if it were a large corporation (Anderson, 1988). The same approach can also be found in the modern economics of religion, particularly in the work of Ekelund, Hebert and Tollison and other authors collected in the *Sacred Trust: The Medieval Church as an Economic Firm* (1996). The book analyzes various aspects of the medieval church in the context of its monopoly status. Based on standard theories of monopoly, profit maximization, rent extraction, and transaction costs, it then explains doctrinal and

disciplinary innovations such as the prohibition of usury, the regulation of marriage, the organization of monasteries, and the doctrine of purgatory and indulgences.

Ekelund, Hebert, and Tollison (1989) describe the structure of the medieval church as a response to a situation of successive monopolies. They view the relationship of local providers of spiritual goods (i.e., local clerics and monasteries) to the Catholic Church as that of distributors and a producer. The distributors typically had a local monopoly, as much as the Church had a global monopoly on the provision of spiritual goods. From an efficiency perspective, vertical integration is advantageous in a situation of two monopolies in the supply chain. In the case of the medieval church, given the transaction costs, the integration took the form of a franchise (Davidson, 1995). Since the quality of the spiritual services offered could not be verified by consumers, the Church guaranteed the quality of the services provided; for that guarantee, it received a fee from the local clergy and monasteries.

In a more recent work, Ekelund et al. (1996) characterize the medieval church as a multidivisional firm. According to Oliver Williamson (1975), the multidivisional firm has several characteristics: operational decision-making is left to the individual divisions, elite staff of the headquarters perform advisory and supervisory functions, the headquarters focuses on strategic decision-making, planning, supervision, and resource allocation among the divisions, and the separation of the headquarters from operational decision-making allows senior staff to focus on the overall performance of the organization and to not be consumed by the problems of individual divisions. In the medieval church, the strategic management was in the hands of the curia, headed by the Pope, while local problems were dealt with at the levels of the dioceses, monasteries, or parishes. The control from the headquarters was established through papal legates and nuncios. At the same time, financial contributions to the Holy See allowed for the allocation of resources according to strategic plans, either by directly subsidizing preferred projects (national churches, religious orders, or missionary efforts) or by relieving them of set payments.

The divisional structure also allowed for product differentiation according to the preferences of different customers. Along with the basic product, i.e., salvation, the church always provided a whole “package of products” including theology, liturgy and discipline. Some religious communities targeted the more intellectual and affluent, while others targeted the poor. Land-cultivating monastic orders provided spiritual services to the rural population, while cathedral chapters provided services to the urban population. The church also provided rules and the enforcement of them in different areas, such as loans or marriages (Ekelund, Hebert, and Tollison, 1989; Davidson and Ekelund, 1997).

The view of the religious organization as a club was brought to the economics of religion by Iannaccone (1992 and 1994). Iannaccone starts from the premise that the production of religious goods is collective, and each person's consumption depends on the contribution of others. It is not only about material resources but about the general level of commitment of the other members of the community. The quality of the goods consumed generally increases with the size of the religious group; there is some kind of network effect involved.

The collective nature of production in religious clubs leads to the free rider problem. This problem has two sources. First, if club members are heterogeneous, each member has a different optimal level of commitment. Thus, less active members become free riders without specifically seeking to do so. However, even those unintentional free riders reduce the average commitment of club members, and hence the quality of the consumption of all group members. Second, even when members of a religious organization are homogeneous, free riding may still occur. Participation in joint production is associated with a positive externality which leads to suboptimal activity by rational individuals.

The standard solution to the positive externalities is to subsidize the activity associated with the externality; however, that is frequently not acceptable to religious groups. The alternative to subsidizing religious participation is to ban or penalize alternative activities that use the same resources. Thus, religious organizations may, for example, prohibit the consumption of specific commodities (alcohol, tobacco) or services (secular entertainment). In a heterogeneous population, such regulations help to differentiate people with different levels of commitment and exclude potential free riders. In a homogeneous population, they redirect resources from non-religious activities to their religious substitutes.

Religious restrictions impose additional costs that are seemingly unproductive. Because compliance with those religious restrictions may be difficult to monitor, religious groups may alternatively choose some form of costly sacrifice or stigmatization, such as specific hairstyles or clothing. The sacrifices appear to be unproductive expenditures of scarce resources. However, it is the cost associated with religious prohibitions or stigmatization that allows for the selection of members with high rates of commitment, thus solving the problem of free riders. The sacrifice plays the role of a signal, and a signal must be costly to be effective.

However, the sacrifices required by sects cannot be arbitrary; Iannaccone (1994) points out some limits. First of all, the costs of joining cannot be too high, as they cannot exceed the benefits of membership. At the same time, the religious organization must offer adequate substitutes for the sacrificed secular activities. Excessive or wrongly chosen restrictions lead to the decline of the group.

Iannaccone also speculates on the consequences of the Second Vatican Council for the Catholic Church, where the Church abandoned its uniqueness in liturgy, theology and lifestyle, but kept in place unpopular restrictions on reproduction control and celibacy.

To sum up, there are different possible assumptions regarding the goals of the churches. One option is to model the Church as a profit-maximizing firm, as in the approach of Ekelund et al. (1996). Another option is to assume that the Church behaves like a welfare maximizing club, as is the approach of Iannaccone (1992 and 1994), as well as Barros and Garoupa (2002) and Ferrero (2008). Yet another option is to assume that the Church maximizes its membership or market share; that is the approach of McBride (2010) and Ferrero (2014). One of the commented studies (Minárik, 2018) adopts the idea that the Church maximizes the welfare of its members, which also depends on the size of the organization; that is, there is a network effect involved.

The economics of religion analyzes religion as a market phenomenon. In order to explain the observed religious changes, it is necessary to reflect both sides of the market although a significant part of literature focuses on one side only. The theory of religious markets is sometimes referred to as the supply-side theory. The modern approach to religious market analysis starting from the 1980s focuses on the effect of competition and regulation on people's religiosity. In general, this theory is an extension of standard insights about the consequences of competition, monopoly, and government intervention in the market mechanism. Interestingly, some of the modern contributions reiterate Adam Smith's (1776) classic observations in this area.

There are two opposing theories in this area; one predicts a decline in religiosity, the other a strengthening of it. The secularization theory which links religious pluralism with modernization states that pluralism undermines the credibility of religion, and the consequence is the decline of religiosity (e.g., Berger 1969). The economics of religion leads to the opposite conclusion. Adam Smith observed the adverse effect of established churches on people's religiosity (Smith, 1776; Anderson, 1988). According to Smith, the impact of a religious monopoly is the same as that of an economic monopoly – a decline in the quality of services provided and lower consumer welfare. Smith saw the origins of the Catholic Church's religious monopoly in state intervention and saw the solution to the problem in relaxing regulation.

The idea of the positive effect of competition in the religious market reappeared in the late 20<sup>th</sup> century. The sociologists of religion, Finke and Stark (1988), were the first to formulate a model of the religious economy. According to them, the natural state is a diversity of religious groups offering their services. Even in its prime, the medieval church was surrounded by heresies. Strict regulation may drive competing groups underground, which may superficially appear as a monopoly, but a

relaxing of the regulation leads back to pluralism. A monopoly organization cannot adequately satisfy a segmented religious market. If it tries to cater to one group, it loses another. Small, diversified groups, on the other hand, can adapt to the demand of each market segment, and the overall religiosity of the population will grow. Additionally, Finke and Stark use the argument of the “lazy” monopolist that does not seek to satisfy the needs of its customers. Finke and Stark (2005/1992) empirically tested their theory using data from the United States in the early 20<sup>th</sup> century and developed the idea into a description of American religious history.

That work laid the foundation for the “supply-side” theory of religious markets, which received considerable attention in the 1990s. Anderson (1988) reminded researchers that the idea had been around since Adam Smith. Iannaccone (1991) not only pointed to Smith’s surprisingly modern thinking on religion but also added additional empirical material. His analysis of 17 developed Western countries shows that competition from Protestant churches led to greater religiosity. The paradox is the relative success of Catholic monopolies. Iannaccone tentatively explained it by the internal diversity of the Catholic Church. Diotallevi (2002) has given strong empirical support to this idea in his analysis of Italian religiosity. Finke and Iannaccone (1993) offer an interpretation of the religious history of the United States as a series of supply shifts in the religious market. Among them, they list the deregulation of the religious market after the establishment of the United States and the significant shift in supply in the 20<sup>th</sup> century which resulted from a deregulation of television broadcasting and the rise of “televangelism,” as well as the entry of foreign competition from Eastern religions. Stark and Iannaccone (1994) claim that the religious situation in Europe can also be interpreted within the framework of supply-side theory and that secularization theory no longer has any validity.

In the 1990s, a number of empirical studies examining international or historical differences in religiosity produced mixed results. Zaleski and Zech (1995) report the results of eight studies, three of which speak in favor of the traditional approach and five in favor of the supply-side theory. Most of the studies are based on the number of religionists or rate of church attendance of each denomination and the Herfindahl-Hirschman index as measure of concentration in the religious market. Unfortunately, that approach has proven problematic (see Voas, Crockett, and Olson, 2002). Zaleski and Zech (1995) use financial contributions to churches as an alternative measure of religiosity. They find that concentration in the religious market positively affects the contributions of Catholics but not Protestants, which is inconsistent with previous findings.

The Protestant Reformation has been repeatedly studied as an interesting case of religious market dynamics. Economists analyze it as a transition from a monopoly of the Catholic Church to a

pluralistic religious market with competition between different denominations. Again, this is a topic already addressed by Adam Smith in the *Wealth of Nations* (1904/1776; see also Anderson, 1988). According to Smith, the personal consumption possibilities of clerics grew with the development of production and trade. As a result, they devoted fewer resources to charity, and the church lost its prestige and political power. Secular rulers, more powerful than before, then took advantage of religious divisions to consolidate their position, vis-à-vis Rome and the Catholic Church, which had lost popular support.

Ekelund, Hebert and Tollison (2002, 2004 and 2006) offered a modern economic analysis of the Protestant Reformation and the Catholic Counter-Reformation. They see the Protestant Reformation as a consequence of the monopolistic behavior of the Catholic Church, especially the high prices the Church imposed on the means necessary to achieve salvation. The Protestant churches entered the market with a product that was very similar, preserving the core of the Christian faith without many of the doctrinal innovations of the Catholic Church. Thus, they offered a close substitute for the original product at a much lower price. Ekelund, Hebert, and Tollison also analyzed the Catholic Church's reaction to the entry of a new competitor. Economic theory predicts that the entry of a new firm into a previously monopolistic industry will lead the ex-monopolist to reduce the price, to attempt to increase its own residual demand by increasing competitor's costs, and to reduce the elasticity of demand for its own product through promotion and service improvement. Those predictions are fulfilled in the reforms of the Council of Trent, which were aimed at increasing the attractiveness of the Catholic Church, providing better services and solving governance problems within the Church. At the same time, the Church tried to make conversions to and the operation of Protestant churches more difficult, thereby increasing their costs.

An alternative model of competition is offered by Ferrero (2014 and 2008). Ferrero models the competition between two exclusive religions using the example of Judaism and Christianity in the Roman Empire and the Counter-Reformation. According to Ferrero, the dominant religious group can either allow the entry of the other group, which leads to an outcome corresponding to Stackelberg's oligopoly model, or it can discourage the entrant by committing sufficient or rather excessive capacity. For centuries, the Catholic Church has relied on cooperation with secular power to prevent the spread of heresies. However, that method of controlling entry into the religious market failed in the case of the Hussites and the Lutherans. Therefore, in the period after the Council of Trent and the Peace of Westphalia, the Catholic Church tried to prevent the entry of new competitors into its territories by massive efforts, which were manifested by the building of new and expensive baroque churches, improving the education and control of priests, and founding new orders (such as the Jesuits).

The topic of competition in the religious market is closely related to regulation. Adam Smith (1904/1776) attributed the monopoly position of the Catholic Church to the state guarantee. Similarly, Finke and Stark (1988) argue that pluralism is the natural state of the religious market and that a monopoly can only be established through the forceful suppression of competition. Although monopolies can sometimes be established without state intervention, such as a natural monopoly or a monopoly resulting from the network effect, religious markets typically do not exhibit the characteristics necessary for the emergence of those types of monopolies.

Stark and Finke (2000) argue that an unregulated market economy is pluralistic and composed of more vibrant religious groups. This assertion builds on their earlier thesis that an unregulated market is inherently competitive. The effect of state regulation is often illustrated by examples where the religious market has been deregulated or not. A popular example for the negative effect of state regulation is Sweden (Barro and McCleary, 2005; Finke, 1997; Iannaccone, Finke and Stark, 1997). Some deregulation in the US religious market was already mentioned above with the study of Finke and Iannaccone (1993). Another example is provided by the deregulation of religion in Japan after World War II (Iannaccone, Finke and Stark, 1997). However, Bruce (2000) provides contrary evidence. Cases from post-communist countries are analyzed in Minárik (2014).

The question remains why state religion exists in some countries and not in others. Barro and McCleary (2005) examined the existence of state religions across 188 countries in three periods, 1900, 1970 and 2000. Out of the countries studied, 72 never had a state religion and 58 had undergone one or two changes, i.e., the introduction or abolition of a state religion. The most important factors leading to the establishment of a state religion include the proportion of believers in that religion and its existence in 1900. State religions are also more common in smaller countries.

In addition to the state regulation in favor of a particular religious group, state intervention may aim to eliminate religion as such. Fenggang Yang (2006) analyzes the effects of state regulation on the religious market in China. Efforts of the Chinese government to eliminate religion have resulted in a threefold division of the religious market into a red market of officially sanctioned religious groups, a black market of banned religions, and a grey unregulated market of non-institutionalized religion. The grey market is difficult to measure, which typically leads to an underestimation of the true religiosity of the population. Moreover, regulations that seek to criminalize particular denominations, thereby moving them from the gray market to the black market, only open up space in the gray market for new religious movements. The results are thus both partial growth of the black market, although not everyone is willing to practice the banned religion, and the growth of

new religious movements in the unregulated space. The topic of communist religious repression is developed also in the commented papers (Minárik, 2018 and 2022a).

Many other contributions could have been included in this survey. There is interesting literature on saints and terrorism (Iannaccone and Berman 2006; Ferrero 2002, 2006 and 2013; Barro a McCleary, 2016), corporate governance within monasteries (Inauen et al., 2010a a 2010b; Rost et al., 2010) or the impact of religious reforms on the economy (Bell, 1968). Let us mention one additional approach, the use of public choice theory. Bell (1968) reports on how relaxing of Catholic norms regarding meat abstention on Friday led to a significant drop in the price of fish in the United States. Ault, Ekelund and Tollison (1987) also tried to explain why this change had occurred. They based the explanation on changes in the College of Cardinals where meat-producing countries gained more representation compared to fish-producing countries (see also Thornton, 1992). That explanation is not very persuasive for those who understand the internal structure of the Catholic Church, but it illustrates that public choice theories are applicable to religious organizations. The public choice approach is also developed in one of the commented articles (Minárik, 2021).

### **3. Methodology and models**

Economists of religion use various methodological approaches. Generally, their research approach is in line with that described by Lazear (2000). That is, the researchers formulate models based on the rational choice approach and confront those models with the reality. The papers differ in the presentation of the models – some rely on verbal exposition, and some use rigorous formal (mathematical) modeling. In the empirical verification, they rely on case studies, comparative studies or statistical methods, using both historical and contemporary data.

This section describes the models and methods employed in the commented papers. They represent a combination of different methods used in the economics of religion. For each of the papers, the following text first describes the theoretical approach followed by an outline of the empirical strategy. More details on those aspects can be found in the individual papers. Where the papers contain formal mathematical models (Minárik, 2018, 2022a and 2014), the following text exposes the models only verbally; for the formal models, see the respective papers.

Minárik (2018) aims to account for the different strategies adopted by the Catholic Church under communist repression in different countries. In some countries, the Church operated entirely legally, in some countries only illegally, and in some countries, it diversified its operation between the official and black markets. The paper starts with a comparative case study of communist Czechoslovakia and Poland and formulates an original model to explain the behavior of the Church,

which is an approach similar to that of Ekelund et al. (1996). The comparison points to the differences of the communist anti-church policies in those two countries resulting in the different strategies of the Catholic Church. The model is formulated to account for the difference.

The model assumes that the goal of the church is to maximize the welfare of its members, or to maximize the consumer surplus. This goal corresponds to the club model of the church (Iannaccone, 1992; Barros and Garoupa, 2002; Ferrero, 2008). Alternative approaches that model the church as a profit-maximizing firm (Ekelund et al., 1996) or a firm that maximizes its market share or membership (McBride, 2010; Ferrero, 2014) do not seem fit for the purpose of the paper. The model of the church as a rent-seeking entity offered by Ekelund and his colleagues does not seem relevant to the situation of the repressed Church in communist countries. The maximization of size or market share is typically assumed in models explaining competition in the religious market; however, the goal of the proposed model is to account for rivalry with the state, not with other churches. Thus, the assumption of welfare maximization seems the most natural.

The church is modeled as an organization providing religious goods, but at the same time the production and consumption of these goods is intertwined (see Iannaccone, 1992). Religious goods are divided into two groups – the first is the church membership itself, associated with a lower level of services, a kind of compromise between the church's intended practice and the state regulator; the second is a higher level of religious services fully in line with the church's own intentions. At the same time, the model abstracts from the possible different goals of various groups among members, such as the hierarchy and the laity, and it does not address the mechanism through which decisions are adopted.

Further, it is assumed that believers-consumers have heterogeneous preferences and different religious activities bring different benefits to them. Believers' utility comes from two sources that correspond to the two types of religious goods provided by the church. One source of utility is the religious services provided by the church; the other source of utility is the church membership itself. In this regard, it is further assumed that those who value the religious services provided by the church more also value church membership more. Finally, it is assumed, as in Ferrero (2008), that the utility of membership for individuals increases with the total number of members, that is, the believers prefer to be members of a larger church over a smaller one; there is a network effect to the membership.

Given the regulation imposed by the state, religious organizations have only limited control over the costs of religious participation. Costs in this context represent the total costs of religious activity, including potential sanctions by the state. It is assumed that the costs associated with consuming the

higher level of religious services consistent with the church's intent are higher than the costs associated with the membership and the lower level of religious services consistent with government regulation.

In the model, the choice of a religious organization is constrained to the type of goods it will provide. It can legally provide a lower level of religious services, it can illegally offer a higher level of services, or it can operate in both markets. In the first stage, it is assumed that operating in neither of these markets involves any setup costs. This allows comparison of the different options in terms of the objective pursued by the church, that is, the surplus of believer-consumers. The setup costs are considered later, as they may explain why churches do not always choose the apparently optimal way of providing their services.

The demand for a given church's religious services is derived from the benefits these services bring to the faithful. If a church operates only in the official market, that is, if it provides membership and a lower level of services, it is determined by the utility of those services. If it operates exclusively on the black market, the benefit – and the willingness to pay, or to bear the cost – is the sum of the benefit of both the lower- and higher-level services. Finally, when the church operates in both markets, demand is kinked; only a portion of people derive utility from consuming the higher level of religious services, and the remaining consumers stick with the lower-level services. The surplus of believers-consumers, which is the target of religious organization in our model, is the difference between the utility from religious services and the cost of participation.

The formal model (see Minárik, 2018) leads to several conclusions about consumer surplus in different variants of church operation. Simultaneous provision of religious goods in both the official and black markets is a better option than exclusively legal activity, as long as there is at least one person who prefers the higher level of religious services despite the higher costs involved. Operating in both markets is better than exclusively illegal activity if the legal activity attracts at least one new member to the church. Considering zero cost of building parallel structures to operate in both markets, simultaneous provision of religious goods in both markets is better in any case.

If we consider the costs associated with building parallel structures in both markets, the situation is more complex. In such a case, it is not possible to determine theoretically which of the options is preferable. Nevertheless, several theoretical conclusions can be drawn from the model. Operating in both markets will be the optimal option, where (1) the difference in benefits of the higher-level services compared to the lower-level services are significantly higher than the difference in their costs, and where (2) the benefits of religious participation in a given church are significantly higher than the costs of participation.

These predictions can be applied to the reality of the communist countries of Central and Eastern Europe. First, where the gap between the church-intended and the state-permitted way of participation was large, the model predicts the development of parallel structures in the official and black markets. Conversely, where the compromise between the church and state was more in favor of the church, we expect only official operation. Second, parallel structures are more likely to be built by churches where the membership in that particular church is itself important. This is particularly the case of the Catholic Church, which, compared to the various Protestant denominations, postulates a certain exclusivity in providing the resources needed to achieve salvation.

Minárik (2022a) looks into a different issue that arises under communist rule; the aim is to explain the persistence of opposition in an oppressive regime. That paper takes a similar methodological approach to the previous paper. Again, the paper starts from an empirical observation; in this case, it builds on a case study of the Catholic Church in Czechoslovakia. Then, it formulates an original formal model to account for the observed reality. As with the previous paper, the following text exposes the model only verbally; the formal model is available in the paper itself.

The model is inspired by Ferrero's (2014) account of early Christianity. It assumes two periods, and an individual may join a religious group in any of those periods. Joining in period one is associated with a sacrifice, which can also be interpreted as an investment in religious human capital; the sacrifice increases one's utility from religious participation but decreases her wage rate and subsequently her secular consumption. The individual allocates time between work and religious activity so that she maximizes the total utility received from secular and religious consumption.

There are several predictions resulting from the model. First, the model shows that, with the sacrifice in place, the choice between staying in the group and leaving it in period two is different from the choice between joining and not joining the group in that period. The sacrifice creates a trap that keeps people in, even if they would not join the group otherwise; the sacrifice must be interpreted not as a sunk cost but as a transaction-specific investment. Also, the minimum sacrifice required to keep people in the group increases with the level of oppression in period two.

Second, the model focuses on the choice of an individual in period one, that is, the decision about joining the group and making the sacrifice. The model predicts that the following characteristics make people more likely to join the group: it is those with a high preference for religion and low sensitivity to repression, those expecting lower intensity of repression in period two, and those with a low wage rate even without the sacrifice. That is, the group is likely joined by true martyrs, optimists, and people with nothing to lose.

Empirically, those predictions are difficult to verify at the individual level. Even if people join the religious group due to unsubstantiated optimism, they are likely to adjust their personal narrative in response to cognitive dissonance (Ferrero, 2014). At the societal level, behavior consistent with the model manifests in persistent religious activity despite the repression. However, there are alternative explanations consistent with such a development; those should also be discussed in relation to the model.

Minárik (2014) represents an application of a model of household allocation of time to religious participation in Central European post-communist countries. It is based on the classic model of Azzi and Ehrenberg (1975). The original model assumes that the household derives utility from the consumption of goods, the expected value of consumption in the afterlife, and religious participation itself. But it has been shown by Sullivan (1985) that the afterlife is unessential in the model; thus, it is also omitted in my paper.

The budget constraint corresponds to the standard microeconomic model of the household. The extension is that the household devotes time not only to work and home production (leisure) but also to religious activities. Consumption expenditures are constrained by the lifetime earnings of household members, which depend on the chosen working hours and the wage rate, the household's non-labor income, and the interest rate with respect to consumption smoothing over the life cycle. The combination of the utility function and the budget constraint gives rise to a well-defined maximization problem.

The assumption of a household's utility maximization leads to several conclusions regarding the behavior of its members. First, household members will devote different amounts of time to religious activity in proportion to their income (assuming their productivity is equal in this respect). Thus, in practice, the participation rate will be higher for women than for men, since men generally have a higher wage rate. Further, since investments in the afterlife are not compounded, people will prefer to work at younger ages and to engage in religious production at older ages. This explains the increase in religious participation with age. The growth of religious participation with age may be attenuated to some extent by wage growth over a lifetime.

In general, wages can be interpreted as the opportunity cost of religious participation in the model. In this sense, wage differentials explain not only differences in participation between men and women, but also differences in the observed religious participation of the members of minority groups or rural populations. Sullivan's (1985) paper also points to the substitution between the inputs of time and material resources. Individuals with higher wage rates shall have lower personal participation in religious activities but donate more money.

The model is applied to explain the growth of religious participation in post-communist countries in the early 1990s and the subsequent decline. The early 1990s were characterized by economic instability, decline of the GDP, high inflation rates in most countries and a sharp rise in unemployment due to structural changes. The decline of employment and real wages is especially relevant for religious participation as predicted by the model. One shall expect an increase of religious participation; a religious revival, as this is called in the sociology of religion, at least as measured by the attendance rate of religious services. By the end of the 1990s, socioeconomic conditions had improved in Central Europe. The situation in the late 1990s is commonly characterized by economic growth and lowered inflation, although the employment rates continued to decline in several countries. For those who were employed, real income has been rising on average in the new millennium. Following the model, the situation has turned worse for religion as the opportunity costs increased.

The empirical strategy in Minárik (2014) focuses on the microeconomic model. It aims to test whether individuals in Central European post-communist countries really did respond to economic incentives. For that purpose, the paper uses survey data from the International Social Survey Programme; at the time of writing data, from three waves of the survey concerning religion were available from 1991, 1998 and 2008.

The ISSP survey on religion provides data on both religious beliefs and participation. It also contains data on many relevant demographic characteristics. Unfortunately, it does not contain wage rates. Those were estimated using incomes and hours worked per week as reported by the respondents. That approach does not distinguish between labor and non-labor income; however, such approximation is unlikely to introduce any serious bias in the results. Wage rates were normalized relative to the average rate in each country and time period.

Several statistical methods were employed. First, participation rates were compared between those employed and those not employed. Second, among the employed respondents, a correlation between the wage rate and participation rates was examined. Third, a multiple logistic regression was used to predict weekly and yearly attendance with belief in God, Catholic affiliation, gender, age, education, employment status and wage. The effect of employment and wages was also individually examined across countries using interaction variables.

Minárik (2021) aims to explain why it took so long in Czechia to achieve church-state settlement in the post-communist period. Unlike the previous papers, which followed the tradition of Beckerian economics, this paper belongs to the field of public economics and the public choice theory although the general approach is similar to that in the previous two papers.

The paper starts with an empirical observation of the differences between Czechia and other Central European post-communist countries. The church-state settlement was achieved much later in Czechia, and it is the only country with complete financial separation of churches from the state. The explanation of the differences is based on the median voter theorem, the Edgeworth box, and the concept of efficiency in a pure exchange economy. The model is exposed verbally and graphically in the paper.

The model presents the issue of the post-communist church-state settlement as a two-dimensional public choice issue. One dimension concerns the property restitution, the other concerns the government financing of churches. Where the distribution of popular preferences is unimodal, the settlement follows the most-favored preference, that of the median voter. That seems to be the case in most Central European countries, but not in Czechia.

The distribution of preferences in Czechia is assumed to be bimodal. There is a strong anti-church sentiment which would prefer little or no property restitution as well as no government financing. Churches and their members stand in opposition to that; however, they represent only a small minority of the Czech population. The status quo before negotiation of the settlement, that is, no property restitution and full government financing, was unacceptable to both groups.

Further, it is assumed that the two groups in Czechia do not see both dimensions as equally important. The anti-church group felt more strongly about the government financing of churches while it was more inclined to accept property restitution as a continuation of the general restitution process. At the same time the churches were more inclined to give up government financing in favor of the property restitution, as the proper property was a less risky source of future revenue. This created a contract curve distant from status quo ante, which prolonged the negotiation.

Regarding the empirical strategy, it goes beyond the simple remark that the model fits the observed duration of the negotiation process and its outcome. It also uses the scarce data from sociological surveys to document the different attitudes of the population toward churches and their financing. That part builds on data from both the European Values Study and Pew Research Center surveys and relies on a comparison of descriptive statistics as well as interpretations of religious attitudes by sociologists of religion.

Finally, Minárik (2022b) adds more empirical content to the ideas developed in the previous paper on the specific attitude of the Czech population towards organized religion. Unlike in the previous works, no new economic model is developed in this paper. The paper employs theories of assertive and passive secularism (Kuru, 2007) to describe and evaluate the situation in Czechia. While the

theory comes from political science, the data utilized in the empirical investigation belong to the area of public finance.

The empirical part of the paper focuses on the public finance support of the Catholic Church in the Czech lands. Particularly, it focuses on the salaries of clergy which manifest the attitude towards the Church. The data come from historical and contemporary statistical sources. Methods are, again, less sophisticated; they consist of comparison. First and most importantly, the development of clerical salaries is compared over time, between the communist and post-communist period. Additionally, the paper uses comparison between Czechia and Slovakia, two countries sharing a common history under communist rule.

To summarize, the methodology of the commented paper generally consists in formulation of theoretical model explaining some social phenomena connected with religion and test them against the empirical observations. The models are presented either formally (as in Minárik, 2014, 2018 and 2022a), or verbally (as in Minárik, 2021). Empirical strategy in the presented papers uses statistical methods (Minárik, 2014), historical case studies (Minárik, 2022a and 2022b), or the comparative approach (Minárik, 2018, 2021 and 2022b). Those methods are in line with the general practice in the field of the economics of religion.

## **4. Results**

Research in the economics of religion provides explanations of religious phenomena from the economic perspective. Better understanding of those phenomena is valuable as such since religion represents an important element in society. More in line with the traditional view of economics (defined by its object of study rather than its methodological approach), it also provides models applicable elsewhere. This section provides an overview of the findings in the commented papers.

Minárik (2018) offers a model of church operation under repression. The model predicts that, absent any costs of diversified operation, it is advantageous for a church to operate both legally and underground. If those costs are positive, the church is more likely to diversify where the difference between the church's intended operation and what the state allows is larger, that is, where the repression is tougher. Further, the churches that claim exclusivity, such as the Catholic Church as compared to mainstream Protestant churches, are more likely to diversify.

The paper illustrates and tests the prediction with a comparative case study of communist Poland and Czechoslovakia. While in Poland the Catholic Church enjoyed relative freedom, religious repression in Czechoslovakia was the toughest in Europe, except for that in the Soviet Union and

Albania (neither of those countries belongs to the Western Christian tradition). The conditions for the operation of churches were radically different in those two countries; thus, the strategy should have also been different.

Indeed, the reality is in line with the model. In Poland, the Church had not developed any underground structure. Traces of underground activity can be found in the initial period of Communist rule when the Communists employed some harsh repressive measures. However, since the Church was soon able to achieve a favorable compromise with the state, the seeds of an underground church never developed further.

On the contrary, the Church in Czechoslovakia, facing serious repression, developed an extensive underground structure parallel to the official operation of the Church. The Church never ceased to seek compromise with the Communist state, so it could minister to its more risk-averse (or relatively less religious) members. At the same time, believers looking for religious services untainted by the compromise could have satisfied their needs within the underground Church.

The model is applicable beyond the two cases debated in the paper. In Minárik (2022c), I developed the idea further, claiming that the mode of operation (actually, the ratio between legal and illegal operation) is a function of the level of repression; the paper is not part of the collection, and it is discussed in the next section. The model may be useful in explaining the religious situation in China and other countries, where governments repress religion. The Chinese case in particular resembles that of Czechoslovakia.

Further, the model is applicable beyond the economics of religion. There are political groups, such as the communists themselves, operating legally and illegally in different countries, and sometimes in both modes. Finally, the paper aims to attract the attention of economists to the problem of legal and black markets existing in parallel and to the behavior of organizations not aimed at profit maximization. Such situations are not too common, yet they exist in the real world, and the economic literature should not ignore them.

Minárik (2022a) offers a model explaining the persistence of opposition to an oppressive regime. It predicts that the membership in the oppressed religious group is more likely to be persistent if it is connected with an initial sacrifice affecting both religious life and secular productivity. The model does not focus on the true martyrdom, that is, the cases where people join the group due to a high preference for religion. It explains the behavior of the people who join the group due to misjudgment regarding future development but stay in the group even when they learn about the misjudgment.

The model predicts a trap created by the initial sacrifice. Due to that trap, some members do not leave the group despite the continuing or even increasing repression. The predictions of the model are difficult to observe at the individual level. Those who joined the group due to misjudgment and stayed due to the trap may reinterpret their previous choice in reaction to cognitive dissonance.

At the societal level, the trap shall manifest itself as a hysteresis in respect to measures of religious activity; particularly the decline of religiosity shall lag behind the increase of repression. When it appears that the antireligious measures soften or the oppressive regime will end soon, people are more likely to join the oppressed religious group. And even if that does not happen and the repression continues, members do not leave the group due to the trap and continue to practice religion.

Empirically, that explanation fits well into the data on religiosity in Communist Czechoslovakia. During Communist rule, religiosity in Czechoslovakia declined; however, the decline was uneven. In the first two decades after 1948, church attendance fell significantly; the decline was somewhat slower in Slovakia. In the late 1960s during the period of Prague Spring, there was a minor religious revival in Czechia, and there was the stabilization of religious activity in Slovakia. Notably, it did not end with the Soviet invasion of 1968, and church attendance increased well into the 1970s. The revival is observable in different measures of church attendance as well as from the data on Catholic baptisms and marriages.

The general decline of religiosity during the communist period is unsurprising. It is possible that the forced secularization brought about by the communists only accelerated the trend of secularization observable elsewhere in Europe. However, the revival of the 1970s does not fit that trend. Furthermore, the communist antichurch policy, which was relaxed in the 1960s, tightened again in the period of “normalization” after 1968. Despite that, the trend of secularization was temporarily reversed. Such development fits the predictions of the model well. The model is also consistent with the post-1990 religious revivals observed across Central and Eastern Europe.

In Minárik (2014), the focus is on religiosity in Central Europe in the post-communist period. Post-1990 religious revivals have attracted significant attention in Western sociological literature, particularly connected to the approach of religious economy. The subsequent decline of religious activity has been studied less in that literature; perhaps because it is generally in line with the trend in Western Europe.

The model predicts that people are sensitive to opportunity costs even when deciding about religious participation. Thus, the revival could be attributed to the decreasing real wages and

increasing unemployment in the early post-communist transition. Similarly, the subsequent decline of religious participation could be attributed to economic recovery, improving labor income and lower unemployment.

The empirical part of the paper confirms the sensitivity to opportunity costs. There is a significant difference in participation rates of employed people and others across time and countries; that difference is typical for frequent participation (at least once a week), but less so for occasional participation (at least once a year). Among those who are employed, there is often a negative correlation between estimated wage rate and religious participation; however, that result is not consistent across the countries examined in the paper.

The effects of employment and wage rates are best separated from other relevant factors in multiple regression analysis. Both employment and wage rate is negatively related to frequent (weekly) participation. When it comes to occasional (yearly) participation, the effect of employment is positive, and that of wage rate is negative but statistically insignificant. Another model interacting wage rate and country shows that wage rates have significant negative effects in Poland and Slovakia, while the effect is positive in Slovenia. The regression models also confirm the effect of age, in line with the model, and several control variables (belief in God, Catholicism, gender and education).

In a way, the paper presents a challenge or an alternative to the most-favored “economic” theory regarding the post-communist transition, that is, the supply-side explanation. That theory postulates that the revivals are brought about by deregulation and increase in competition. Indeed, deregulation of the religious market occurred in the post-communist countries; however, the competition did not increase significantly in the Central European religious markets. To the contrary, as pointed to by Froese (2004), the end of state-sponsored atheism as a competitor in the religious market has sometimes resulted in a religious monopoly. Yet the revivals occurred; those facts support a demand-side explanation.

Minárik (2021) focuses on the post-communist church-state settlements, an issue that belongs to the area of public economics. The model explains why the settlement took so long in Czechia, much longer than in other Central European countries. Building on public economics and public choice theories, the paper attributes the duration and the outcome of the negotiations between Czech churches and the government to the specific preferences of the Czech population.

The Czech church-state settlement in Czechia is specific as it included a full compensation for the property taken by the Communists (composed of property restitution and financial compensation)

and a complete financial separation of churches from the state. In contrast to the situation in Czechia, the situation in other Central European countries favored compromise combining partial property restitution and the continued financial support of churches by the state.

The paper attributes the difference between Central European countries to the different attitudes of the people towards organized religion. While those attitudes are assumed to be unimodal in Poland, Slovakia and Hungary, with the median voters being positioned differently in those countries, in Czechia, it is estimated that the population is divided into two distinct groups, one pro-church and one anti-church. Thus, as there was no modus to be followed by the public policy, the government engaged in lengthy negotiation with the churches. Since both parties to that negotiation were willing to trade public subsidies for property restitution, the resulting settlement includes financial separation combined with an extensive property restitution and compensation for the property taken.

There is little direct empirical evidence to corroborate the predictions; however, there are some facts supporting the explanation. Among the Central European nations, Czechs have by far the lowest confidence in churches, and Czechia is the only country in the region where the people who have no confidence at all outnumber those who have a great deal or quite a lot of confidence, according to the European Value Study. Survey data also show a significant decline of confidence in churches over the 1990s. A similar picture is provided by church attendance rates. The relative confidence and attendance rates generally correspond to the public support for churches. Additionally, a survey by the Pew Research Center shows that Czechs, as compared to Hungarians and Poles, are less inclined to agree with state financing of churches,.

The last paper, Minárik (2022b), focuses on clergy remuneration in the Czech lands under Communism and in the post-communist period. Based on archival data and the statistics from the post-1990 Ministry of Culture, it relates the state-paid salaries of clergy to the average wages of the general population. Interestingly, the development in the pre-1990 and post-1990 period have much in common with respect to clergy salaries.

The low salaries of the clergy are not surprising under Communist rule. Initially, in 1949, salaries were set somewhat above the average wage in Czechoslovakia. However, they were not increased in the subsequent period, ignoring both inflation as well as the growth of wages elsewhere. Thus, the purchasing power and the relative income of the clergy declined significantly. Attempts at a reform in the late 1960s were unsuccessful due to the Soviet invasion of 1968. An increase of the salaries only came in the 1980s, but even that increase did not make up for the growth of the average wages in other professions.

The post-1990 period is more surprising. Nominally, the political regime changed its attitude towards religion. Regulations of religion were removed in 1990, some of the church property was restituted, and the state-paid salaries to the clergy were significantly increased to a level somewhat above the average wage of the general population. However, in the subsequent year, the salaries were only occasionally increased, and the increase never caught up with the growth of the average wage in Czechia; they were kept at a rate between 60 and 70 per cent of the average. Thus, even if the salaries never got as low as they were in the 1970s, they stayed in the same proportion to the wages of the general population as that of the late 1980s.

The paper also compares the state-paid salaries to clergy in Czechia and Slovakia. The two countries share the same history, and until 2012 they both kept the old communist law of 1949 establishing the salaries. Interestingly, the ratio of the salaries paid to clergy was similar in both countries after 2000. However, one should not conclude that there is no difference in the attitude towards religion between the two countries. In Slovakia, the salaries were paid even after most of the church property had been restituted to the churches before 2000.

The comparison of pre-1990 and post-1990 salaries demonstrates the attitude of Czechs towards (organized) religion. The collapse of Communist rule in 1989 ended the period of religious repression but did not change the attitude of Czechs. The transitional period is marked by a struggle between the assertive secularism typical for the former regime and the passive secularism typical for a significant portion of Czech society. That struggle hindered the final church-state settlement which was only achieved in 2012 with a restitution of church property taken by the communists and the financial separation of the churches, i.e., the abolishment of the state-paid salaries. The empirical evidence presented in RAP is in line with the model presented in Minárik (2021).

## **5. Discussion**

There are limits to the economics of religion as well as to the particular analyses presented in the collected papers. The former limits are extensively discussed in the literature, particularly that which is critical to the rational choice approach (e.g. Bruce, 1999; Young 1997; Jerolmack and Porpora, 2004; Sharot, 2002), but also elsewhere. In the following text, the discussion is restricted to the papers presented above. In addition to the limits, this section focuses on the possible extensions of the proposed models beyond the economics of religion. The final part is devoted to further lines of research.

Minárik (2018) could be criticized both on the theoretical and the empirical level. Regarding the model, one may question the assumptions of the model. Taking the positivist approach, such questions are irrelevant, and only the predictions of the model matter. However, when it comes to explanations of historical events, the material for empirical verification of the predictions is limited. Yet economists try to provide such explanations (as Ekelund et al., 1996, with regard to the Medieval Church).

The empirical part could be criticized for relying on a comparative case study with only two cases included. In a recent study, Minárik (2022c), I have developed the idea of Minárik (2018) further; the newer study claims that the combination of legal and underground operation chosen by a church is a function of the level of repression. The study relies again on a comparative case study although now it includes four countries with different levels of repression instead of just two.

In the case of Minárik (2022a), one may ask about alternative explanations that would fit the same observation, that is, the lag between the increase in the level of repression and the decline of religious activity. A simple alternative model where people respond to immediate costs and benefits does not fit. An explanation based on imperfect information does not seem plausible. What actually fits is the socialization hypothesis of sociologist Ronald Inglehart (see, e.g., Inglehart 1997). Inglehart's theory concerns values, but it can be extended to practices as well. It claims that the condition in one's pre-adult period is what matters the most, more than the conditions occurring later. However, the model presented in Minárik (2022a) and the socialization hypothesis do not compete; actually, the model can be viewed as one interpretation of the socialization hypothesis within the rational choice framework.

Both Minárik (2018) and Minárik (2022a) offer further applications beyond the economics of religion. The former paper attracts attention to situations where legal and black markets exist parallelly. Also, it adds to the existing economic literature on organizations (firms) that do not maximize profit but focus on alternative goals. In this case, it is the maximization of consumer welfare. Minárik (2022a) contributes to the literature on illegal and terrorist organizations and provides additional arguments for certain strategies that were proposed in the earlier literature.

Unlike the previous papers, Minárik (2014) contributes more to the sociological literature. That could be listed among the limits. On the other hand, the paper is based on a solid economic model; thus, it provides evidence on how economists can contribute to other social scientific disciplines in line with the imperialist tradition. The same could be said about Minárik (2021), which provides an economic view of a political issue.

In the Czech context, the presented papers are pioneering. It is unlikely that the economics of religion would ever become a major stream of research, yet it provides an inspiration to economists to extend their research beyond the traditional topics of economic research. At the same time, the economics of religion provides inspiration to sociologists of religion and other researchers with regard to the available methods of research.

Being an interdisciplinary area of research, the economics of religion is naturally open to multiple criticisms. From the perspective of sociologists, it is viewed as reductionistic; indeed, the methodology of the economics of religion is very narrow compared to the wide scale of methods used in the sociology of religion. From the perspective of economists, if they are at all interested in the topic, the research may perhaps seem shallow and distant from what economists are supposed to do.

Finally, let us consider further lines of research. The commented papers focus on the communist and post-communist period. From the Czech perspective, it would be interesting to extend the analysis further back into history. Czech religious history is marked with a formal monopoly of the Catholic Church which ended with the establishment of Czechoslovakia in 1918. Bohemia, especially its northern part, was religiously very pluralistic in the 1920s and 1930s, making it an ideal environment to empirically test the religious economy theory.

The research can also be extended beyond the Central European context. Among the countries with illiberal political regimes, the Chinese religious market in particular attracts the attention of scholars; there are interesting parallels between the situation in Communist Czechoslovakia and China. However, the models proposed in the papers presented above can also be applied elsewhere. The current situation in the German Catholic Church could perhaps be interpreted in terms of the model presented in Minárik (2018 and 2022c).

Even further, the model could be extended into areas closer to the traditional economic research. There are different organizations, both profit-oriented firms and non-profit organizations, facing similar conditions to those described in religious markets. Perhaps the models developed in the presented research papers could be employed to account for the choices made by those organizations.

Ultimately, economists should not narrow down their area of interest, so as not to lose relevance as social scientists. The warning was aptly put by F.A. Hayek (1956), "Nobody can be a great economist who is only an economist – and I am even tempted to add that the economist who is only an economist is likely to become a nuisance if not a positive danger" (p. 463). If nothing else, the

economics of religion stands as a reminder of how far economic analysis can be extended beyond the traditional themes.

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# The collection of papers

The following five papers are part of the collection:

1. Minárik, P. (2018). An economic model of religious organization under oppressive regulation. *Journal of Economics*, 124(3), 289–302, doi:10.1007/s00712-017-0578-9
2. Minárik, P. (2022a). The persistence of opposition in an oppressive regime: The case of the Catholic Church in Czechoslovakia. *Rationality and Society*, 34(2) 218–236, doi:10.1177/10434631221092759
3. Minárik, P. (2014). Employment, Wages, and Religious Revivals in Postcommunist Countries. *Journal for the Scientific Study of Religion*, 53(2), 296–315, doi:10.1111/jssr.12113
4. Minárik, P. (2020). Post-Communist Church-State Settlements in Central Europe: Why Did It Take So Long in the Czech Republic? *Journal of Church and State*, 62(4), 654–670, doi:10.1093/jcs/csz083
5. Minárik, P. (2022b). From the Communists and Post-Communists Alike: State-Paid Salaries of the Clergy in the Czech Lands 1949–2012. *Politics and Religion*, 15(2), 374–387, doi:10.1017/S1755048321000158